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Porn by Any Other Name? A Constitutional Alternative to Regulating "Victimless" Computer-Generated Child Pornography

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PORN BY ANY OTHER NAME? A CONSTITUTIONAL ALTERNATIVE TO REGULATING "VICTIMLESS" COMPUTER-GENERATED CHILD PORNOGRAPHY

Every major technological innovation goes through several phases before it can be assimilated by a culture. At first it is externalized in an artificial setting such as a stage, a page, a screen, or any other display technology. Second it works its way into the psyche of the user even as its user interacts with it one way or another. When it finally penetrates the user during the course of the last stage of assimilation, it becomes a psychological reality, it becomes the normal way of being, of thinking, of feeling, of living.¹

I. INTRODUCTION

Smith² earns his living by creating child pornography, using as his subjects young children between the ages of five and fourteen. Although he has no sexual attraction to the children, he has found that he can make good money by selling pictures of himself engaging in various types of sexual intercourse with children; so he does not mind molesting children in order to make a profit. It is very easy for him to have access to children, by virtue of his job as a custodian at a grade school. Over the past five years, he has had sexual intercourse with over 200 children and his business has earned him over \$500,000. As evidence of his many encounters with various children, Smith has his garage filled with videocassettes and still photographs that he has developed in his own darkroom.

Jones is a pedophile who enjoys looking at pictures of children engaging in sexual intercourse. Although he has never molested a child himself, he has filled his basement with thousands of pictures of other people molesting young children. He has purchased these pictures from various contacts that he has made over the years. The pictures are mostly Polaroids and those obtained from low-quality magazines. Jones has also stored thousands of child pornography

1. Susan Wyshynski & Vincent J. Vincent, *Full-Body Unencumbered Immersion in Virtual Worlds*, in *VIRTUAL REALITY: APPLICATIONS AND EXPLORATIONS* 123, 144 (Alan Wexelblat ed., 1993) (quoting Derrick de Kerkhove, co-director of the Marshall McLuhan Program).

2. The three scenarios presented here are all hypothetical.

images on his computer's hard drive, images that he obtained in various ways. Some of these images he purchased from friends as files on floppy disks. Others he obtained by e-mail or by downloading them from various sources on the Internet.³ Jones has never inquired as to how these pictures were created. He has always assumed that the producers photographed real children while the children were engaging in sexual activities, but this has never bothered him.

Johnson is an out-of-work computer graphics designer. He, too, realizes the market potential in selling child pornography, but the idea of actually molesting a child disgusts him. He has no sexual interest in young children, but he desires to earn some fast cash. One day, he decides to use his skills to create "virtual child pornography"⁴ on his computer. Computer users can create this form of pornography without actually sexually abusing any children.⁵ Johnson simply cuts out a picture of a thirteen-year-old girl from a Montgomery Ward catalog and uses a scanner to turn it into a digitized image on his computer.⁶ He then combines the image of the girl's face with an image of an adult woman that he has obtained from Penthouse magazine, and the end results are several pornographic images of the girl, each one showing her in a different sexual pose. Johnson then transfers the images to a computer disk and sells the disk to an undercover police officer, who was posing as a collector of child pornography.

At first glance, all of these men appear to be trafficking child pornography. Smith's actions may seem more reprehensible because he engaged in the depicted sex acts. Some may argue that Jones's ignorance as to the production of his pictures offers him a legal defense. But a more interesting issue is whether Johnson can be convicted of creating or selling child pornography, when no real child was ever sexually exploited in the production of the images that he sold. To answer this question, it is necessary to know exactly what child pornography is and is not. This Note considers whether Johnson's images are truly child pornography within the Supreme Court's definition.

This Note argues that, although current child pornography statutes need to be amended to address the issue of computer-generated pornography, statutes that merely equate virtual pornography with traditional child pornography provide superficial solutions and are unconstitutional under the First

3. For a brief explanation of the Internet, see *infra* note 29.

4. See *infra* note 30.

5. See *infra* note 32 and accompanying text.

6. For an explanation of this procedure, see *infra* notes 32-42 and accompanying text.

Amendment.⁷ A recent amendment to federal legislation addresses the problems presented by the new technology, but it ignores the unique properties of child pornography which allow it to be regulated.⁸ The conduct required to create child pornography involves actual child abuse.⁹ The Supreme Court noted this in *New York v. Ferber* when it denied child pornography any First Amendment protection.¹⁰ However, virtual child pornography generated by computer graphics programs does not involve child abuse, thus it does not fall into the narrow category of unprotected speech that the Court recognized in *Ferber*.

This Note proposes that, in criminal prosecutions for the possession or production of child pornography,¹¹ federal law should allow a rebuttable presumption so that an image that appears to depict a real child engaged in sexual conduct will be considered child pornography. The effect of this presumption will be that, if an image appears on its face to be child pornography, the prosecutor will not be required to actually prove that the image depicts a real child engaging in sexual activity. This presumption will shift the burden to the defendant to prove, as an affirmative defense,¹² that the image is virtual pornography and that no child was sexually abused in its production. This presumption would keep the prosecutor's burden of proof within acceptable limits¹³ and allow the enforcement of the federal child pornography laws to continue with full force. This result would be due to the fact that habitual child pornographers, who tend to have hundreds or even thousands of pictures in their collections,¹⁴ will have to carry the burden of proving that each image in question did not involve the sexual abuse of a child in its production.

7. U.S. CONST. amend. I ("Congress shall make no law . . . abridging the freedom of speech, or of the press . . ."). For a background discussion of First Amendment principles, see *infra* notes 47-53 and accompanying text.

8. Child Pornography Prevention Act of 1996, 18 U.S.C.A. § 2252 (1996). See *infra* notes 96-98 and accompanying text.

9. "Child pornography necessarily includes the sexual abuse of a real child, and there can be no understanding of the special problem of child pornography until there is understanding of the special way in which child pornography is child abuse." U.S. DEP'T OF JUSTICE, ATT'Y GEN. COMM'N ON PORNOGRAPHY: FINAL REPORT 406 (1986) [hereinafter REPORT]. Child pornography is a recording of a child's sexual abuse. *Id.* at 411. See *infra* notes 240-41 and accompanying text.

10. *New York v. Ferber*, 458 U.S. 747, 764 (1982).

11. This note will propose an alternative amendment to the Child Pornography Prevention Act of 1996. See *generally* part V.

12. The amendment to the federal statute that is proposed in this note specifies the burden of proof as clear and convincing evidence. See *infra* notes 381-91 and accompanying text.

13. Many states, such as Illinois, still require the prosecutor to actually prove that the pornographic material in question actually depicts a real child engaged in sexual conduct. See, e.g., 720 ILL. COMP. STAT. 5/11-20.1 (West 1996).

14. The desire to have a large collection of pornographic pictures of children is a common characteristic of pedophiles. REPORT, *supra* note 9, at 407.

Therefore, those defendants who can prove that no child was harmed in making the images in question may have a limited affirmative defense, such as the one proposed later in this Note.¹⁵ However, this defense may only be used sparingly, in limited circumstances. Introducing such an affirmative defense into the federal child pornography legislation will ensure that the law does not reach beyond the purpose underlying the prohibition of child pornography, namely the prevention of the sexual abuse of children. Presently, the Child Pornography Act¹⁶ establishes an irrebuttable presumption that an image is child pornography, but such a presumption has a chilling effect on constitutionally protected speech, such as virtual child pornography.¹⁷ The affirmative defense contained in the amendment proposed in this Note will therefore serve to keep the federal legislation narrowly-tailored so as to withstand constitutional scrutiny under the First Amendment. Ignoring the distinction between real child pornography and virtual child pornography unconstitutionally expands beyond the narrow class of unprotected speech created in *Ferber*. The overbroad definition of child pornography recently adopted might also punish an otherwise innocent defendant who may have one or two computer-generated¹⁸ images on his computer, but no intention to ever molest a child.¹⁹

Section II of this Note will provide a background of the new computer graphics technology, as well as a brief historical background of First Amendment law as it relates to child pornography.²⁰ Section II also contains a background of the Child Pornography Act of 1996, a statute which is central to the discussion of this Note.²¹ Section III will discuss the potential effects of new computer technology on the child pornography industry.²² Section IV will analyze constitutional and other legal issues surrounding child pornography legislation. After discussing the government's interest in protecting the child subjects of pornography, this Section analyzes the constitutional requirement that

15. See generally part V.

16. See *infra* notes 96-98 and accompanying text.

17. See *infra* notes 19, 225 and accompanying text.

18. Computer-generated images refers to images that have been computer-enhanced or computer-manipulated by using one of the methods discussed later in this note. See generally notes 32-42 and accompanying text.

19. According to Alan Dershowitz, "[T]he vast majority of people who get their jollies from watching kids have sex do not themselves engage in sex with children." Alan Dershowitz, *Commentary*, L.A. TIMES, June 6, 1996, at B7. See *infra* notes 297-304. Legislation such as the Child Pornography Prevention Act of 1996 will criminalize the private activities of many computer users who will never engage in acts of sexual abuse. Ronald W. Adelman, *The Constitutionality of Congressional Efforts to Ban Computer-Generated Child Pornography: A First Amendment Assessment of S. 1237*, 14 J. MARSHALL J. COMPUTER & INFO. L.J. 483, 491 (1996).

20. See *infra* part II.A and II.B.

21. See *infra* part II.C.

22. See *infra* part III.

the statutes be narrowly and reasonably drawn so as not to restrict free speech which is unrelated to this interest.²³ Next, this Section will highlight the legal assumptions of the Child Pornography Act of 1996 in light of the *Ferber* decision to determine whether the legislation can pass a constitutional attack based on the First Amendment.²⁴ Additionally, Section IV will briefly address the "secondary effect" argument against pornography, and how this issue should be resolved when it comes to drafting legislation to respond to virtual child pornography.²⁵ Section V²⁶ will propose an amendment to the federal child pornography statute²⁷ which will include a realistic way to address technological change in the child pornography industry.²⁸

II. BACKGROUND

Before the constitutionality of any prohibitions on virtual child pornography can be analyzed, one must begin by examining the contemporary technological, legal and social backgrounds in which this type of pornography will exist. First, this Section provides an introduction to the computer graphics technology which pornographers will use to create virtual child pornography. After this will come a treatment of the legal background, including the relevant case law, followed by an exploration of the recent amendment to the federal child pornography legislation.

A. Computer Graphics Technology and Child Pornography

As with many other areas of criminal law, new computer technologies, including the Internet, have influenced the child pornography industry.²⁹ Some

23. See *infra* part IV.

24. See *infra* part IV.

25. See *infra* part IV.

26. See *infra* part V.

27. 18 U.S.C. §2252 (1996).

28. See *infra* part V.

29. The Internet is a vast computer network which extends worldwide. PAUL GILSTER, *THE INTERNET NAVIGATOR* 13 (1993). Science-fiction writer William Gibson, who coined the word "cyberspace," described the technological forum of Internet, or "matrix," as "a consensual hallucination experienced daily by billions of legitimate operators, in every nation . . . a graphic representation of data abstracted from the bank of every computer in the human system. Unthinkable complexity. Lines of light ranged in the nonspace of the mind, clusters and constellations of data. Like city lights receding." WILLIAM GIBSON, *NEUROMANCER* 51 (1984). The Internet has complicated the enforcement of child pornography laws, particularly bulletin board services (or "BBS," which allow users to download images after paying a "membership fee"; users are also usually allowed to upload their own files to the service), inter-relay chats (IRCs, which allow "real-time chatting" between users who can choose between public "rooms," which are filled with many users and are usually dedicated to a particular topic—for example, tennis, politics, or bestiality—or private channels which allow one-on-one chat), and newsgroups (which are organized

law-makers recognize the legal issues involving computer-generated pornographic images of children who appear to be engaged in sexual activities, or "virtual child pornography."³⁰ Virtual child pornography can be created by putting an innocent picture of a real child through a scanner, and converting it into an image which can then be manipulated into pornography.³¹ A pornographer can create virtual child pornography by using various computer graphics programs to create the picture of an imaginary child.³² For example,

by subject matter and allow postings of messages and files which can be read by other interested users). While the use of the Internet by pedophiles is a growing concern, this note will not address the issue.

30. The term "pseudo-child pornography" refers to media, and particularly to pornographic motion pictures, in which young-looking actors who have reached the age of majority play the parts of young children. No laws are broken since the performers only appear to be below the legal age. This note uses the term "virtual child pornography" to refer to pornographic images which have been produced with the use of a computer graphics program, and in which no real child was sexually abused or exploited in the making of the image. The term is used as an intentional parallel to virtual reality technology. *See generally infra* notes 160, 161.

31. Joseph N. Campolo, *Childporn.gif: Establishing Liability for On-line Service Providers*, 6 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 721, 735-36 (1996).

32. Senator Orrin Hatch (R-Utah) stated:

Today, visual depictions of children engaging in any imaginable form of sexual conduct can be produced entirely by computers without even using the actual children. [T]he computer equipment and expertise required to produce such high-tech kiddie porn is readily available to any individual. All a pornographer . . . needs is a personal computer with a few inexpensive and easy-to-use accessories, such as a scanner . . . image editing and morphing software costing as little as \$50 to \$100, all available at virtually any computer store or through mail-order computer catalogs.

Hearing on S.1237 Child Pornography Prevention Act of 1995 Before the Senate Judiciary Comm., 104th Cong. 870 (1996) (statement of Orrin Hatch, U.S. Senator) [hereinafter *Hearing*]. *See also* Campolo, *supra* note 31, at 735-36. The ability of pornographers to splice a legal photograph of a child with a legal photograph of adult pornography (to make it appear as though the child is engaged in sexual conduct) could be a way to circumvent child pornography laws. *Id.* at 736 (citing Joshua Quittner, *Computers Customize Child Porn*, NEWSDAY, Mar. 6, 1993, at 74). Soon, the new technology will become wide-spread: "Eventually, inexpensive software and hardware will be available which will allow one to create photo-realistic animated images in the privacy of one's own home." David B. Johnson, *Why the Possession of Computer-Generated Child Pornography Can Be Constitutionally Prohibited*, 4 ALB. L.J. SCI. & TECH. 311, 316 (1994). In addition, the possibility exists for creation of virtual child pornography by assembling several pictures of different children, or by simulating sexual situations involving youthful-looking adults. Lance Gay, *Target: Kid Porn in Cyberspace*, THE PLAIN DEALER, June 5, 1996, at 16A. In addition, it is possible to create virtual child pornography that professionals and physicians would have a difficult time determining whether it is real child pornography. *See Hearing, supra*, at 878 (quoting Chief U.S. Postal Inspector Jeffrey J. Duplika). Computer-generated images can become so sophisticated that it will be very difficult to tell if a computer file is a "real" image, made by merely scanning an existing photograph, or if it is an illusion, created or altered with graphics software. An interesting example of this technology can be found on the World Wide Web at <http://www.futurenow.com/campaign/poster.html> (visited Nov. 12, 1995). This site features a picture of a naked, imaginary person called Ima Dreamer who is half male, half female. *Id.* Even when examining the picture itself, one has difficulty telling where reality ends, and where the

a pedophile would obtain an innocent picture of a real child, such as those found in department store catalogs.³³ He would then use a scanner to turn this picture into a computer file.³⁴ At that point, he can bring the image up on his computer screen using a graphics viewer,³⁵ and he can edit the picture however he chooses using graphics software.³⁶ He could insert the child's face into pornographic pictures of adults, that he has obtained from legal magazines and scanned into his system. With a little editing, he can make it appear as though the child is engaging in any sort of sexual activity.

morphing begins. *Id.* Only by using logic does the viewer realize that the image is a fiction: the face is clearly that of a man, but most of the body appears female. *Id.* A recent Ameritech television commercial also illustrates the availability and capabilities of this technology. In this commercial, a young woman sends a computerized image of herself to a young man, and the man uses a graphics program to splice her face onto the body of an angel. Television Commercial: *Ameritech* (aired, Mar. 9, 1997) [hereinafter *Ameritech*].

33. Images of children can be found in any magazine or catalog which advertises children's clothing, toys, or other items marketed toward children or parents. For example, a Sears or J.C. Penney catalog would contain pictures of child models.

34. A scanner is a computer device which converts hard copies of pictures into binary computer files, which can then be stored on the computer hard drive just as any other file.

35. A graphics viewer is a computer program which allows a user to view a graphics file on the computer screen.

36. Several types of computer graphics software programs are available in various price ranges. One program, called "Morph," costs only \$12.99, and it allows the user to manipulate computer images in a variety of ways. Computer Software Product: MORPH STUDIO (Ulead Systems, Inc. 1994-5). The sleeve of this CD-ROM program contains an example of what can be done with the software: a young boy's image is transformed into that of an adult man. *Id.* The software promises: "Now you can change the world—in minutes. Turn boys into men, shoes into ships, muscles into mountains . . . and frogs into princes. With stunning visual effects, Morph Studio makes you the wizard of image transformation." *Id.* The software is not specifically marketed as a tool by which one can create child pornography and may presumably be used for various noble purposes. *See infra* note 225. *See also* Russel A. Rohde, *Manifesto for Digital Imaging and Manipulation*, 61 PSA JOURNAL 26 (1995).

This virtual child pornography³⁷ could then be sent through the Internet³⁸ to various newsgroups³⁹ or similar forums for pedophiles around the world to view. Alternatively, the pornography may never leave the creator's own computer screen. A pornographer or pedophile could also store virtual pornography images in the privacy of his or her own computer hard drive.⁴⁰ Unlike paper magazines and hard copies of pornography, computer images would take up very little physical space, making it easy for pornographers to conceal them.⁴¹

However, with this new technology, it would be virtually impossible for a law enforcement officer to tell, just by looking at the image, whether a real child was sexually abused in its production.⁴² Computer graphics technology has become so advanced that it would be very difficult for even a graphics expert to determine if an image has been altered.⁴³ And unless a lay person actually watched an image as it was created or computer-manipulated, he or she would not be able to distinguish an altered image from an unaltered one.⁴⁴

New technologies inspire new debates, often around constitutional issues. For example, sophisticated automatic weapons are the subject of Second Amendment debates,⁴⁵ and the use of thermal surveillance equipment has led

37. See *supra* note 30. The emergence of virtual reality technology raises many of the same issues that virtual child pornography does, especially issues related to the right to privacy. See *infra* note 160. As Lou Ming noted,

With virtual reality, a user could simulate acts that, if actually carried out, would be crimes. The crimes, though, would only take place inside the computer, and the imagination of the user. The drug-like quality of virtual reality prompted Jerry Garcia, the leader of the Grateful Dead band, to retort: 'They made LSD illegal. I wonder what they are going to do about this stuff.'

Lou Ming, *Computer Explores Realm of Senses in Age of Hyperreality*, July 23, 1992, available in LEXIS, Nexis Library, Reuters File. The future of virtual reality users in general will undoubtedly be affected by how much, if at all, virtual child pornography will be regulated. For more discussion of virtual reality and related issues, see generally *infra* part III and especially *infra* note 160.

38. The images could be sent via e-mail to particular people around the world, or they could be generally uploaded to a BBS. See *supra* note 29.

39. For a brief definition of a newsgroup, see *supra* note 29.

40. A hard drive, or hard disk, is a storage area for data on a computer.

41. See *infra* note 128 and accompanying text.

42. Campolo, *supra* note 31, at 735-36. Consumers can achieve photo-realistic quality by scanning their own photographs into digital form as a computer file. They can then manipulate the pictures with software costing less than \$500, and this would allow them to transpose features from one image and to another. This will result in an image that the lay-person is unable to distinguish from an authentic, scanned photograph. *Id.*

43. *Id.*

44. *Id.*

45. E.g., Symposium, *Violent Crime Control and Law Enforcement Act of 1994: The Great Assault Weapon Hoax*, 20 U. DAYTON L. REV. 619 (1995).

to legal discussions regarding the Fourth Amendment.⁴⁶ Computer graphics technology is no exception. Emerging technology allows users to manipulate the images of children, and this necessarily requires a discussion of child pornography and the First Amendment. But before the issues surrounding virtual child pornography can be analyzed, a proper legal background must be established.

B. The First Amendment, Strict Scrutiny, and Child Pornography

The First Amendment provides that "Congress shall make no law . . . abridging the freedom of speech, or of the press."⁴⁷ However, the U.S. Supreme Court has recognized that, in certain circumstances, some forms of speech create a danger of bringing about substantive evils that Congress has the right to prevent.⁴⁸ The test for whether a government can regulate a particular form or context of speech is normally one of strict scrutiny,⁴⁹ but when certain categories of speech are at issue, the test may be slightly different.⁵⁰ For example, with regard to obscenity,⁵¹ the government must merely convince a

46. E.g., Scott J. Smith, Note, *Thermal Surveillance and the Extraordinary Device Exception: Re-Defining the Scope of the Katz Analysis*, 30 VAL. U. L. REV. 1071 (1996).

47. U.S. CONST. amend. I.

48. *Schenck v. United States*, 249 U.S. 47, 52 (1919) (holding that Congress may suppress speech if the speech presents a clear and present danger that it will bring about substantive evils that Congress has a right to prevent). The Court, per Justice Holmes, noted that although the First Amendment protects the freedom of speech, it does not protect one from criminal or civil liability for falsely crying "fire" in a crowded theater. *Id.* The *Schenck* opinion reflects the notion that the courts must balance the government's interest against the freedom of speech in determining whether a regulation limiting a particular kind of speech is constitutional. *Id.* at 52.

49. In order for a government regulation to pass the strict scrutiny test, it must meet the following criteria: the regulation must be narrowly drafted; the government must have an overriding interest in preventing harm; the regulation must directly advance the government's interest; and the regulation must be no more drastic than necessary to serve the government interest. See *Turner Broad. Sys., Inc. v. F.C.C.*, 819 F. Supp. 32 (D.D.C. 1993). For a discussion of this standard, see *infra* notes 186-91 and accompanying text.

50. The Supreme Court has recognized that certain types of speech have such low social value that they can be regulated without the government meeting the strict scrutiny test. See, e.g., *Schenck*, 249 U.S. at 47 (holding that the advocacy of illegal action can be proscribed if the government meets a test of proximity and degree of harm); *Miller v. California*, 413 U.S. 15 (1973) (holding that obscene materials can be regulated and do not receive the highest level of First Amendment protection); *Chaplinsky v. New Hampshire*, 315 U.S. 568 (1942) (holding that "fighting words"—words which by their very utterance inflict injury or tend to incite an immediate breach of the peace—can be proscribed by the government, as they have very little social value, and are not the essential part of any ideas).

51. *Miller*, 413 U.S. at 24-25. *Miller* held that the trier of fact must determine whether a work is obscene, based on the following factors:

(a) whether "the average person, applying contemporary community standards" would find the work, taken as a whole, appeals to the prurient interest . . . ; (b) whether the work depicts or describes, in a patently offensive way, sexual conduct specifically

trier of fact that the work is legally obscene.⁵² If the government can meet this burden, the work is presumed to be without First Amendment protection, and it can, therefore, be regulated constitutionally.⁵³

In 1982, the U.S. Supreme Court in *New York v. Ferber* created a new category of unprotected speech: child pornography.⁵⁴ In *Ferber*, the Court held that the evils involved in producing child pornography, namely the sexual abuse of children, caused the material to fall outside of the protection of the First Amendment.⁵⁵ The government, therefore, met its strict scrutiny burden of proof.⁵⁶ New York's interest in preventing child sexual abuse at the hands of child pornographers was compelling enough to allow the banning of child pornography.⁵⁷

The *Ferber* decision empowered states to enact laws to combat the child pornography industry.⁵⁸ The enforcement of these laws is not hindered by the constitutional attacks based on the First Amendment issues involved in laws regulating obscenity,⁵⁹ because child pornography may be made illegal *per se*,

defined by the applicable state law; and (c) whether the work, taken as a whole, lacks serious literary, artistic, political or scientific value.

Id. at 24. For a more detailed analysis of *Miller*, see also *infra* notes 67-74 and accompanying text.

52. *Miller*, 413 U.S. at 24-25.

53. *Id.*

54. *New York v. Ferber*, 458 U.S. 747 (1982).

55. *Id.* at 764.

56. *Id.*

57. *Id.*

58. As a result of *Ferber*, numerous states have enacted criminal statutes prohibiting the production, promotion, sale, exhibition, or distribution of photographs of children engaged in sexual activity. REPORT, *supra* note 9, at 415. See generally ALA. CODE § 13A-12-197 (1996); ALASKA STAT. § 11.41.455, § 11.61.125 (Michie 1995); ARK. CODE ANN. § 5-27-304 (Michie 1995); CAL. PENAL CODE § 311.3, § 311.11 (West 1996); CONN. GEN. STAT. § 53a-193 (1994); DEL. CODE ANN. tit. 11, § 1111 (1995); GA. CODE ANN. § 16-12-100 (1996); 720 ILL. COMP. STAT. 5/11-20.1 (West 1996); IND. CODE § 35-42-4-4 (1996); MD. CODE ANN. § 419A (1996); MASS. ANN. LAWS ch. 272, § 29A (Law. Co-op. 1996); MISS. CODE ANN. § 97-5-33 (1996); MO. REV. STAT. § 573.010 (1995); MONT. CODE ANN. § 45-5-625 (1995); NEB. REV. STAT. § 28-1463.03 (1996); NEV. REV. STAT. ANN. § 200.730 (Michie 1995); N.H. REV. STAT. ANN. § 649-A:2 (1995); N.J. REV. STAT. § 2A:30B-3 (1995); N.Y. PENAL LAW § 263.05 (1996); OHIO REV. CODE ANN. § 2907.322 (Anderson 1996); OR. REV. STAT. § 163.684 (1995); 18 PA. CONS. STAT. § 6312 (1996); S.C. CODE ANN. § 16-15-335 (Law. Co-op. 1995); S.D. CODIFIED LAWS ANN. § 22-22-23.1 (Michie 1996); TENN. CODE ANN. § 39-17-902 (1996); TEX. PENAL CODE ANN. § 43.26 (West 1996); UTAH CODE ANN. § 76-5a-1 (1996); VA. CODE ANN. § 18.2-374.1 (Michie 1996); WASH. REV. CODE ANN. § 9.68A.070 (West 1995); WIS. STAT. § 948.12 (1994).

59. See *supra* note 7.

without any proof that the material is obscene.⁶⁰ Child pornography has been defined as photographs of actual children engaged in some sort of sexual activity, either with adults or with other children.⁶¹ Child pornography, of course, includes still photographs, but it may also take the form of videos, or still photographs that have been scanned into a computer image.⁶² However, child pornography does not include hand-made drawings, sculptures, or graphic written accounts of sex with children.⁶³ In order to understand a legal analysis

60. *Miller v. California*, 413 U.S. 15 (1973); *Stanley v. Georgia*, 394 U.S. 557 (1969). *Stanley* upheld an individual's right to privately possess obscene materials in his own home, but this holding does not create a right to deal in pornographic materials. It also does not apply to child pornography. *Stanley*, 394 U.S. at 568 n.11 (stating that "[w]hat we have said in no way infringes upon the power of the State or Federal Government to make possession of other items . . . a crime"). In another case, the Court held that, because Ohio's interest was the protection of the victims of child pornography, and that interest was greater than Georgia's paternalistic interest in *Stanley*, the mere possession of child pornography can be criminalized. *Osborne v. Ohio*, 495 U.S. 103 (1990). Traditionally, government has had to justify its regulation of sexually explicit material by showing that the material is obscene under the *Miller* test. See notes 67-74 and accompanying text. The *Ferber* Court held that the obscenity standard was inadequate to protect the government's interest in protecting children from sexual exploitation by pornographers. *Ferber*, 458 U.S. at 764. The Court therefore held that child pornography is a new category of speech, unprotected by the First Amendment, which may be regulated without consideration of any obscenity standards. *Id.*

61. REPORT, *supra* note 9, at 405. See also KATHLEEN C. FALLER, UNDERSTANDING CHILD SEXUAL MALTREATMENT 45 (1990) ("Child pornography may consist of children having sex with adults, with other children, or engaging in seductive or masturbatory activities solo. Photographs . . . are then made of children engaging in these acts. This material is produced for the gratification of adults, although those producing child pornography are not necessarily sexually attracted to children.") Most of the child pornography produced in the United States comes from practicing pedophiles who trade the pictures with other pedophiles. JOHN CREWDSON, BY SILENCE BETRAYED: SEXUAL ABUSE OF CHILDREN IN AMERICA 100-01 (1988). Pedophiles use homemade pornography to feed their fantasies, and the photographs serve as a permanent record of the children that the pedophile has known. *Id.* Some pedophiles collect child pornography merely to aid in fantasizing. REPORT, *supra* note 9, at 649. However, many have used it as a tool in the production of their own child pornography. *Id.* See also *infra* notes 147-51 and accompanying text.

62. Merely scanning a picture so as to make it a binary file and storing it on one's computer does not make it legal, although it does make it more difficult for law enforcement officers to discover that a person possesses child pornography. See *supra* text accompanying note 40.

63. The Supreme Court held that the nature of the harm to be combated requires that regulations be limited to works that visually depict sexual conduct by children below a specified age. *New York v. Ferber*, 458 U.S. 747, 764 (1982). The Court further noted that descriptions or depictions of sexual conduct, not otherwise obscene, which do not involve live performance or photographic or other visual reproduction of live performances, retain First Amendment protection. *Id.* Thus, the Court's new category of unprotected speech is quite narrow. See REPORT, *supra* note 9, at 596-97.

of the constitutional issues of virtual child pornography,⁶⁴ it is important to note that, until very recently, child pornography, by definition, required pedophiles⁶⁵ to sexually exploit children in order to create the materials.⁶⁶

The U.S. Supreme Court's creation of a new category of unprotected speech grew out of its prior rulings on obscenity.⁶⁷ In *Miller v. California*,⁶⁸ the Court held that obscenity does not fall under the protection of the First Amendment.⁶⁹ The Court provided a test for determining when a work may be deemed obscene and, therefore, not entitled to First Amendment protection.⁷⁰ In order for a work to be considered legally obscene, an average person, applying contemporary community standards, would have to find that the work, taken as a whole, appeals to the prurient⁷¹ interest.⁷² Second, the work must depict or describe, in a patently offensive way, sexual conduct specifically defined by the appropriate state law.⁷³ Third, the work must, when taken as a whole, lack serious literary, artistic, political or scientific value.⁷⁴

Miller addressed the issue of adult pornography, not child pornography.⁷⁵ Although the *Miller* Court held that the distribution of obscene materials can be regulated, in a prior case, *Stanley v. Georgia*, the Court held that the private possession of obscenity cannot be proscribed.⁷⁶ This ruling was based on a person's right to privacy in his or her own home, and the issue of the First

64. See *infra* part IV.

65. Pedophilia is the act or fantasy of engaging in sexual activity with prepubescent children as a repeatedly preferred or exclusive method of achieving sexual excitement. Symposium, *Panel II: Censorship on the Internet: Do Obscene or Pornographic Materials Have a Protected Status?*, 5 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 279 (1995) [hereinafter Symposium]. See also RANDOM HOUSE WEBSTER'S COLLEGE DICTIONARY 996 (1992) (defining pedophilia as "sexual desire in an adult for a child").

66. See *supra* note 9.

67. See generally *Roth v. United States*, 354 U.S. 476, 485 (1957) (holding that the First Amendment does not protect obscene material); *Stanley v. Georgia*, 394 U.S. 557 (1969) (upholding an individual's right to privately possess obscene materials in one's home); *Miller v. California*, 413 U.S. 15, 23-24 (1973) (providing a test for a fact-finder to use to determine if a work is legally obscene).

68. 413 U.S. 15 (1973).

69. However, the Court in *Miller* also held that regulations on obscenity are still regulations, and must therefore be limited. *Miller*, 413 U.S. at 23-24. See also *Roth*, 354 U.S. at 484-86.

70. *Miller*, 413 U.S. at 21.

71. *Id.* "Prurient" is defined as "having, or inclined to have, or characterized by lascivious or lustful thoughts, desires, etc. . . ." RANDOM HOUSE WEBSTER'S COLLEGE DICTIONARY 1088 (1992).

72. *Miller v. California*, 413 U.S. 15, 24-25 (1973).

73. *Id.*

74. *Id.*

75. See *Miller*, 413 U.S. at 18.

76. *Stanley v. Georgia*, 394 U.S. 557, 568 (1969).

Amendment was not paramount.⁷⁷ The Court, in *Stanley*, held that, notwithstanding the government's right to regulate the distribution of obscene materials, it does not have the right to control the moral content of a person's thoughts.⁷⁸ The Court reasoned that the government may not prohibit the mere possession of obscene material on the grounds that it may lead to antisocial conduct.⁷⁹

The Court took a considerably stronger stance on child pornography. In making its ruling, the Court in *Ferber* found the *Miller* obscenity standard⁸⁰ to be insufficient in addressing the problem of sexual exploitation of children.⁸¹ The Court therefore held that the state's ban on child pornography was constitutional, regardless of whether the material was "obscene."⁸² In a subsequent decision, *Osborne v. Ohio*, the Court held that the mere possession of child pornography could be criminalized⁸³ because the state has a compelling interest in protecting children from being exploited through pornography.⁸⁴

To date, the Supreme Court has decided no case that explicitly addresses the issue of virtual child pornography.⁸⁵ *Ferber* was the first, and is the leading, case on child pornography, and it should therefore guide the Supreme Court when it eventually addresses the issue of virtual child pornography. In addition, over the past several years, many cases have arisen which have addressed other issues involved in child pornography.⁸⁶

77. *Id.* (the Court also relied upon the Fourteenth Amendment in making its ruling).

78. *Id.* See also *infra* note 293.

79. *Stanley*, 394 U.S. at 565-66.

80. *Miller*, 413 U.S. at 20.

81. *New York v. Ferber*, 458 U.S. 747, 764 (1982).

82. *Id.*

83. *Osborne v. Ohio*, 495 U.S. 103 (1990). But see *Stanley v. Georgia*, 394 U.S. 557, 568 (1969) (holding that one has the right to possess obscene material in one's own home). *Id.*

84. *Osborne*, 495 U.S. at 110. Thus, the state was able to meet the strict scrutiny test, and the regulation withstood constitutional attack. *Id.* The government's interest in protecting children was found to override the pornographer's interest in producing the offending material, namely child pornography. *Id.*

85. But see *infra* note 359.

86. See, e.g., *Osborne v. Ohio*, 495 U.S. 103 (1990) (holding that the private possession of child pornography may be criminalized); *United States v. X-Citement Video, Inc.*, 115 S. Ct. 464 (1994) (holding that the *mens rea* requirement for the distribution of child pornography is knowledge, on the part of the defendant, as to the minority of the subject of the pornography); *United States v. Nolan*, 818 F.2d 1015, 1017-18 (1st Cir. 1987) (holding that it is within the range of ordinary competence for laypersons to determine if a photograph which appears to be child pornography is in fact a real photograph, or an artistic rendition).

One interesting case is *United States v. X-Citement Video*,⁸⁷ in which the Supreme Court held that the federal child pornography statute⁸⁸ required the government to prove that an offender had knowledge not only of the sexually explicit nature of the materials, but also of the age of the performers.⁸⁹ This controversial case established the level of scienter under the federal child pornography statute to be that of knowledge.⁹⁰ Although this more recent case did not specifically address virtual child pornography, the Court's ruling is a guideline just the same. This results because a legal analysis of virtual child pornography involves the issue of whether child pornography need consist only of sexually explicit images of actual children who are below a certain age.⁹¹ The Court's ruling in *X-Citement Video* is that, not only must the subject of pornography be actually below a certain age, but that the defendant must have knowledge of the subject's minority and of the sexually explicit contents.⁹² However, this case only addresses the *mens rea* requirement of a defendant-distributor and does not clearly resolve the issue of culpability on the part of the creator of the pornography.⁹³

Congress has also addressed the issue of virtual child pornography in a recent amendment to the federal child pornography statute.⁹⁴ The amendment attempts to resolve the issue of whether, under the law, virtual child pornography should be treated the same as traditional child pornography. As this federal amendment will be the focus of heavy analysis later in this Note, an understanding of the amendment itself, and the rationale for its enactment, is needed.

C. *The State of the Law Today*

Some states have not addressed the legal issue of virtual child pornography at all.⁹⁵ However, Congress, in The Child Pornography Prevention Act of

87. 115 S. Ct. 464 (1994).

88. 18 U.S.C.A. § 2252 (West 1984).

89. *X-Citement Video*, 115 S. Ct. at 472.

90. *Id.*

91. Virtual child pornography, on the other hand, contains images of either imaginary "children" or computer-manipulated images of real children. See *infra* notes 240-41 and accompanying text.

92. *X-Citement Video*, 115 S. Ct. at 472.

93. See generally *United States v. X-Citement Video, Inc.*, 115 S. Ct. 464 (1994). *Mens rea* is an element of criminal responsibility—a guilty mind. BLACK'S LAW DICTIONARY 680 (1991).

94. See *infra* notes 96-98 and accompanying text.

95. See, e.g., 720 ILL. COMP. STAT. 5/11-20.1 (West 1996) (requiring the prosecutor to prove that the defendant knew that any child was sexually exploited in the production of the pornographic material). For examples of similar state statutes relating to child pornography, see *supra* note 58.

1996,⁹⁶ amended federal child pornography legislation,⁹⁷ proposing to deal with this new technology by defining child pornography to include any material that appears to depict children engaged in sexual activity.⁹⁸ This legislation assumes that no actual difference exists between virtual child pornography and traditional child pornography.⁹⁹ This assumption has drawn attacks from critics who argue that the federal amendment expands the narrow category of child pornography created in *Ferber* to include those images which do not require the sexual abuse of children in their production.¹⁰⁰

96. 18 U.S.C.A. § 2252 (1996). The amendment to the federal child pornography statute was put into effect along with the Omnibus Consolidation Appropriations Act, Pub. L. No. 104-208, § 121, 110 Stat. 113 (1996).

97. *Id.* The Child Pornography Prevention Act of 1996 began in the Senate as S. 1237, 104th Congress (1995). This bill went into effect in October, 1996, and it amended 18 U.S.C. § 2252.

98. *See supra* note 96. The amendment adds the following new subparagraphs to 18 U.S.C.A. § 2256 (1996):

(8) 'child pornography' means any visual depiction . . . including any . . . computer or computer-generated image or picture, whether made or produced by electronic, mechanical, or other means, of sexually explicit conduct, where—

(A) the production of such visual depiction involves the use of a minor engaging in sexually explicit conduct;

(B) such visual depiction is, or appears to be, of a minor engaging in sexually explicit conduct;

(C) such visual depiction has been created, adapted, or modified to appear that an identifiable minor is engaging in sexually explicit conduct; or

(D) such visual depiction is advertised . . . in such a manner that conveys the impression that the material is . . . a visual depiction of a minor engaging in sexually explicit conduct; and

(9) 'identifiable minor'—

(A) means a person—

(i)(I) who was a minor at the time the visual depiction was created, adapted, or modified; or

(II) whose image as a minor was used in creating, adapting, or modifying the visual depiction; and

(ii) who is recognizable as an actual person by the person's face, likeness . . . unique birthmark or other recognizable feature; and

(B) shall not be construed to require proof of the actual identity of the identifiable minor."

99. *See infra* text accompanying note 114. *See also Hearing, supra* note 32, at 871.

100. The question whether the federal statutory amendment unconstitutionally expands the definition of child pornography beyond *Ferber* is the focus of this note. *See infra* part IV and accompanying footnotes. Many legal scholars say that the Act is plainly unconstitutional. *Child Pornography Crackdown on the Internet* (National Public Radio broadcast, Nov. 11, 1996). In a recent radio broadcast on All Things Considered, a National Public Radio program, Eric Friedman, guest commentator, and computer law expert at Hofstra University Law School, claimed that the law is unconstitutional because it prohibits the showing of any actor who appears to be under eighteen years old in a sexual act, even if the actor is an adult. *Id.* Friedman argued that this is a sweeping new definition of child pornography. *Id.* "That would probably cover angels cuddling in the corners of Rubin's paintings . . . 'Romeo and Juliet' or 'Lolita' . . . perfectly mainstream

The Child Pornography Prevention Act of 1996 rests on several congressional findings.¹⁰¹ Included in these findings are several alleged indirect effects of virtual child pornography,¹⁰² as well as the direct effects of traditional child pornography, most notably child sexual abuse.¹⁰³ These congressional findings are the result of a hearing before the Senate Judiciary Committee prior to the passing of the federal amendment.¹⁰⁴ Several social workers, law enforcement officers, and other professionals testified at this hearing as to whether the federal amendment was necessary, appropriate, and constitutional.¹⁰⁵

Laws purporting to address the dangers of child pornography tend to meet with more popular acceptance than other laws which might inspire constitutional debates.¹⁰⁶ Nevertheless, many critics have attacked the Child Pornography Prevention Act as being too broad.¹⁰⁷ The American Civil Liberties Union argues that the amendment is unconstitutional.¹⁰⁸ Other analysts are concerned that the amendment might lead to the suppression of legitimate multimedia or computer graphics art.¹⁰⁹ Legal critics, many of whom debated the question of virtual child pornography before the amendment was passed, seem torn on the issue.¹¹⁰ In order to understand the problem with the federal amendment as it relates to virtual child pornography,¹¹¹ a closer look at the legislation is required.

productions in which there appear to be minors engaged in sexually explicit activity." *Id.* See *infra* notes 225, 240-41 and accompanying text. Under Friedman's analysis, the Ameritech commercial could be the subject of a prosecution, since an adult female's face is spliced with the naked body of a childlike angel. *Ameritech*, *supra* note 32.

101. S. 1237, 104th Cong. § 1 (1996) (enacted).

102. *Id.* § 2 ((3) (finding that child pornography is used to seduce children into sexual activity); (4) (finding that child pornography is used by pedophiles and child sexual abusers as a model to act out sexual experiences with children, and that it therefore desensitizes the viewer to child sexual abuse); (7) (finding that creating virtual child pornography using a real child's image invades the child's privacy and reputational interests); (8) and (9) (finding that virtual child pornography is just as dangerous as real child pornography in that it can be used to seduce children just as easily); and (11) (finding that child pornography encourages a social perception of children as sexual objects and leads to sexual abuse and exploitation of children)).

103. *Id.*

104. See *supra* note 32.

105. See *supra* note 32.

106. See *infra* note 131.

107. See *supra* note 100; see also *infra* note 225.

108. John Schwartz, *New Law on 'Virtual' Child Porn Is Criticized*, SEATTLE TIMES, Oct. 6, 1996, at A24 (quoting Daniel Katz, legislative counsel of the American Civil Liberties Union).

109. See *infra* note 225.

110. See *infra* note 225.

111. See *infra* part IV and accompanying footnotes.

The federal law bars individuals from using images of real children who are made to look as though they were engaging in sexually explicit conduct, even if they were not so engaged.¹¹² An example of this is seen in the above hypothetical, in which Johnson splices a child's head with an adult's body. In addition, the law prohibits material which appears to depict actual children engaged in sex, which was not created using either a real child, or an image of a real child.¹¹³ An example of this would be if Johnson created a pornographic image using a child who he had completely made up using his imagination. As Senator Hatch, one supporter of the bill which amended the federal child pornography legislation, states: "if you can't tell the difference [between real and virtual child pornography] then there isn't any difference. And this bill says if it's so real or apparent, then it will be treated as if it's real."¹¹⁴

Federal child pornography legislation needs to be amended to effectively counteract child pornographers who may try to use new computer technologies as a loophole by which to escape criminal liability. Under the federal child pornography statute before it was recently amended,¹¹⁵ and under many state statutes,¹¹⁶ the prosecutor would carry the burden of proving that the pornography in question actually depicts real minors engaging in sexual activities.¹¹⁷ Although the current solution to this dilemma may not pass a constitutional attack based on the First Amendment, as argued later in this Note,¹¹⁸ it is possible to amend the prior federal child pornography legislation so as to punish culpable child pornographers within the bounds of the Constitution.¹¹⁹ In order to see why an alternative amendment to the federal legislation is required, it is necessary to examine the potential impact that computer graphics technology may have on the child pornography industry.

III. THE PICTURES, THE MARKET, THE LAW: HOW COMPUTER TECHNOLOGY MAY CHANGE THE CHILD PORNOGRAPHY INDUSTRY, AND HOW THE LAW CAN ADAPT TO THIS NEW TECHNOLOGY

In addition to the technological and legal backgrounds into which virtual child pornography will be introduced, an exploration of the social background

112. See *supra* notes 96-98 and accompanying text.

113. See *supra* notes 96-98 and accompanying text.

114. *Hearing, supra* note 32, at 894 (statement of Bruce Taylor, President and Chief of the Nat'l Law Center).

115. 18 U.S.C.A. § 2252 (1982).

116. See *supra* notes 13, 58.

117. See *supra* notes 13, 115.

118. See *infra* part IV.

119. This note proposes a constitutionally permissible alternative amendment to the federal child pornography legislation. See *infra* part V.

of this industry is also needed. The effects that virtual child pornography may have on the child pornography industry must be understood in light of relevant social paradigms. An understanding of how pedophiles might use virtual child pornography for seductive purposes is needed as well. The potential effects that computer graphics technology may have on society must also be considered before a full legal analysis can be understood.

A. The Effects of Computer Graphics Technology on the Pornography Market

Whether the new computer graphics technology is to be used for good or evil remains to be seen, and will no doubt rest in the hands of the owners of the computer scanners and software. Like most technology, the ability to manipulate photographs can be used in various ways, for various purposes, some not as noble as the rest.¹²⁰ Computer-generated imaging allows for law enforcement officers to project the age-enhanced images of missing children.¹²¹ It allows witnesses to give more detailed descriptions of criminal suspects to investigators.¹²² It has many benefits to entertainers as well as middle class individuals who self-indulge in posing for pictures that will be retouched and enhanced.¹²³ Unfortunately, like every invention from the printing press to the Internet, computer graphics technology provides the less-than-scrupulous few the opportunity to offend, libel, humiliate and obstruct others. But however it is to be used, this new technology may have some impact on the child pornography industry. These potential results need to be examined in order to properly understand a legal analysis of virtual child pornography.

As computer graphics technology becomes more accessible and sophisticated, virtual child pornography may soon take the place of those materials which require the sexual abuse of real children for their production.¹²⁴ And, if pornographers learn that virtual child pornography

120. See *infra* notes 157-60 and accompanying text.

121. *Helping Locate Children*, Executive Memo, GOV'T EXECUTIVE, Sept. 1992; Robert Janiszewski, *Digitized Photos Help Track Kidnapped Children*, 110 AMERICAN CITY & COUNTY, Dec. 1995, at 40.

122. Joseph J. Atick, *Face Recognition from Live Video for Real-World Applications*, 10 ADVANCED IMAGING 58 (1995) (promoting a software product called "Facelt," which could be used by police artists to help identify criminals).

123. Jill Charles, *Your Picture and Your Resume: More Bang for Your Bucks!*, 37 BACK STAGE 22 (1996) (discussing photographers that provide retouching services for up-and-coming actors).

124. *Hearing*, *supra* note 32, at 890 (testimony of Kevin V. Digregory) ("Soon it will not be necessary to actually molest children to produce child pornography All that will be necessary will be an inexpensive computer, readily available software, and a photograph of a neighbor's child shot while the child walked to school or waited for a bus."). *Id.* While it would disturb many parents to have photographs of their children used to fuel a pedophile's fantasy, an alternative—actual molestation—is a greater evil. See *infra* notes 250-52.

cannot be proscribed due to the First Amendment,¹²⁵ they will have an incentive to refrain from abusing real children to continue their business.¹²⁶

Less serious pornographers and pedophiles¹²⁷ may find virtual child pornography to be safer to produce than that material which uses real children, because the former can be produced in the privacy of their own homes, with very little risk of detection.¹²⁸ As a result, society might even benefit if a curious dabbler in pedophilia is allowed to vent his or her desire on a computer screen instead of ruining a child's life for a sexual experience.¹²⁹ If virtual child pornography is found to remain within the protection of the First Amendment, a pedophile could not be convicted for merely possessing it in his own home, even if the material could be considered to be obscene.¹³⁰

125. If virtual child pornography is not child pornography (as this note maintains), the material could not be proscribed unless it is found to be obscene under the *Miller* standard. *Miller v. California*, 413 U.S. 15 (1973). See *supra* notes 67-74 and accompanying text. But, even if the material is obscene, the private possession of it in one's home cannot be proscribed under *Stanley*. *Stanley v. Georgia*, 394 U.S. 557 (1969). Obscenity is unlike real child pornography, which can be illegal *per se*. See *Osborne v. Ohio*, 495 U.S. 103 (1990); see *supra* note 60.

126. This rationale, of course, would only apply to pornographers like Smith and Johnson, who have no sexual compulsion towards children. See *supra* part I. Habitual child molesters would probably not find computer-generated images to be a viable alternative. See *infra* notes 141-42 and accompanying text. These offenders are the most serious threat to children, because their desires go beyond the desires of Jones, who merely likes viewing pornography. See *supra* part I.

127. The "less serious pornographers and pedophiles" would include those persons who may have a passing sexual interest in children, but no real desire to sexually interact with children. *Id.* Some of these persons could be juveniles or young adults who will never present a real threat to children, but who may want to engage in producing virtual pornography of their peers or of imaginary persons as a way of dealing with sexual confusion, or of shocking and impressing their friends, or of gaining popularity. For an explanation of some of the uses for child pornography, see *supra* note 61 and *infra* notes 147-51.

128. Unless the pedophile chooses to share the images with outsiders, it is unlikely that he or she would ever be discovered. A family member or friend who had access to the computer would be the only person who would be able to tell what the pedophile was doing. See *supra* notes 40, 62 and accompanying text.

129. Although there is no direct victim of virtual child pornography, those who believe that the material should be proscribed argue that the possibility of indirect victims justifies regulations. See *infra* part IV.C. The indirect victims could include a child who is seduced by a pedophile who uses a computer-generated child pornography image, or a sexually abused child whose rights are forgotten when computer graphics technology prevents child pornography laws from being enforceable. Johnson, *supra* note 32, at 330.

130. *Stanley*, 394 U.S. at 564. For an analysis of *Miller*, see *supra* notes 67-74 and accompanying text. Local and state obscenity statutes would probably be able to prohibit the distribution of virtual child pornography, assuming that the state could prove that the material meets the test for obscenity; that is, the work must lack serious artistic, scientific, political, social or literary value, and it must appeal to those prurient interests so as to be offensive to the community. *Id.*

The crime of possession of child pornography carries with it a social stigma that could very well shatter one's reputation in the community.¹³¹ In order to avoid conviction, pedophiles, like Jones in the above hypothetical,¹³² would ensure that their collections included only those images that they could prove were not created using real children. Such persons would still probably be prosecuted, because a law enforcement officer would likely have difficulty telling if the image was real or fake. However, under a proposed amendment to the federal statute,¹³³ they would be able to exonerate themselves if they could prove that the images were virtual pornography.¹³⁴

This Note will argue that Congress should amend federal child pornography legislation to properly address the issue of virtual child pornography.¹³⁵ Under the amendment to the federal child pornography statute that is proposed in this Note,¹³⁶ habitual child molesters and serious pornographers like Smith and Jones will not be able to exonerate themselves by relying on the defense that the images which they possessed were merely virtual child pornography.¹³⁷ This will be due to the difficulty of proving that each image in their huge collection is virtual child pornography,¹³⁸ and that no one sexually abused an actual child in the production of the materials. Since many child pornographers and pedophiles are well-respected members of the community who have much to lose in a criminal prosecution,¹³⁹ they will likely choose to make and possess only

131. Unlike some other classes of offenders, child molesters and child pornographers are subject to the scorn of even the most violent criminals. See Symposium, *supra* note 65, at 299 ("No one likes a child pornographer; no one likes a pedophile. So proposals to regulate conduct to attack this problem does [sic] not inspire traditional First Amendment debate.").

132. See *supra* part I.

133. For the proposed alternative amendment to 18 U.S.C.A. § 2252, see *infra* part V.

134. See *infra* part V.

135. See *infra* part V.

136. See *infra* part V.

137. See *supra* part I.

138. Pedophiles commonly desire to have large collections of photographs of children. REPORT, *supra* note 9, at 407.

139. One government official has testified that:

[Pedophiles] come from all walks of life. The occupations of some of the offenders arrested in the United States include: doctors, teachers, lawyers, law enforcement officers, clergymen, and businessmen. . . . Many hold respected positions in their community and have concealed their interest in child pornography for years. The hobbies of offenders include coaching youth sports, dance instruction, leading youth groups, baby-sitting, and amateur photography.

Hearing, *supra* note 32, at 878 (testimony of Postal Chief Jeffrey J. Dupilka). Pedophiles come from all socioeconomic backgrounds and can include teenagers as well. Symposium, *supra* note 65, at 303. "The pedophile has an excessive interest in children. He has easy access to children and usually comes across as the 'nice guy'." *Id.* A small proportion of child sexual abusers are totally unknown to the victim prior to the abuse. KATHLEEN C. FALLER, UNDERSTANDING CHILD SEXUAL MALTREATMENT 49-50 (1990). Offenders can be intrafamilial or extrafamilial. *Id.*

those images which they are reasonably sure are virtual child pornography.¹⁴⁰ Many habitual child molesters will still insist on abusing children,¹⁴¹ but the economic and legal incentive should encourage the business-oriented pornographers who are just in it for the money,¹⁴² like Smith in the above hypothetical,¹⁴³ to switch to legal pornography.¹⁴⁴ The argument can be made that the more that pornographers choose to use virtual child pornography instead of real child pornography, the more that children will be saved from sexual exploitation.¹⁴⁵

Extrafamilial offenders include neighbors, friends of the family, and people who work with children, such as day-care providers, teachers, counselors, mental health practitioners, pediatricians or scout leaders. *Id.*

140. This of course assumes logic on the part of collectors of child pornography. *See infra* notes 141-42.

141. Naturally, the problem of child pornography does not only involve those pedophiles like Smith and Jones. *See* hypotheticals *supra* part I. Undoubtedly, there are people who both collect and view child pornography, and sexually molest children because of a sexual attraction to children, and not to merely to produce more pornography. *See supra* note 61. Economic and legal good sense may not be a legitimate concern with this sort of offender. It is precisely this sort of predator that our criminal justice system is designed to combat, but going after these people will undoubtedly be a task independent from the apprehension of those who merely create, possess and sell pictures. One author has argued that:

No one is suggesting that the effort to stamp out the actual production of child pornography be abandoned . . . since in order to produce such pornography it is necessary to sexually abuse a child. But the possibility must be considered that a more intensive effort to wipe out the clandestine exchange of existing child pornography amounts to treating the symptom and not the disease.

CREWDSON, *supra* note 61, at 247.

142. Some child pornographers may possess sexual records of children for their own fantasies. *See supra* note 61 and *infra* notes 147-51. However, others seem to be involved in the industry for the money. An "international child pornography ring," which investigators tracked through its post office boxes in Sweden and Denmark, was traced to a California woman who was netting \$500,000 a year selling mail-order pornography. CREWDSON, *supra* note 61, at 243.

143. *See infra* part I.

144. Although Smith would still have to conform to obscenity statutes if the material is considered obscene under the *Miller* analysis (*see supra* notes 67-74 and accompanying text), anti-obscenity laws are typically more lenient than those that deal with child pornography. *See supra* note 60. Also, although the private possession of child pornography can be criminalized under *Osborne v. Ohio*, 495 U.S. 103 (1990), the right to view obscene materials in one's own home has been upheld in *Stanley v. Georgia*, 394 U.S. 557 (1969).

145. If child pornographers can create what appears to viewers to be the same product on computer screens, as they would by sexually abusing real children, then real child may never be abused at all. *See* Adelman, *supra* note 19, at 491; Anne Wells Branscomb, *Internet Babylon?*, 83 GEO. L.J. 1935, 1955-56 (1995). The Child Pornography Prevention Act of 1996 itself rests on the assumption that computer graphics technology makes the actual sexual abuse of a child unnecessary for the production of virtual child pornography. *See supra* note 32 and *infra* note 203 and accompanying text.

B. The Use of Child Pornography to Seduce Other Children

Just as virtual child pornography has important legal differences from real child pornography,¹⁴⁶ it also has many practical differences. If it is used as a tool by which a pedophile can attempt to seduce real children for sexual abuse, virtual child pornography may prove an even greater danger than its "real" counterpart. It is necessary to understand how child pornography is used in order to determine the most effective way to address the issue of virtual child pornography.

Pedophiles use child pornography to achieve several goals. First, is the motive of personal sexual stimulation for the pedophile.¹⁴⁷ Second, child pornography is also used to reduce the inhibitions of a potential child sexual assault victim.¹⁴⁸ Third, there is evidence that pedophiles use child pornography as an instructional tool with which to teach children how to engage in sexual activities.¹⁴⁹ Fourth, pornography is produced to barter, sell or trade with other pedophiles.¹⁵⁰ Fifth, child molesters can use child pornography to blackmail a victimized child into silence.¹⁵¹ Sixth, some pedophiles use pornography as a seduction tool, to show intended victims that it is acceptable for children to engage in sexual intercourse with adults.¹⁵²

146. See *supra* part II.A (explaining how virtual child pornography is created differently from real child pornography) and *infra* part IV (analyzing the legal distinctions between virtual child pornography and real child pornography).

147. SHIRLEY O'BRIEN, *CHILD PORNOGRAPHY* xi-xiii (1983).

148. *Id.*

149. *Id.*

150. *Id.*

151. *Id.* Bruce Taylor gave the following testimony at the Senate Hearing: "Manipulated imagery has the same effect on pedophiles as actual child pornography, and therefore, is every bit as dangerous to society as actual child pornography." *Hearing, supra* note 32, at 895 (testimony of Bruce Taylor). This line of thinking assumes that the danger of actual child pornography is its effect on the pedophile, and not on the child subjects. Taylor maintained that "[i]t is irrelevant whether [the image] is 'real' or 'apparent', whether it is an actual crime scene photo or is a realistic fake or counterfeit recreation of one." *Id.* However, in *Ferber*, the Supreme Court did not use, as the justification for a ban on child pornography, the possible effect of an image on a pornographer; rather, it used the fact that child pornography is an actual crime scene photo. *New York v. Ferber*, 458 U.S. 747, 764 (1982).

152. REPORT, *supra* note 9, at 649 ("A child who is reluctant to engage in sexual activity with an adult or to pose for sexually explicit photos can sometimes be convinced by viewing other children having 'fun' participating in the activity. From a very early age children are taught to respect and believe material contained in books and will thus have the same beliefs about child pornography"). See also Johnson, *supra* note 32, at 327 ("In the case of computer-generated child pornography, the image will be even more persuasive to children than an obvious drawing because it looks lifelike. Furthermore, pedophiles may be able to fool young children into having sex with them if they show pictures of themselves having sex with what appears to be the child's friend or sibling.").

With virtual child pornography, a pedophile could manipulate a picture of a child's sibling or friend, and make it appear as though he or she had engaged in sexual intercourse with the molester.¹⁵³ A trusting child who is not educated regarding the tricks available with today's technology would assume that the picture proves that the event occurred, just as a naive child might believe a stranger who tells him that his parents sent the molester to pick the child up from school.¹⁵⁴ Seeing a friend, or particularly an older brother or sister, engaging in sexual conduct could send a message to the child that it is natural or acceptable for children to have sex with adults.¹⁵⁵ Thus, even more so than traditional child pornography, virtual child pornography has the potential to help a pedophile seduce a child.¹⁵⁶ Ignorance of the new computer graphics technology could prove disastrous to children who are targeted by pedophiles, and this threat is one of many potential effects that virtual child pornography may have on the child pornography industry.

C. The Need for a Healthy Skepticism of Pictures

History has shown that technology cannot be willed away to non-existence because certain uses of it are illegal or offend others.¹⁵⁷ Computer graphics programs will only become more sophisticated and accessible until, eventually, the psychological force of visual images are undermined.¹⁵⁸ A photograph will no longer be seen as a representation of absolute, truthful history. As images are seen to be changeable at will, they will command less reliance. Pornographic images will be no exception to this trend.¹⁵⁹

153. Johnson, *supra* note 32, at 327 (see quote cited *supra* note 152).

154. See *supra* note 152 and accompanying text. Children are taught to believe what they see in pictures, just as they are taught to respect books. Johnson, *supra* note 32, at 327.

155. *Id.*

156. A child might be more convinced to engage in sexual activities by looking at a pornographic image of someone that he or she knows, as opposed to looking at child pornography of a stranger. *Id.*

157. Science-fiction author Ray Bradbury has observed, "Each time we dream a new dream, blueprint a new blueprint or extrude into three-dimensional form some new electronic or mechanical technology, we birth at the same instant the Beast of Iniquity and the Angel of Mercy." RAY BRADBURY, YESTERMORROW 12 (1991). See also Michael Heim, *The Design of Virtual Reality*, in CYBERSPACE/CYBERBODIES/CYBERPUNK 70 (1995) ("[F]rom the past uses and abuses of technology . . . we can safely guess that [virtual reality technology] will bring about negative as well as positive developments").

158. Michael Featherstone & Roger Burrows, *Cultures of Technological Embodiment*, in CYBERSPACE/CYBERBODIES/CYBERPUNK 1-19, 5-6 (1995). See generally *supra* note 32.

159. For an example of how the reality of photographs can be deconstructed, see *infra* notes 171-78 and accompanying text. Catherine A. MacKinnon notes how pornographic images could be a particular target for such deconstruction. Catherine A. MacKinnon, *Vindication and Resistance: A Response to the Carnegie Mellon Study of Pornography in Cyberspace*, 83 GEO. L.J. 1959, 1961 (1995) ("Pornography in the marketplace of life . . . has fallen into a reality warp. Harmless fantasy, it is called.").

Virtual reality technology is contributing to the ambiguity of the reality of visual images.¹⁶⁰ Like television in its early days, virtual reality experiences may seem real to the participant, even though, in fact, they represent a mere induced hallucination.¹⁶¹ Soon, virtual reality will allow users to act out various scenarios in the privacy of their own homes, using whatever images they please.¹⁶² This could include using the image of a real person in one's own sexual fantasies, allowing the virtual reality participant to "use" the person's face and body without the person being physically present.

The ethics of using technology in this way are unclear. Although the person to whom the image belongs is not physically harmed or required to actually participate in the experience, the person may feel offended at having his or her image used in such a way, without consent.¹⁶³ Although such virtual reality technology is not yet easily accessible to the average person,¹⁶⁴ the ethical considerations have been speculated upon in various forums, including the science fiction media. These considerations include the right to have one's privacy protected with respect to personal fantasies, as well as whether using a person's image constitutes an invasion of that person's privacy.¹⁶⁵

160. The term "virtual reality" (VR) has been defined as a system which provides a realistic sense of being immersed in an environment. Featherstone & Burrows, *supra* note 158, at 5-6. "It is a computer-generated, visual, audible and tactile multi-media experience." *Id.* See KEN PIMENTAL & KEVIN TEIXEIRA, VIRTUAL REALITY 240 (1993) ("The ability to simulate and quickly change the worlds we play in should make us more aware of the transient nature, the illusion of the permanence in the real world.") Virtual reality will change the way we think about our visual realities, as it will transform our thoughts into commodities and artifacts that can be shared, or sold to others. *Id.* See also Heim, *supra* note 157, at 65-77, 69-70 ("VR will very likely transform the culture that uses it"). The term "virtual reality" is an oxymoron which provides a semantic twist which illustrates a tenuous grasp on reality, as well as the computerization of our lives. *Id.* at 65 ("Software now belongs to the substance of life. Life's body is becoming indistinguishable from its computer prosthesis"). Virtual computer images of even real people may undermine reality as it has traditionally been represented by still photographs, which were considered to be visual records of actual events. See also Vivian Sobchack, *New Age Mutant Ninja Hackers: Reading Mondo 2000*, in FLAME WARS: THE DISCOURSE OF CYBERCULTURE 11-28, 19 (Mark Dery ed. 1994) ("[T]he lived meaning of space, time, and subjectivity has been radically altered by electronic technologies in an experience that may be described, and cannot be denied").

161. In the early days of cinema, people would be amazed at the sight of a train coming at them from the motion picture screen. The visual impact was so powerful that people ran out of the theaters in fright. Brian R. Gardner, *The Creator's Toolbox*, in VIRTUAL REALITY: APPLICATIONS & EXPLORATIONS 91-121 (Alan Wexelblat ed. 1993).

162. See *supra* note 160.

163. See *infra* note 165 for an example of how this issue has been treated in popular culture.

164. John C. Briggs, *The Promise of Virtual Reality*, FUTURIST, Sept.-Oct. 1996, at 13, 16.

165. An interesting example can be seen in an episode of *Star Trek: The Next Generation*, entitled "Hollow Pursuits." In this episode, a timid character used a "holodeck" (a room which uses futuristic virtual reality technology to allow the user to act out fantasies) to live out his secret desires. *Star Trek: The Next Generation* (Paramount Pictures television broadcast, Apr. 30, 1990). To accomplish this, the character, Reginald Barclay, used the images of several associates in his

Computer graphics software will undoubtedly influence other areas of law, such as libel causes of action and other civil issues.¹⁶⁶ The question of when one can use another person's natural or manipulated image for one's own entertainment will need to be examined.¹⁶⁷ Individuals whose images are used without their permission may feel that libel law is insufficient to protect them from what they consider an invasion of privacy.¹⁶⁸ However, the legal issues of invasion of privacy and libel are normally found in the civil law forum, and they will therefore not be extensively addressed in this Note.¹⁶⁹

Computer graphics technology may also affect legal evidentiary issues. The weight of a picture as evidence will need to be reevaluated, in light of the mutability of images.¹⁷⁰ Even assuming that a still photograph is authenticated according to the Federal Rules of Evidence,¹⁷¹ the chance will always exist that it has been altered. A person who claims to have seen what the manipulated picture represents, and who attests to its accuracy, could be lying. An innocent witness could be unconsciously intimidated by the visual impact of the image and by the courtroom atmosphere and be unable to realize the inaccuracies in the

fantasy program and interacted with them in ways that would not have been possible for him in real life (such as having a romantic interlude with one and bullying others). *Id.* When the associates realized that Barclay was using their likenesses in such a manner, they reacted with shock and anger, even though they were not actually directly harmed by Barclay's diversions. *Id.* This episode illustrates the notion that one's privacy is infringed upon when his or her likeness is manipulated without permission. A similar theme is seen in another popular science fiction television show, *Star Trek: Deep Space Nine*. One episode contained a subplot in which a character, Kira, is courted by a very wealthy person to whom she is not attracted. *Star Trek: Deep Space Nine* (FOX television broadcast, Nov. 12, 1994). The person uses his wealth to create a "holosuite" (similar to a holodeck) program in which he would be able to have sexual intercourse with a virtual reality representation of Kira, in his own privacy. *Id.* When Kira discovers this plan, she is outraged and sabotages the development of the program. *Id.* These episodes on these popular science fiction television shows dramatize an important issue--whether such use of another's image for private fantasy is an intrusion into that person's privacy. *See also infra* notes 211-223 and accompanying text.

166. *See infra* notes 211-23 and accompanying text.

167. *See infra* notes 211-23 and accompanying text.

168. *See infra* notes 211-23 and accompanying text.

169. *See infra* notes 211-23 and accompanying text.

170. *See supra* part II.A and note 160. Because digital imaging can produce surrealistic, bizarre, and yet fully believable photolike images, photographic evidence in tomorrow's courtroom may carry no more credibility than do today's polygraph results. Daniel Grotta, *Digital Photography: Evaluation*, POPULAR SCI., Sept. 1992, at 62, 64.

171. FED. R. EVID. 901. Authentication of a photograph is typically performed when a witness, who actually saw what the photograph depicts, testifies that the photograph is an accurate representation of what the witness truly saw. If a photograph is not properly authenticated, it is deemed irrelevant and therefore inadmissible. FED. R. EVID. 403.

picture. Such a witness could then unintentionally authenticate what is, in reality, a fraudulent picture.¹⁷²

The recent wrongful death civil action against O.J. Simpson involved an evidentiary issue like this.¹⁷³ During the trial, a factual issue existed as to whether Simpson had either owned or worn a certain type of shoe.¹⁷⁴ A tabloid newspaper revealed a photograph of Simpson wearing what appeared to be the shoes, and the picture had apparently been taken a year prior to the civil trial.¹⁷⁵ Thus, the authenticity of the photograph was at issue in the trial, and photography experts testified as to whether they believed the image accurately depicted Simpson wearing the shoes.¹⁷⁶ Simpson's defense attorneys attempted

172. This would be a sort of brainwashing experience for the witness, much like Winston is brainwashed into seeing five fingers on his interrogator's hand in George Orwell's classic novel. GEORGE ORWELL, *NINETEEN EIGHTY-FOUR* 253-55 (1947). In that novel, the Marxist view of the mutability of the past is explored in several instances. A particularly relevant passage involves a photograph of party dissidents, which is viewed by Winston, before it is destroyed. *Id.* at 250. The existence of the photograph is the sole proof that the men existed, and when it is destroyed, the men cease to exist as well, since Winston's memory is dependent on some sort of objective proof. *Id.* As applied to virtual child pornography, this logic would hold that virtual child pornography really is child pornography, and that the event depicted in the image really did occur, even if, in the real world, it did not. This is a sort of "doublethink," or belief that the image is real, even while knowing full well that it is fantasy. "Doublethink," as explained by Orwell, is the power to hold two contradictory beliefs in one's mind's simultaneously and to accept both of them. *Id.* at 215. "To tell deliberate lies while genuinely believing in them, to forget any fact that becomes inconvenient . . . [and] to deny the existence of objective reality" are components of doublethink. *Id.* at 215-16. A related theme emerged in a science fiction movie from the last decade, *BLADE RUNNER*. In that movie, genetically-engineered humans with extraordinary strength and endurance, called "replicants," were pre-programmed with artificial memories at their creation. *BLADE RUNNER* (Columbia Tri-Star 1982). The replicants often did not know that they were artificially created, and that their "memories" were false. They were given forged photographs to substantiate their implanted memories, so that they might not suspect that they were in fact replicants, and not traditional humans. *Id.* For the replicants, the memories represented events that truly happened, even though they were in fact fantasies, or the borrowed memories of real humans. *Id.*

173. O.J. Simpson was sued in a Santa Monica, California, court for the wrongful death of Ronald Goldman and his deceased ex-wife, Nicole Brown Simpson, as well as for battery against Nicole. *More Photos Surface of Simpson's Shoes* (visited Mar. 7, 1997) <<http://www.cnn.com/US/9612/20/oj.update/index.html>>. Ronald Goldman and Nicole Brown Simpson were killed on June 12, 1994. *Id.*

174. Simpson argued that he never owned a pair of Bruno Magli shoes. *Id.* Evidence suggested that the person who killed Ronald Goldman was wearing such shoes. *Expert: Photo of Simpson Probably Faked* (visited Mar. 2, 1997) <<http://www.cnn.com/US/9612/20/oj.update/fake.html>>.

175. The photographs of Simpson wearing the shoes were taken on September 26, 1993 by E.J. Flammer, Jr. at Rich Stadium near Buffalo, New York. "My opinion is [that the photograph] is a fraud," Simpson replied. See *More Photos Surface of Simpson's Shoes*, *supra* note 173.

176. *Simpson Photo Analyst Denounced as JFK Conspiracy Buff* (visited Mar. 2, 1997) <<http://www.cnn.com/US/9612/18/oj.update/expert.html>>. The expert, Robert Groden, testified in the civil trial that the photograph of Simpson wearing Bruno Magli shoes could have been faked. *Id.* Groden, a Dallas photo technician who spent years analyzing pictures of the Kennedy

to argue that the photograph was altered, therefore challenging the apparent reality of the image.¹⁷⁷ According to this argument, the ability to manipulate photographs with contemporary technology requires a greater skepticism with regard to the evidentiary use of images.¹⁷⁸

Although virtual child pornography may appear on its face to be identical to traditional child pornography, a complete legal analysis is required in order to determine whether virtual child pornography can be proscribed to the same degree as its real counterpart. Because the production of virtual child pornography differs substantially from that of real child pornography, which involves the sexual molestation of a real child, the two types of pornography are not *per se* identical.¹⁷⁹ Whether they should be treated equally under the law is therefore a question of constitutional law, as well as public policy.

IV. LEGAL ANALYSIS

The First Amendment prohibits government from making laws which restrict the freedom of speech.¹⁸⁰ However, the Supreme Court has acknowledged the government's power to restrict some forms of speech in certain circumstances.¹⁸¹ One example of such a constitutional restriction on speech is laws that prohibit child pornography.¹⁸² Child pornography has no constitutional protection under the First Amendment,¹⁸³ but the issue of whether virtual child pornography is actually child pornography is a constitutional issue which can ultimately only be answered by the Supreme Court.¹⁸⁴ Since the issue of whether virtual child pornography can, or should,

assassination, testified regarding his inspection of the photograph, the negative, and the contact sheet. *See Photo of Simpson Probably Faked, supra* note 174. He claimed that the original photo showed what appeared to be "retouching lines" in the area of Simpson's legs. *Id.* Groden also testified that the frame of the photo, as seen on the contact sheet, was slightly larger than the rest of the photographs on the sheet. *Id.* Superior Court Judge Hiroshi Fujisaki warned the jury not to conduct its own research on the authenticity of photographs. *Id.*

177. *See Photo of Simpson Probably Faked, supra* note 174.

178. *Simpson Photo Analyst Denounced as JFK Conspiracy Buff* (visited Mar. 2, 1997) <<http://www.cnn.com/US/9612/18/oj.update/expert.html>>. The plaintiff's attacked Groden's credibility by establishing that he was a high school dropout with no formal training in photography. *Id.* Groden apparently was not able to testify as to exactly how the photograph was faked, and he had difficulty showing the jury which portion was faked. *Id.* The jury may not have taken Groden's testimony very seriously, but the fact that the issue of a photograph's authenticity emerged in such a high-profile trial at all may foreshadow the future of the use of photographs as evidence.

179. *See supra* notes 9, 91 and accompanying text. *See also infra* notes 240-41.

180. U.S. CONST. amend. I.

181. *See supra* note 50.

182. 18 U.S.C.A. § 2252 (West 1996).

183. *New York v. Ferber*, 458 U.S. 747 (1982).

184. The meaning of the Constitution and the First Amendment is the exclusive responsibility of the Supreme Court. *Marbury v. Madison*, 5 U.S. (1 Cranch) 137 (1803).

be treated as real child pornography under the law must be analyzed in light of the First Amendment, an analysis of the Supreme Court's relevant interpretations of the First Amendment is needed. These interpretations include *New York v. Ferber*, as well as other cases which address the issue of child pornography. In addition to case law, public policy is an important factor to be considered in any complete legal analysis of virtual child pornography.

A. *An Interest in Preserving the Rights of the Victims*

Although the right to free speech is guaranteed by the Constitution,¹⁸⁵ the Supreme Court has recognized the need for restrictions on speech in certain circumstances. However, if the government's limitation on speech is content-based,¹⁸⁶ a reviewing court must strictly scrutinize the regulation.¹⁸⁷ The test for strict scrutiny is three-fold. First of all, the government must have a legitimate, compelling interest.¹⁸⁸ Second, the regulation in question must be narrowly drawn.¹⁸⁹ Finally, the regulation must actually advance the government's interest.¹⁹⁰ To justify a regulation on the content of constitutionally protected speech, the government must show that its ends are compelling and that its means are carefully tailored to achieve those ends.¹⁹¹

The government's interest in protecting the child subjects of pornographic materials from sexual exploitation by pornographers is clearly compelling.¹⁹² And, because traditional child pornography required the producers to molest children, the Supreme Court assumed that prohibitions on the possession, creation or distribution of child pornography would further the state's interest.¹⁹³ This assumption relies on the fact that a ban on even the mere possession of child pornography would be a ban on the ownership of evidence of a criminal act, which is the sexual molestation of the child victim.¹⁹⁴ Child pornography, by the very nature of its origin, was therefore presumed to be a

185. U.S. Const. amend. I ("Congress shall make no law . . . abridging the freedom of speech, or of the press").

186. "Content-based" means discriminatory against either the message or the subject matter of the speech. *Turner Broad. Sys., Inc. v. F.C.C.*, 819 F. Supp. 32 (D.D.C. 1993). See also *infra* note 187.

187. *Turner Broad. Sys., Inc.*, 819 F. Supp. at 42. See also *Lighthawk v. Robertson*, 812 F. Supp. 1095 (W.D. Wash. 1993); *Calchera v. Procarione*, 805 F. Supp. 716 (E.D. Wis. 1992).

188. *Lighthawk*, 812 F. Supp. at 1098. For other cases which illustrate the Supreme Court's analysis, see also *supra* note 187.

189. *Id.*

190. *Id.*

191. *Sable Communications v. F.C.C.*, 492 U.S. 115, 126 (1989).

192. *New York v. Ferber*, 458 U.S. 747, 764 (1982). The government's interest was found to be overriding, and thus the government met its burden of strict scrutiny. *Id.*

193. *Id.*

194. See *supra* note 9 and *infra* notes 240-41.

permanent record of a child's sexual abuse.¹⁹⁵ However, with the technology to create virtual child pornography without the use of real child subjects becoming more readily available, it is not clear that an anti-virtual pornography¹⁹⁶ law will further the government's interest.¹⁹⁷

The Supreme Court considered the desire to protect the welfare of child subjects of pornography to be the overriding government interest in *Ferber*.¹⁹⁸ No direct child victim of computer-generated virtual pornography exists, because producers do not sexually exploit actual children when they create these pornographic materials.¹⁹⁹ Thus, if Johnson²⁰⁰ created pictures of imaginary children, there would be no direct victim. It is not logical to assume that a regulation on virtual child pornography, which uses only imaginary subjects, would withstand a constitutional attack under the First Amendment.²⁰¹ This is because the category of child pornography includes only that material which

195. In 1982, when *Ferber* was decided, personal computers were relatively new and not nearly as commonplace as they are today. Also, virtual child pornography was not an issue then, because the software for such manipulation of images was neither sophisticated nor readily available. For an analysis of how the *Ferber* Court might respond to virtual child pornography in 1997, see *infra* notes 197-202 and accompanying text.

196. For the definition of "virtual child pornography" that is used extensively in this note, see *supra* note 30.

197. In *Ferber*, the government sought to suppress real child pornography, material that was created only by sexually exploiting child victims, and thus the government's interest was advanced. *Ferber*, 458 U.S. at 764. Thus, the government may advance its interest by regulation the product of the sexual exploitation children, and in so doing the government's regulation would have a chilling effect on the child pornography industry and on further sexual exploitation of children for child pornography. *Id.* However, virtual child pornography does not use real children in its production. See *infra* part II.A. Thus, the government interest here is more nebulous. But assuming that the government interest is the same (namely, the protection of children from sexual exploitation), the relationship between this interest and a ban on virtual child pornography is more tenuous than the relationship between the government interest and a ban on real child pornography. But see *infra* part IV.C. for an analysis of the secondary effects argument against virtual child pornography.

198. *New York v. Ferber*, 458 U.S. 747, 764 (1982).

199. One could argue that although no child is sexually abused in the production of virtual child pornography, a specific child, or even all children as a class, is exploited when a child's innocent picture is transformed into a pornographic image. For a discussion of this issue, see *infra* part IV.C. and accompanying footnotes.

200. See *supra* part I.

201. Although the overriding government interest could be the protection of children from sexual exploitation, the government will have a greater difficulty in proving that a ban on virtual child pornography will further this interest without showing a clear connection between virtual child pornography and child sexual exploitation. *Landmark Communications, Inc. v. Virginia*, 435 U.S. 829, 845 (1978) (holding that a "clear and present danger" test must be met before speech can be regulated on the basis that it presents a danger to society). See generally *infra* note 276.

depicts real children below a certain age.²⁰²

The reality also exists that Johnson will find it easier to distort and manipulate pictures of actual children to create his pornography.²⁰³ In this case, an indirect victim is created: the child who may suffer emotional trauma at seeing her face on a pornographic image.²⁰⁴ The photograph has a strong psychological power in our culture.²⁰⁵ The notion that "the camera doesn't lie," while questionable in light of the new computer imaging technologies,²⁰⁶ still has a firm hold on many people.²⁰⁷ A child who is falsely depicted as the subject of virtual pornography would undoubtedly be shocked and humiliated if he or she discovered such an image.²⁰⁸ However, few would argue that

202. *Ferber* created a new category of unprotected speech, but this new category of child pornography is very narrow. *Ferber*, 458 U.S. at 764-65 (holding that child pornography includes only visual, pornographic works involving children). See also *infra* notes 240-41 for a brief historical perspective on child pornography in general.

203. Seemingly, it would be easier and faster for a pedophile to tear pictures out of a children's clothing catalog and simply scan them into his computer than it would be for him to "create" a completely new image on the computer. *Hearing*, *supra* note 32, at 878 (testimony of Chief Postal Inspector Jeffrey J. Dupilka stating that "[o]ften, we conduct searches in our investigations and we find photographs of children who are not involved in sexual activity, photographs taken by pedophiles for their own gratification With this new technology, pedophiles can now change these photographs and make the child a victim without ever having engaged in the activity." *Id.* But many people would agree that this is a less dangerous alternative than requiring the pedophile to actually molest the child in order to create pornography. See *infra* notes 208 and 228 for insight into the harms to children with regard to child pornography and child sexual abuse.

204. Bruce Taylor provided the following testimony before Congress:

Arguments that support the notion that since no child was actually sexually exploited in the production of the image, then the image should not be prosecuted are fallacious. This is because, first, it ignores the harm caused to a child who is depicted as having been sexually used . . . and, second, ignores the harm caused to society in general by the resulting pornography, i.e., the use of pornography in subsequent efforts to sexually molest children, and the sabotaging of child pornography prosecutions.

Hearing, *supra* note 32, at 895 (testimony of Bruce Taylor).

205. We live in a visual culture, as evidenced by the fact that more than 60% of our mental processing power is devoted to visual processing. Charles Grantham, *Visualization of Information Flows*, in *VIRTUAL REALITY: APPLICATIONS AND EXPLORATIONS* 219, 224 (1993).

206. See *supra* part II.A and accompanying footnotes.

207. See *supra* note 205.

208. Bruce Taylor testified that:

Using a child's head in an indecent composite image may cause extreme distress to the children being portrayed in this way, as well as their families. Children whose faces [have] been perfectly morphed into indecent images may suffer shame, humiliation, and even more extreme consequences as a result of the apparent child pornographic image.

Hearing, *supra* note 32, at 896 (testimony of Bruce Taylor). Children will have to be taught to question the veracity of a photograph, just as they might be instructed not to believe strangers who offer them rides. For a public policy based analysis of the need for a new paradigm with regard to photographs, see *infra* part IV.D. Shirley O'Brien has analyzed what emotive impact a child's viewing of his own manipulated image has upon him. O'Brien maintains that when a child sees his image used in pornography, the image: (1) arouses feelings with which the child is unable to cope

humiliation of this sort is equal to the pain and loss of innocence of actual sexual abuse. Until society manages to adapt to a new paradigm with regard to the reality of what is portrayed in photographs, the shock value of this sort of material will continue to exist.²⁰⁹

Although the U.S. Supreme Court has clearly recognized a state's overriding interest in preventing child sexual abuse,²¹⁰ it has recognized no such compelling interest in preventing this sort of emotional distress.²¹¹ The Court has been clear in its narrow definition of child pornography,²¹² and it is unlikely that a state's interest in preventing a potential mental harm will be enough to justify the expansion of that definition to include virtual child pornography of real children.²¹³ Libel laws, as well as other tort remedies, offer an alternative course of action for the child who has been depicted in a

because of the child's lack of experience; (2) degrades the child's self-image; (3) suggests that the child wanted to engage in the conduct and, therefore, is willing to participate in real sexual experiences; (4) makes the child vulnerable to sexual dependency; (5) inhibits the healthy sexual functioning in later life; (6) invades the child's privacy; and (7) distorts the child's sense of what is appropriate behavior. O'BRIEN, *supra* note 147, at xi-xii.

209. See generally *infra* part IV.D. The old adage of "believe half of what you see, and nothing of what you hear" will soon need to be evaluated as computer graphics programs become more sophisticated and more accessible to the average person. See REPORT, *supra* note 9, at 612-13.

210. New York v. Ferber, 458 U.S. 747 (1982).

211. For insight into the Supreme Court's views on emotional distress and its relation to First Amendment analysis, see *Hustler Magazine v. Falwell*, 485 U.S. 46 (1988). This case involved a tort claim by Jerry Falwell, the nationally known minister. *Id.* at 48. Falwell claimed that a parody in *Hustler* magazine caused him emotional distress. *Id.* at 48-49. The Court, per Chief Justice Rehnquist, held that public figures and officials who are offended by a parody could not recover for the tort of intentional infliction of emotional distress without a showing of malice. *Id.* Unlike public figures and officials such as Jerry Falwell, a child whose image is manipulated with a computer program is a private person, and that fact, coupled with the general heightened level of protection accorded to children under the law, should entitle these children to more privacy protection. But see *Ferber*, 458 U.S. at 764 (holding that the government has an interest in protecting children, but from sexual abuse, not humiliation). It is unclear whether a court would recognize a child's right to recover for emotional distress in this sort of situation. However, the Court has been clear that speech cannot be made illegal merely because that speech may upset people. See *Texas v. Johnson*, 491 U.S. 397 (1989) (holding that a state cannot proscribe the burning of the American flag). In *Johnson*, Texas asserted two governmental interests: preventing breaches of the peace, and preserving the flag as a symbol of national unity. *Id.* at 407. The Court, per Justice Brennan, held that flag-burning does not constitute "fighting words," so as to satisfy the first interest. *Id.* at 409. The second interest did not justify the regulation either because it was not advanced by the regulation. *Id.* at 410. Thus, because the First Amendment guarantees the fundamental right to free speech, that right is afforded great protection; therefore, free speech must be protected, even when someone's feelings are hurt. See also *infra* note 217 and accompanying text.

212. See *supra* note 63.

213. The government will have to show that the amendment to federal child pornography legislation directly advances the interest of protecting real children from sexual exploitation. See *supra* notes 197-201 and accompanying text.

pornographic episode in which she did not participate.²¹⁴ In recent years especially, defamation-type actions are handled in the civil courts, as the criminal court system is used decreasingly to discourage libelous and scandalous publications.²¹⁵ Although "real" child pornography must be handled by the appropriate law enforcement officers due to the crimes that occur in their production,²¹⁶ using the criminal system to regulate virtual child pornography on the sole basis that it causes offense or emotional harm is inappropriate, and contrary to the First Amendment.²¹⁷

The notion that one can manipulate a picture of another person and make it appear as though that person posed for pornography, or engaged in questionable sexual activity, is disturbing to many.²¹⁸ The unauthorized use

214. This would require the creation of a new form of libel action and would be based on the idea that manipulating a picture of someone so that the picture creates the appearance that he did something that he did not really do is equivalent to making a false statement about a person. *But see infra* notes 223-24 and accompanying text. Because people normally accept the veracity of photographs as they appear, civil courts probably will not view them as mere allegations that particular events occurred, at least not any time soon. But assuming that tort law grows with technological advances, aggrieved children should be able to recover under such a theory. *See infra* notes 220-24 and accompanying text. Protecting one's reputation against charges of sexual impropriety is a long-recognized value, and one author has noted: "There is little doubt that defamations can harm. Standing in the community is of economic value and . . . most people want to be well-regarded. Moreover, having bad things said about oneself is immediately upsetting." KENT GREENAWALT, *SPEECH, CRIME, THE USES OF LANGUAGE* 322 (1989). However, if manipulating someone's picture is treated like written defamation and pursued as a libel action, some parameters must be considered as well. *Id.* Greenwalt continued that "damaging remarks about individuals are within a principle of free speech and are a proper subject of First Amendment concern. . . . Some balance needs to be struck between expressive freedom and the need to protect feeling and reputation from unwarranted attacks." *Id.* at 323. *See also infra* note 223.

215. *See infra* note 220.

216. *See supra* note 9.

217. The Supreme Court has held that the fact that society may find speech offensive is not a sufficient reason for suppressing it. *Simon & Schuster, Inc. v. Members of N.Y. State Crime Victims Bd.*, 502 U.S. 105 (1991). The Court reasoned: "[I]f it is the speaker's opinion that gives offense, that consequence is a reason for according it constitutional protection." *Id.* at 118. *See also supra* note 211 and accompanying text.

218. The author recently conducted a survey of approximately 100 persons of various ages and educational backgrounds. The following questions were asked of each respondent:

- 1) Would you feel that your privacy had been invaded if, while you were out shopping, a stranger took a photograph of you without asking for your permission?
- 2) Would you favor a law that would prohibit anyone from taking a person's picture in a public place without getting the person's permission, regardless of how, if at all, that picture is later to be used?
- 3) Would you feel angry and/or violated if the stranger in Question 1 later used computer graphics software to manipulate the image of you, so that you appeared to be involved in offensive or explicit sexual conduct in the photograph?
- 4) Does your answer to Question 3 depend on whether the manipulated image would be distributed to a public forum (e.g., published in a magazine or on the Internet)?

of one's image appears to be an invasion of one's privacy. With computer graphics technology becoming more available and user-friendly every day, it does not seem too speculative that the computer manipulations of other people's pictures might become a new form of mischief, just as earlier generations maliciously told false stories about others, and wrote epithets and phone numbers on the bathroom walls.²¹⁹ However offensive this behavior might be, one would question whether our criminal justice system is equipped to handle such issues.²²⁰

Perhaps it is better to leave issues, such as privacy and defamation, to the civil courts. Doing this would allow the private individuals who have been offended by the manipulated pictures to seek their day in court civilly, rather than criminally.²²¹ Libel lawsuits can be decided on a case-by-case basis, in light of case law and the Constitution. Private litigants would therefore have control over their own cases, instead of relying on the government to pursue defamation-based causes of action for them.²²² However, defamation requires an audience for the offending material,²²³ so an individual would have no cause of action against a person who secretly manipulates that individual's image and does not publish the altered image in some manner.²²⁴

5) Would you support legislation that outlawed the computer-aided manipulation of another person's image without that person's consent?

6) Would you pursue a civil action (i.e., file a lawsuit) against the stranger in Question 1 if you found out that the person was manipulating your image with computer graphics software so that you appeared (in the picture) to be engaging in offensive or sexually explicit conduct?

Virtually every respondent answered "yes" to Questions 3 and 6. In addition, the majority of respondents answered "no" to Question 4. The remaining questions had varying responses. These results indicate that many people believe that their privacy is invaded and a "wrong" occurs when their image is manipulated, even when only in secret, and not when it is published. *See supra* notes 163-69 and accompanying text.

219. Of course, a person who vandalizes a bathroom wall can be punished for vandalism, but it is unlikely that he or she will be criminally charged with defamation. *See infra* note 220.

220. Criminal defamation statutes are not favorites with courts in many jurisdictions. State and federal district courts have held that even false and defamatory speech is protected by constitutional protection of free speech. *Nyer v. Munoz-Mendoza*, 430 N.E.2d 1214 (Mass. 1982); *Anderson v. Dean*, 354 F. Supp. 639 (D.C. Ga. 1973); *Konigsberg v. Time, Inc.*, 288 F. Supp. 989 (D.C.N.Y. 1968).

221. *See supra* note 214.

222. *See supra* note 214.

223. Defamation is an intentional false communication, either published or publicly spoken, that injures another's reputation or good name. BLACK'S LAW DICTIONARY 417 (6th ed. 1991) (emphasis added).

224. *Id.*

Criminal regulations on manipulating or distorting the images of others will have a chilling effect on a wide variety of constitutionally protected expression.²²⁵ Such regulations would therefore be equivalent to "burning the house to roast the pig."²²⁶ However, a more compelling reason for the Supreme Court to make a legal distinction between virtual child pornography and real child pornography is that the former does not fall within its own definition of child pornography, and it should, therefore, remain within the protection of the First Amendment.²²⁷ In order to better understand why virtual child pornography falls within the protection of the First Amendment, one must analyze the relevant case law, in particular, *Ferber*.

B. Applying *Ferber* to Virtual Child Pornography

Ferber was a long-overdue step in the right direction toward the protection of children, the silent minority, who have all too often been ignored and abused throughout the world, including in the United States.²²⁸ The case involved a

225. A blanket ban on the manipulation of the images of others, or on the subsequent publishing thereof, would serve as a disincentive to those businesses which provide "retouching" of pictures at the request of the picture's owner. Such bans would also prohibit constitutionally protected speech which would involve the manipulation of others' images without their consent, such as political satires and parodies. See generally *supra* note 100. In reference to the Child Pornography Prevention Act of 1996, Daniel Katz, legislative counsel for the American Civil Liberties Union, stated, "What they're going to do is sweep up a great deal of constitutionally protected activity." Schwartz, *supra* note 108, at A24. The law could lead to strange results such as allowing the prosecution of legitimate works, such as the film "Kids," in addition to causing a chilling effect on future productions based on works such as "Lolita." *Id.* Regarding prohibitions on pornography in general, Kent Greenwalt has argued the following:

However confident most of us may be that we can distinguish good literature from absolute junk, there is something troubling under a regime of free speech about the government's deciding that some literature and photographs are so bad *and* so powerfully attractive that they should actually be forbidden. Embarking on such a course would seem warranted only if one were deeply worried about the extended effect of viewing pornography instead of reading good literature.

The claim of justification would [be] . . . that the government should suppress pornography in order to reduce criminal violence, unhealthy sexual acts, and harmful attitudes.

GREENAWALT, *supra* note 214, at 151.

226. *F.C.C. v. Pacifica Found.*, 438 U.S. 726, 766 (1978) (Justices Brennan and Marshall refer to this analogy by Justice Stevens in their dissent).

227. See *infra* notes 239-52 and accompanying text.

228. Regrettably, child abuse and neglect are commonplace in the United States, despite the relatively high level of public awareness regarding children's rights, as compared to many countries. *New York v. Ferber*, 458 U.S. 747, 749 (1982) (calling the exploitative use of children "a serious national problem"). Child pornography undermines the very fabric of society because it preys on a culture's weakest member. John C. Scheller, Note, *PC Peep Show: Computers, Privacy, and Child Pornography*, 27 J. MARSHALL L. REV. 989, 1012-13 (1994). When children are used to make pornography, a child is sacrificed for the most perverse of reasons. *Id.* "The price of an

balance of the rights of the child subjects of child pornography and the free speech rights of pornographers.²²⁹ Because child subjects rarely have the power to look out for their own interests, the state's interest in protecting them is compelling.²³⁰ A child may not be able to resist an adult pornographer who directs the child to engage in sexual conduct so that the materials can be produced.²³¹ Unlike an adult, who chooses to earn a living by posing for pornographic pictures, a child very likely has little choice, and clearly no legal consent.²³²

Accordingly, in *Ferber*, child pornography was found to be without any sort of First Amendment protection.²³³ However, the category of speech that the Court created in *Ferber* is a deliberately narrow one, consisting only of "works that visually depict sexual conduct by children below a specified age."²³⁴ Virtual child pornography does not fall within this narrow definition,²³⁵ and it therefore cannot be assumed to be subject to the same regulations as child pornography.²³⁶ In virtual child pornography, no sexual conduct by children is occurring, as the images reflect either a completely imaginary child, or a real child, but one who has not engaged in any sexual conduct. Thus, the images are "virtual" as opposed to "real." The images only appear to represent real child pornography, but they are, in fact, different, practically and legally.²³⁷

adult's sexual satisfaction is a profound loss of innocence." *Id.* at 1013.

229. The child's rights prevailed. *New York v. Ferber*, 458 U.S. 747, 764-66 (1982).

230. In some circumstances, a level of governmental paternalism is necessary. Children, by the virtue of their age and inexperience, are usually not able to defend themselves from exploitation and abuse, and often their family structures offer no protection. The government therefore has a compelling interest in protecting children from sexual exploitation. *Ferber*, 458 U.S. at 764.

231. *Id.*

232. But see *supra* note 159, in which Catherine MacKinnon argues that adult women are similarly exploited through pornography.

233. *Ferber*, 458 U.S. at 764.

234. *Id.*

235. See *infra* notes 239-52 and accompanying text.

236. It is unlikely that the *Ferber* Court, and later the *Osborne* Court, considered the problem of computer-generated images that are virtually indistinguishable from depictions of real children. Johnson, *supra* note 32, at 326.

237. The "virtual" vs. "real" argument is explored in virtual reality texts. See *supra* note 160. Most people are able to distinguish between reality and fantasy in their everyday lives, but when the "virtual" becomes so lifelike that it almost passes for the real, it can be easy to assume that there is "virtually" no difference between the two. Computer-manipulated images are like virtual reality in that they confuse the senses, even to the point where the viewer believes that what she is seeing is in fact a "real" representation of an event that has actually occurred. *Id.* However, it does not logically follow that, just because the senses are confused, the "virtualness" can be ignored. See *supra* notes 159, 172.

Child pornography is an extremely narrow category of unprotected speech, which only includes visual depictions of sexual performances by children.²³⁸ It does not include written accounts of such sexual performances;²³⁹ nor does it include sculptures, paintings, or drawings, no matter how skillfully rendered.²⁴⁰ Virtual child pornography is like a drawing or painting in some regards, as it is a two-dimensional visual creation of a fictitious account of a sexual performance involving a child.²⁴¹ However, the problem lies with the realism of virtual pornography in contrast to the average painting, which is easily seen as a non-real account.²⁴² People assume that pictures portray real events, and therefore, a skillfully manipulated photograph is easily mistaken as an account of a real event.²⁴³ This level of realism in virtual pornography could be a deadly obstacle for law enforcement officers, who would not be sure if a suspected pornographer's collection was produced using real children or not.²⁴⁴ Federal law has dealt with this problem by assuming that, if the

238. See *infra* note 239.

239. "[T]he distribution of descriptions or other depictions of sexual conduct, not otherwise obscene, which do not involve live performance or photographic or other visual reproduction of live performances, retains First Amendment protection." *New York v. Ferber*, 458 U.S. 747, 764-65 (1982).

240. It has been noted that:

Drawings of children engaged in sexual intercourse with adults date back at least from ancient Greece, and a graphic written description of child sexual abuse was to be found in seventeenth century France. Yet although these portrayals or accounts might be deemed "obscene"; and although they deeply offend modern sensibilities regarding the rearing and protection of children they are not "child pornography" in the specific legal and clinical sense that term has acquired It is clear from the [*Ferber*] Court's language, and in all statutory and scholarly definitions of the term, that 'child pornography' is only appropriate as a description of material depicting real children."

REPORT, *supra* note 9, at 596-97. The Report continues: "[A] rewrite of *LOLITA* which included graphic descriptions of sexual activity with a young girl could never be 'child pornography', nor could a fully explicit film of the novel which starred an adult actress playing the part of the young girl." *Id.* at 598.

241. In contrast to real child pornography, which requires a real child to be engaged in sexual conduct while the producer records the acts in some sort of visual medium, virtual child pornography requires only the imagination and computer skills of the producer. See *supra* notes 32-42 and accompanying text. See SCHELLER, *supra* note 228, at 999 (stating that "[t]he 'person' [depicted in virtual child pornography] . . . is created by the computer, and does not actually exist"). The images therefore do not exploit actual children. *Id.*

242. It is hard to imagine a person in our time period taking a painting of a person riding a horse, as irrefutable proof that the person did in fact ride a horse. Yet many people would assume a photograph to provide that exact level of proof, even while knowing that such photographs can be altered, manipulated, etc. See *supra* part III and accompanying footnotes.

243. See *supra* note 40 and accompanying text. But see *infra* note 244.

244. *Hearing*, *supra* note 32, at 894 (statement by Bruce Taylor arguing that "[f]urthermore, if it is not obvious that the image is a composite the child and its family may have to be investigated to discover whether or not abuse of the child had actually occurred.") It is frightening to imagine that the issue of whether a child was sexually abused or not would not be of paramount concern to law enforcement officers, if they find a child's picture among those in a pedophile's collection. One

pornographic material appears to be child pornography, then it is child pornography.²⁴⁵ However, this over-simplified solution does not pass constitutional muster because it expands the narrow category of unprotected speech created in *Ferber* to cover materials which are substantially different from those proscribed in that case.²⁴⁶

In making its ruling, the *Ferber* court considered the various harms of child pornography which justified barring it from any First Amendment protection.²⁴⁷ Importantly, it did not rely on any paternalistic state interest in protecting society, or individuals, from using or being exposed to child pornography.²⁴⁸ The harms that it did consider include the physiological, emotional and mental health problems that sexually exploited children experience.²⁴⁹ In addition, when *Ferber* was decided, pornographic materials were a permanent record of a crime: the sexual abuse of the child.²⁵⁰

could question whether the opportunity to avoid such investigative work is really the sort of government interest that the Supreme Court might acknowledge.

245. Child Pornography Prevention Act of 1996, 18 U.S.C. § 2252 (1994). See *supra* notes 96-98.

246. If the Supreme Court deems virtual child pornography to be different from real child pornography, then the *Ferber* analysis would not control, and the government would have to meet the strict scrutiny test in order for the federal amendment to withstand First Amendment attack. See *supra* notes 186-91 and accompanying text. Thus, the government would have to show that its interest, the protection of children from sexual exploitation, is directly advanced by a ban on computer-manipulated images which do not involve the sexual abuse of real children. *Id.* For reasons explored throughout this note, it is unlikely that the government would be able to meet this test.

247. *New York v. Ferber*, 458 U.S. 747 (1982).

248. *Ferber*, 458 U.S. at 757. The prevention of the sexual exploitation and abuse of children was the primary governmental interest. *Id.*

249. Catherine A. MacKinnon argues that women who pose for pornography experience similar emotional harm as a result of the depersonalizing nature of the industry. She maintains that "[s]omething is done when women are used to make pornography, and then something is done again and again to those same women whenever their violation—their body, face, name, whatever of identity and dignity can be stolen and sold as sex—is sexually enjoyed, in whatever medium." MacKinnon, *supra* note 159, at 1960-61. Child subjects of pornography are also seen as sexual objects, existing in a photograph for the sexual gratification of a pedophile. See *supra* note 228. MacKinnon elaborates: "If the materials were non-sexual libel, or the persons involved were understood to be persons rather than prostitutes or sex or 'some women' who are 'like that,' the damage done would be clear." MacKinnon, *supra* note 159, at 1960-61.

250. Senator Biden argued the following regarding child pornography and abuse:

The pornographer involves children in conduct they should not have any part in and then creates a record of that abuse, which in many cases he shares with others, and in many cases ruins forever the life of the child involved. The abuse of the children involved does not end when their participation in making pornography ends; it continues as long as the record of the material exists and . . . as long as their memory persists.

Hearing, supra note 32, at 873 (testimony of Senator Biden). See also Scheller, *supra* note 228, at 1013.

Clearly, the Supreme Court acknowledged the state's interest in preventing these harms.²⁵¹ But in virtual child pornography, no sexual exploitation of children is present. No sexual crime against the child exists to record.²⁵² With the exception of the possible emotional harm to a depicted child as mentioned above,²⁵³ no direct harm results in producing virtual child pornography.²⁵⁴ Although insistent arguments are made based on the alleged secondary effects of pornography on particular classes of people,²⁵⁵ the Supreme Court did not give weight to these speculative considerations when making its ruling on child pornography.²⁵⁶ Therefore, it would seem that, under *Ferber*, the government does not have the same overriding interest in prohibiting the production of pornographic images which do not require the abuse of real children.²⁵⁷ Merely assuming that virtual child pornography can

251. New York's interest was overriding. *New York v. Ferber*, 458 U.S. 747, 757 (1982).

252. Although the Attorney General's Report on child pornography did not consider virtual child pornography, its emphasis of the particular characteristics of child pornography help in analyzing whether the computer-manipulated images are child pornography. REPORT, *supra* note 9, at 406 ("The inevitably permanent record of that sexual activity created by a photograph is rather plainly a harm to the children photographed. But even if the photograph were never again seen, the very activity involved in creating the photograph is itself an act of sexual exploitation of children . . ."). Thus, the Attorney General emphasized the fact that traditional child pornography is a permanent record of a crime, and not a mere pornographic picture. *Id.* See also Marci A. Hamilton et al., Panel Discussion, *Regulating the Internet: Should Pornography Get a Free Ride on the Information Superhighway?*, 14 CARDOZO ARTS & ENT. L.J. 343, 351 (1996) ("[T]he only reason child pornography laws have withstood constitutional scrutiny is because they have been prohibitions on conduct rather than content."). See also *supra* note 9 and accompanying text. Finally, Postal Chief Dupilka testified before the Senate Judiciary Committee: "Child pornography is not an art form. It is documented evidence of sexual molestation and abuse in the continuing victimization of children." *Hearing, supra* note 32, at 878 (testimony of Jeffrey J. Dupilka).

253. For an analysis of the role of this consideration in a potential judicial evaluation of the legality of computer-generated child pornography, see *supra* notes 208-28 and accompanying text.

254. But see Johnson, *supra* note 32, at 327 for the argument against this conclusion. Johnson maintains that "[t]here are reasons why the possession of such images, even though not directly exploiting children in their creation, should be constitutionally prohibited. Because of the quality of computer-generated images, the gravity of the harm in possessing such images is so great as to override the individual's interests in possession." *Id.* Under this argument, virtual child pornography can be legally distinguished from a mere drawing or painting, because its realism is so extreme that it appears to be an actual record of real children engaging in sexual performance. But see *supra* notes 240-41. See also Hamilton, *supra* note 252, at 361 ("I will be surprised if the Supreme Court . . . fails to recognize some level of protection for children as a class against vivid wholesale depictions of acts that would be harmful if they involved a specific flesh and blood child instead of a digitized image.").

255. For a more detailed analysis of the secondary effects argument against pornography, see Section IV.C. and accompanying footnotes.

256. *New York v. Ferber*, 458 U.S. 747 (1982). See also *Osborne v. Ohio*, 495 U.S. 103 (1990).

257. *Ferber*, 458 U.S. at 764 ("[T]he nature of the harm to be combated requires that the state offense be limited to works that visually depict sexual conduct by children below a specified age").

be prohibited under *Ferber* is not consistent with the Court's reasoning.²⁵⁸ A law based on such an assumption, in addition to being unduly presumptive,²⁵⁹ would therefore be unconstitutional.

The Supreme Court should hold that virtual child pornography may not be constitutionally proscribed on its face, due to the material's substantive differences from real child pornography.²⁶⁰ However, this issue clearly cannot be ignored, due to the potential problems that the new technology presents to law enforcement officers.²⁶¹ The federal child pornography statute needs an effective, but reasonable, amendment in order to allow prosecutors to enforce

258. It would appear that a separate compelling government interest needs to be established, because virtual child pornography is not identical to those materials which the Supreme Court held can be illegal *per se*. See *supra* notes 9, 240-41 and accompanying text. Child pornography is produced using a real child who is sexually abused, and virtual child pornography does not involve the sexual exploitation of children. See *supra* notes 9, 240-41 and accompanying text. For a background on how virtual child pornography is created, in contrast to real child pornography, see also part II.A. One commentator emphasizes the need for proof of harm that the virtual pornography causes before it can be prohibited:

Some have questioned the legality of computer-generated images of children in sexual poses or of morphed images of adults rendered to appear childlike on the computer screen. I believe that to establish that such images are illegal, it is necessary to show beyond question that the viewing of these images of children . . . is dangerous to the welfare of children.

Branscomb, *supra* note 145, at 1946.

259. To say that something imaginary is real, for the purposes of a law, appears to be a clumsy sort of legal doublethink. See *supra* note 172. We may criminalize the possession of a substance which looks like cocaine to support the policies behind the anti-drug laws and to promote the efficiency of law enforcement officers. See, e.g., Ill. Rev. Stat. ch. 720 § 570/404(b-d) (1996) ("It is unlawful for any person knowingly to possess a look-alike substance. Any person who violates this subsection (c) is guilty of a petty offense. . . . In any prosecution brought under this Section, it is not a defense . . . that the defendant believed the look-alike substance actually to be a controlled substance"). But we would never try to fool ourselves into believing that it truly does not matter whether a suspect is selling cocaine, or baking powder, to his customers. For example, Illinois' law provides a minor penalty for possession of a look-alike controlled substance, compared to the typical felony penalties facing those who possess real controlled substances. *Id.* at § 570/404(c). Apparently some state courts do not subscribe to the doublethink that laces the Child Pornography Prevention Act, at least not with regard to child pornography. See *supra* notes 96-98, 172 and accompanying text. And more interestingly, while a criminal who sells baking powder, believing it to be cocaine, has the same *mens rea* as a more competent drug dealer, the law would never punish a chef because he keeps baking powder in his refrigerator. Such a result would be nonsensical, yet many would advocate treating computer-manipulated pictures, which appear to be child pornography, as illegal *per se*, requiring no proof of either a defendant's desire to harm children or his suspicion that the pictures were produced using real children. See *supra* notes 96-98, 172 and accompanying text.

260. See *supra* note 258 and accompanying text.

261. Virtual child pornography, due to its resemblance to real child pornography, may make enforcement of existing child pornography laws difficult. See *supra* notes 42, 203. For a proposed alternative, see *infra* next section.

the current regulations against child pornography.²⁶² But an amendment to the current legislation must conform to the First Amendment.

A legal analysis of the issue of virtual child pornography is not complete merely by applying past case law to the legal issues presented by the new computer technology. It is also important to realize that the Supreme Court may consider other factors in making a ruling on the constitutionality of the new federal amendment to the child pornography statute. These factors may include the secondary effects argument, as well as issues of public policy.

C. The Secondary Effects Argument

Another factor to be considered in the issue of virtual child pornography is the secondary effects argument. Proponents of this argument maintain that any sort of pornography, especially that which involves images of children, is so lacking of any value and harmful *per se* to society that it can and should be proscribed. Supporters of this position claim that the government has several valid interests in protecting society from the possible indirect effects of child pornography.²⁶³

1. Prevention of Seduction of Children as a Governmental Interest

One of the indirect effects of child pornography is that the materials may be used to aid in the seduction of real children.²⁶⁴ The argument for suppression of virtual child pornography on this ground does not claim that the material is child pornography under the traditional constitutional analysis.²⁶⁵ Rather, this argument maintains that the material should be regulated because of its potential to be used for illegal purposes.²⁶⁶ The Supreme Court, however,

262. See *infra* part V.

263. Many opponents of adult pornography also argue that the secondary effects of such materials is sufficient to justify bans on pornography. "The state's interest in eliminating child pornography is the protection of *all* children." Scheller, *supra* note 228, at 1000 (emphasis added). Scheller notes that child pornography necessarily includes child abuse. *Id.* (citing in part REPORT, *supra* note 9, at 406).

264. REPORT, *supra* note 9, at 649. See also *supra* notes 152-56 and accompanying text.

265. The argument in favor of suppression of virtual child pornography on this ground is based on the effects of the material on others. Scheller, *supra* note 228, at 996 n.46 ("One argument is that pornography is a social evil and is debilitating to human sexuality").

266. This argument is consistent with state laws that prohibit the possession of burglary tools, theft-shielding devices, "boxes" which are used in the theft of telephone services, and other such contraband which, while harmless on its own, is used primarily for illegal purposes. *E.g.*, ALASKA STAT. § 11.46.315 (1995) (proscribing the possession of burglary tools); ALA. CODE § 13A-7-8 (1996) (same); 720 ILL. REV. STAT. § 5/16-15 (1996) (proscribing the possession of theft-shielding devices); CAL. PENAL CODE § 502.7(a)(5) (West 1997) (proscribing the possession of devices that are used to make telephone calls without paying for them); MICH. STAT. ANN. § 28.808(3) (Law.

did not allow a complete ban on child pornography on the ground that it is a seductive tool, even though it knew that the material could be used for seductive purposes at the time.²⁶⁷ The U.S. Attorney General acknowledged the danger of child pornography being used for this purpose,²⁶⁸ but also noted that adult pornography is used for the same purpose,²⁶⁹ and would therefore not recommend restrictions on child pornography based solely on its seductive qualities.²⁷⁰

Although virtual child pornography may possess an even greater potential to seduce children, it still does not involve the sexual exploitation of actual children in its production.²⁷¹ Thus, the compelling governmental interest in shielding children from such exploitation is not present.²⁷² It is doubtful that the governmental interest in preventing the vaguely speculated use of virtual child pornography in the seduction of children would justify a ban on virtual

Co-op. 1996) (same). But in addition to having potentially legal purposes, such as personal sexual stimulation, virtual child pornography would appear to be a form of speech. *New York v. Ferber*, 458 U.S. 747 (1982). The Supreme Court here held that the government had a compelling interest, and that it was therefore able to proscribe real child pornography. Child pornography was therefore deemed to be speech, but it was not afforded First Amendment protection. *Id.* Therefore, assuming that the images do not violate the local or state obscenity standards, they would appear to be entitled to First Amendment protection. *Id.* at 764. *See supra* note 257.

267. *See supra* note 121.

268. *New York v. Ferber*, 458 U.S. 747 (1982).

269. *See* REPORT, *supra* note 9, at 411 n.74:

We note that there seems to be significant use of adult sexually explicit material for the same purpose. Child molesters will frequently show sexually explicit pictures of adults to children for the purpose of convincing a child that certain practices are perfectly acceptable because adults engage in them with some frequency. . . .

Id. *See also* Hamilton, *supra* note 254, at 352 (“[S]ometimes children can be seduced by nothing more dangerous than a suggestion that ‘we meet at the corner for an ice cream cone’ or ‘just to talk’”). *Id.*

270. REPORT, *supra* note 9, at 411 n.74. The Attorney General’s Report acknowledged the practice of seducing children through use of child pornography, but did not “take the phenomenon as sufficient to justify restrictions [it] would not otherwise endorse.” *Id.* Instead of regulations, education was seen to be the key to protecting children against this sort of tactic. *Id.* (“[W]e strongly urge that children be warned about the practice in the course of whatever warnings about sexual advances by adults are being employed”). The child seduction issue was a small factor in the Report’s treatment of the entire child pornography issue. Adelman, *supra* note 19, at 491. Although the use of child pornography for seductive purposes should not be ignored or trivialized, the issue must not be allowed to draw legislators’ attention away from constitutional practicalities. *See generally supra* parts IV.A and IV.B.

271. Real children are not sexually abused in order to create virtual child pornography. *See supra* part II.A and accompanying footnotes. Virtual child pornography, like a fictional story or drawing, is an imaginative simulation of an event that did not occur. *See supra* note 240. Thus, it is fantasy, as opposed to real child pornography, which does record a sexual crime scene. *Id.* *See also supra* note 9.

272. The issue of whether a secondary effects argument would be valid is explored later in this note. *See infra* notes 276-301 and accompanying text.

child pornography.²⁷³ In order to restrict virtual child pornography on this ground, the government interest would have to meet a proximity test²⁷⁴ in which the threat of the use of the material for seductive purposes would have to be shown to be real and imminent, and not mere speculation.²⁷⁵ Before speech can be prohibited, the danger must not be remote, or even probable—it must cause immediate peril.²⁷⁶

Virtual child pornography does not require the sexual exploitation of a real child in its production, and this factor makes the images substantially different from real child pornography.²⁷⁷ If the mere possession of virtual child pornography cannot be proscribed constitutionally,²⁷⁸ other regulatory tactics would have to be implemented to prevent the illegal use of the images.²⁷⁹ A pedophile could be found with what is clearly virtual child pornography²⁸⁰ and, under the amended federal statute proposed in this Note, could manage to exonerate himself or herself from a child pornography-related prosecution.²⁸¹ However, the pedophile could still be charged with attempted sexual assault if

273. Adelman, *supra* note 19, at 491 (“[T]here is strong argument that the Final Report stands for precisely the opposite result of the conclusion for which the advocates of the suppression of computer-generated child pornography have cited it. It may well be that a similar Commission meeting in 1996 would conclude that the suppression of computer-generated images is necessary, but that result cannot be presumed.”).

274. *See infra* note 276.

275. *See infra* note 276.

276. *Landmark Communications, Inc. v. Virginia*, 435 U.S. 829, 843 (1978). The Supreme Court established parameters for a proximity test which needs to be met before speech can be regulated on the basis that the speech presents a danger to society. The “clear and present danger” test requires an actual, threatened public interest, which is not doubtful or remote. *Thomas v. Collins*, 323 U.S. 516, 530 (1945). If this test is met, a limitation on speech is justified. *Dennis v. United States*, 71 S. Ct. 857 (1951). Under this test, a court must inquire in each “case whether the gravity of the ‘evil,’ discounted by its improbability, justifies such invasion of free speech as is necessary to avoid the danger.” *Id.* at 510. The Supreme Court has also noted that the clear and present danger exception to the First Amendment may not be used indiscriminately. *Feiner v. New York*, 340 U.S. 315, 320-21 (1951) (holding that although the state has the power to prevent or punish when there is a clear and present danger of an immediate threat to public safety, peace, or order, it may not unduly suppress free speech under the guise of conserving desirable conditions).

277. *See supra* notes 9, 252. *See also New York v. Ferber*, 458 U.S. 747, 764 (1982).

278. Even if the material in question (virtual child pornography) were found to be obscene, the Supreme Court has held that a state cannot proscribe the private possession of obscene materials in one’s own home. *Stanley v. Georgia*, 394 U.S. 557, 565 (1969).

279. Illegal uses of the images would include using the images to seduce children for the purpose of sexual abuse. *REPORT, supra* note 9, at 649. *See also infra* note 283.

280. The fact that the material is virtual child pornography, and not real child pornography, would be determined by the defendant’s ability to sufficiently prove that the material was created without any sexual abuse of real children. For the details of the proposed amendment to the federal child pornography statute, see generally *infra* part V.

281. *See infra* part V.

he or she tries to use the material to seduce a child.²⁸² Nevertheless, to attempt to regulate virtual child pornography on the basis that it may be used for illegal purposes, when its possession cannot be regulated otherwise, is overly broad.²⁸³ To succeed, a regulation would have to be narrow; a state could prohibit the possession of virtual child pornography while on school grounds, or in parks, or in other areas where young children could be solicited.²⁸⁴ But, it could not ban the possession of virtual child pornography in one's home, just as it cannot prohibit such private possession of obscenity.²⁸⁵ Just as a state cannot criminalize the publication of a rape victim's name based on the possibility that the information might be used to further illegal actions,²⁸⁶ it cannot prohibit virtual child pornography based on the possibility that the material might be improperly used.²⁸⁷

2. Virtual Child Pornography as an Incitement to Sexual Crimes

Another alleged secondary effect of child pornography is that it causes susceptible persons to sexually molest children.²⁸⁸ Under this theory, the state must not only protect the child subjects of the pornography itself, but also those children who may be sexually abused by a pedophile who is somehow spurred to action by viewing child pornography.²⁸⁹ Opponents see this interest as

282. See *supra* note 279. See also *infra* note 283.

283. A distinction needs to be maintained between fantasy and action. See Symposium, *supra* note 65, at 316. Dave Browde has said the following:

[S]omeone attacking children is one thing, but discussing it is another. I wonder whether we might be tempted to go too far because of the perception that there is a greater threat imposed by this new technology which is going to make pedophilia easier. But it doesn't really make pedophilia easier. Someone still has to commit a crime, and it is at that point that I suspect law enforcement will still be effective and will still be able to act.

Id.

284. But see *Stanley v. Georgia*, 394 U.S. 557 (1969). The Supreme Court has been suspicious of paternalistic governmental interests in protecting the minds of adults. *Id.* at 566.

285. *Id.* at 568.

286. *Florida Star v. B.J.F.*, 491 U.S. 524 (1989).

287. A proximity and degree test would be required. *Schenck v. United States*, 249 U.S. 47, 52 (1919). See also *supra* note 276. Although the degree of harm here is substantial (the sexual abuse of a child), there is little connection between a pornographic image and sexual seduction. Hamilton, *supra* note 252, at 352 (stating that a child may be seduced by the suggestion that he or she meet with the pedophile for ice cream).

288. Johnson, *supra* note 32, at 327-28. See also notes 297-316 and accompanying text.

289. Scheller, *supra* note 228, at 1000. Scheller claims that the abuse that occurs in the production of child pornography does not end with the depiction of the child because pedophiles use child pornography to aid in the sexual abuse of children. *Id.* According to this line of thinking, the producer of child pornography in general, not the sexual pervert who views it and then goes on to molest a child, is to blame for the child's sexual abuse. It is, therefore, the pornography itself that is evil for its power over its viewers. This theory is forward-looking and speculative: the sexual abuse which occurred in the production of the pornography is not the root of its evil, but rather, the

overly-paternalistic and maintain that the government is not responsible for controlling the thoughts of its citizens.²⁹⁰

The Supreme Court has been reluctant to consider the government's interest in protecting minds from offense, distress, or indirect influence as a result of viewing child pornography.²⁹¹ In its rulings on child pornography, the Court has considered only the state's interest in protecting the child subjects of the pornography from sexual exploitation.²⁹² The Court has specifically ruled that "[w]hatever the power of the state to control public dissemination of ideas inimical to the public morality, it cannot constitutionally premise legislation on the desirability of controlling a person's private thoughts."²⁹³ It is unlikely that the Court will change its position on how far government can go in regulating private, albeit unpopular or frightening,²⁹⁴ media, because the Court

danger lies in how its viewers may react to it. Scheller continues by stating that: [T]he act of child pornography is not an end in itself. Rather it sets the foundation for acts more vile. Photography, film and computers attempt to capture a perfect and true picture of reality. These media are forever inferior to the behavior and images they depict. Consequently, child prostitution, abduction, and even murder can result from the unsatiated appetite of the voyeur.

Id. at 1013.

290. Schwartz, *supra* note 108, at A24; GREENAWALT, *supra* note 214, at 151. Whether pornography causes sexual abuse is the subject of much debate. RICHARD F. HIXSON, PORNOGRAPHY AND THE JUSTICES 5 (1996) ("[T]here is not much support for the fear that exposure [to pornography] leads to new or higher levels of sexual activity or to changes in an individual's established sexual behavior."). President Carter's Commission concluded that there is no evidence that exposure to explicit sexual materials causes delinquent or criminal behavior. *Id.* In fact, some argue that pornography is less arousing than one's own imagination. *Id.* at 5-6. Although anti-pornography activists argue that adult pornography leads to increased sexual attacks on women, many scholars feel differently. For example, Ellen Willis, a leading feminist in New York City, stated, "[I]f *Hustler* were to vanish from the shelves tomorrow, I doubt that rape or wife-beating statistics would decline." *Id.* at 210. "Feminists against pornography have done a sad and awful thing," another scholar claims, "they have made women into objects." *Id.* at 209 (quoting Sallie Tisdale).

291. The leading case on the secondary effects argument against child pornography is *Osborne*. *Osborne v. Ohio*, 495 U.S. 103 (1990). *Osborne* followed *Ferber* and held that the private possession of child pornography in one's home can be proscribed. *Id.* at 111. The Court distinguished this case from *Stanley* (in which the individual's right to privately possess obscene materials in his own home was acknowledged), by emphasizing the unique harm to children who are involved with the production of child pornography, and the state's overriding interest in preventing the production of such material. *Id.* at 110. *Osborne* also noted that the state did not rely on a paternalistic interest in protecting the defendant's mind. *Id.* at 109.

292. *Id.*

293. *Stanley v. Georgia*, 394 U.S. 557, 566 (1969).

294. Recently, the Court ruled that the mere fact that a particular message or form of speech might be offensive to some does not deprive it of its First Amendment protection. *Texas v. Johnson*, 491 U.S. 397, 408-09 (1989). Indeed, if the First Amendment only applied to popular speech, we might not need it, much as other amendments would be useless if they only applied to the favored, majority classes. See also *supra* note 211.

has acknowledged, in a case with many parallels, that individuals have a right to view obscenity in their own homes.²⁹⁵ The secondary effects argument has surfaced not only with regard to child pornography, but also with adult pornography, violence on television, and the lyrics of rap and heavy metal musicians.²⁹⁶ The premise of the argument is that some forms of speech present a clear, but not always imminent, and certainly not direct, danger of causing people to act criminally.²⁹⁷ Such forms of speech should be suppressed, therefore, due to their lack of social value, much like fighting words and libel are treated now.²⁹⁸ Under this theory, a violent television show could be suppressed because it may influence someone to later commit a violent act.²⁹⁹

295. *Stanley*, 394 U.S. at 566. As the secondary effects of pornography have not been acknowledged by the Court, and discredited to some degree in *Stanley* and *Osborne*, it does not seem likely that the Court will now change its mind and hold that the private possession of virtual child pornography can be proscribed. Of course, the state's power to regulate the distribution of virtual child pornography, if it is obscene, is another matter. *But see GREENAWALT, supra* note 214, at 151.

296. Tony Mauro, 'Can't Hold Media Liable,' but Litigants Still Trying, *USA TODAY*, Oct. 21, 1993, at 2A; Eric Johnson, Regional News, *Study Links Suicide, Heavy Metal*, U.P.I., Apr. 5, 1994 (acknowledging a study based on the circulation of a heavy metal magazine and the suicide rates of persons aged 15-24); Kurt Sevick, *Searching for Blame? Parents Should Find a Mirror*, ST. PETERSBURG TIMES, Mar. 16, 1994, at 2. *See also* Walt Disney Prods. v. Shannon, 276 S.E.2d 580 (Ga. 1981) (holding that a television studio was not responsible for a child's death when the child attempted to imitate a stunt performed on *The Tonight Show*). *See* Vitauts M. Gulbis, Annotation, *Liability for Personal Injury or Death Allegedly Resulting from Television or Radio Broadcast*, 20 A.L.R. 4th 327 (1983).

297. *See* Johnson, *supra* note 32, at 327-28 ("[P]rohibiting the possession of computer-generated child pornography will prevent sex crimes on children."). *But see* Dershowitz, *supra* note 19, at B7. Clearly, the question of what effect pornography has on the viewer is still unresolved. *See supra* notes 289-90 and accompanying text. *See also* CREWDSON, *supra* note 61, at 245. "[A] commission appointed by President Nixon concluded that pornography had no significant effect on the viewer." *Id.* at 246. These conclusions were backed up by scientific research, but President Reagan appointed a new commission which concluded that viewing some forms of violent pornography contributes to violent behavior. *Id.* This commission used no quantitative research of its own, but instead relied on the testimony of experts who were involved with law enforcement. A few social scientists testified that viewing pornography had no perceptible effect on sexual behavior, but the commission ignored them. *Id.* Judith Becker of the New York Psychiatric Institute was quoted as saying, "I've been working with sex offenders for eleven years and I would think that if there were a link between pornography and sexual behavior, we would have found it before now." *Id.* *See also* Adelman, *supra* note 19, at 491 ("[Federal legislation] will criminalize the activity of many computer users who will never engage in acts of sexual abuse.").

298. *See supra* notes 48-50, 211-24 and accompanying text.

299. *See supra* note 296. The basis for the secondary effect argument is illustrated in the following quote by David Holbrook:

[F]or any action to be taken against [pornography], we must show that it has socially harmful results, by showing that some actual obscene work has an effect which is demonstrable in the behaviour of a certain person, and those acts which follow must actually be anti-social or debasing to that person.

While it is naive to maintain that violent song lyrics and pornography do not influence listeners and viewers,³⁰⁰ without a clear causal link between the expression and the violent behavior of the listeners and viewers, the regulation of the unpopular speech falls outside of the government's domain.³⁰¹ The government is not designed to act as "Big Brother," protecting its citizens from their own thought crimes.³⁰² Our criminal justice system is designed to punish those who act on criminal urges, not those who have fantasies but do nothing to act them out, or those who simply encourage such fantasies.³⁰³

DAVID HOLBROOK, *THE CASE AGAINST PORNOGRAPHY* 5 (1973). In the case of virtual child pornography, the possession and viewing of the images must be found to contribute to sexual crimes against real children. See *infra* notes 301-03.

300. If there was no psychological influence at all, the materials (music and magazines) would probably not be in such high demand, as the use of them would be pointless. However, it is not clear whether the use of violent and pornographic media creates criminal minds, or merely provides a safe outlet for existing anti-social thoughts. See *supra* notes 289-97.

301. A clear link between pornography and sexual abuse has not yet been established. See *supra* notes 289-97. If sufficient proof could be established that the dissemination of virtual child pornography will lead to additional acts of sexual abuse, strict regulations on the fabricated images could be justified, yet no evidence has been established. Adelman, *supra* note 19, at 488-89 (citing to *Turner Broad. Sys., Inc. v. F.C.C.*, 114 S. Ct. 2445, 2470 (1994)). Adelman notes that a government's regulation of speech, as a means to prevent anticipated harm, must be proved to be capable of actually advancing the state's compelling interest in stopping the harm. *Id.* No evidence is available that supports the proposition that proscribing even real child pornography leads to fewer acts of sexual abuse of children. See CREWDSON, *supra* note 61, at 246 ("[W]hile graphic pornography featuring children first became commercially available . . . there appears to be nothing new about sex crimes against children. Nor does there seem to be a connection in other cultures where such pornography has been even more widely available."). James Fallows, a former speechwriter for Jimmy Carter, who recently moved his family to Japan, demonstrated the implausibility of the secondary effects argument when he noted that although more and more people in the United States are claiming that pornography contributes to sexual crimes, Japan has a high level of violent stimulation, but a low incidence of reported rapes and assaults. *Id.*

302. In his classic novel, George Orwell has depicted what life would be like when a totalitarian government controls every aspect of its population, and mere anti-government sentiment, without action, was punishable. He wrote:

Thoughts and actions which, when detected, mean certain death are not formally forbidden, and the endless purges, arrests, tortures, imprisonments, and vaporizations are not inflicted as punishment for crimes which have actually been committed, but are merely the wiping-out of persons who might perhaps commit a crime at some time in the future.

ORWELL, *supra* note 172, at 212.

303. The actus reus, or "guilty act," has always been an essential element in establishing culpability in the criminal law. BLACK'S LAW DICTIONARY 23 (6th ed. 1991). See also *supra* note 93 regarding mens rea, or "guilty mind." Fantasizing about a crime is never enough. See *infra* note 307. Creating real child pornography requires the guilty act of molesting a real child, but virtual child pornography does not. See *supra* note 9. Dee Jepsen, president of Enough is Enough, stated in her testimony before the Senate that virtual child pornography is not a harmless activity because "fishermen read fishing magazines . . . and generally go fishing. It is only logical that those who view child pornography wish to act out that which they have viewed." *Hearing, supra* note 32, at 989 (testimony of Dee Jepsen). Under this approach, our hypothetical Jones would not

The question of when a fantasy is dangerous enough, if ever, to allow the government to intervene and regulate the speech involved is not an easy one to answer.³⁰⁴ An interesting recent federal case involved a University of Michigan student who wrote violent pornographic stories about a classmate, using her real name and physical description and then posted them on

exist, since he merely enjoys looking at child pornography, but has never molested a child. See *supra* part I. Jepsen's logic is flawed, because it ignores the difference between fantasy and reality. See *supra* notes 172, 237 and accompanying text. A person who fantasizes about an act of violence, or a sexual crime, will not necessarily act upon the stimulation. Dershowitz, *supra* note 19, at B7. If this were not the case, countries like Sweden and Holland, with much larger pornography industries, would have much higher sexual crime rates. CREWDSON, *supra* note 61, at 246. The argument that a person will act out the sexual fantasies of the pornography that he views needs to be evaluated in light of the studies on the causes of child sexual abuse. See KATHLEEN C. FALLER, UNDERSTANDING CHILD SEXUAL MALTREATMENT (1990). Faller cites two prerequisites for sexual abuse: (1) sexual arousal to children, and (2) the willingness to act upon the arousal. *Id.* at 55-64. Faller mentions several circumstances that can increase the probability of sexual abuse, but notes that these factors cannot by themselves cause sexual maltreatment. *Id.* at 58-61. These factors include fantasy about sexual activity, but Faller points out that a larger number of people have sexual responses to children than actually act them out. *Id.* at 56. A study of male college students found that 21% of the respondents reported having experienced sexual attraction to children, yet it is unlikely that one fifth of the male population sexually abuses children. *Id.* Faller also gives several psychological factors which might cause a person to act out his sexual fantasies about children. *Id.* This supports the conclusion that no direct link exists between child pornography and future acts of child sexual abuse, because the causes of such crimes are more complicated than the mere viewing of pictures. For a discussion of the "Jake Baker" controversy, see *infra* notes 305-11 and accompanying text. Regarding that issue, one commentator stated, "I do not believe that words of violence lead to acts of violence. If they did, Stephen King would be a man to worry about." *Fantasy Can Be Foolish but Its not a Federal Case*, THE HOUSTON CHRONICLE, Mar. 14, 1995, at 3.

304. In demonstrating how our justice system requires an *actus reus* in order for a crime to occur, criminal law professors often begin hypotheticals by assuming that the state has the power to read the thoughts and fantasies of its citizens. See *supra* note 303 for a definition of *actus reus*. The question would then be whether a person who fantasizes about harming another ought to be punished, before he or she acts on that fantasy. Besides assuming a fool-proof scheme exists to tap into a person's thoughts and see a person's actual fantasies (as opposed to speculating on a person's thoughts, based on his or her writings, speech, or actions), this hypothetical classroom question also seems to assume that it is only a matter of time before a person acts on a fantasy. For an analysis as to whether this second assumption has any basis in fact, see *infra* note 307 and accompanying text and *supra* note 303.

Usenet.³⁰⁵ Although the student was not actually prosecuted for the content of his stories,³⁰⁶ the stories alone prompted an investigation by the university and eventual criminal prosecution for a related matter. This case raised many important legal issues relevant to current technological advancements, including privacy issues related to Internet use, free speech issues, and line-drawing issues regarding the regulation of one's sexual fantasies, when those fantasies are made public.³⁰⁷

The issue that disturbed many people about this case was that the student used his classmate's real name in his story.³⁰⁸ Many Internet "regulars"³⁰⁹ who strongly support free speech denounced the student for that reason, as the classmate was seen by many to be victimized by the mere textual account, even though she had never even known that the stories existed until the controversy became public on the campus.³¹⁰ This case involved the use of a person's name and description in a sexual fantasy, but the response would undoubtedly be similar, if not stronger, had the student accompanied his story with computer-

305. The student, Abraham Jacob Alkhabaz, used the pseudonym "Jake Baker" when he posted his stories on Usenet (a part of the Internet consisting of on-line newsgroups, which contain messages and files "posted" by the general Internet community; see generally *supra* note 29), which involved the detailed rape, torture, and murder of the classmate. *Internet Sex Story Charges Dismissed*, FACT ON FILE WORLD NEWS DIGEST, July 6, 1995, at G2. Alkhabaz also exchanged e-mail with an unknown person, in which his violent fantasies were described. *Id.* Prosecutors argued that the e-mail evolved from "shared fantasies to a firm plan of action," but defense lawyers maintained that the published fantasies were protected speech. The federal district court judge agreed with the defense, and the charges against Alkhabaz were dismissed. *Computer 'Rape' Case Thrown out by Judge*, CHI. TRIB., June 22, 1995, at N4 [hereinafter *Case Thrown out*].

306. *Case Thrown out*, *supra* note 305, at N4.

307. U.S. District Judge Avern Cohn, who dismissed the charges against Alkhabaz, stated that "it is not constitutionally permissible . . . to infer an intention to act on a desire from a simple expression of the desire." *Charges Against Internet Fantasy Writer Dropped*, THE DETROIT NEWS, June 22, 1995, at 1. Cohn also stated that "[t]o infer an intention to act upon the thoughts and dreams from this language would stray far beyond the bounds of the First Amendment, and would amount to punishing Baker for his thoughts and desires." *Id.*

308. See MacKinnon, *supra* note 159, at 1961 ("[E]ven though names are only words, [Jake Baker's] making pornography of a name was seen as part of doing real harm to a real person. We still live in a textual world in which suddenly, if perhaps only momentarily, this injury became visible, real.").

309. Internet regulars would be those users who spend a significant amount of time accessing the Internet's resources, but especially those who post regularly to Internet newsgroups, frequent "chat rooms" (virtual rooms which allow users to engage in "real-time chat" with other users around the world; all that is required is an Internet connection and access to the "room" itself) World Wide Web forums, or bulletin board services (BBS). See *supra* note 29.

310. See generally *Incensed Author Writes of Revenge on Internet*, THE HOUSTON CHRONICLE, Mar. 12, 1995, at A12. Tanith Tyrre, a free-lance author, wrote a violent pornographic story about Baker in response to his story, as she was angered by his use of his classmate's real name. *Id.* She argued that "[h]e invaded her privacy. That's definitely a violation of something, if only a violation of community standards on the Net." *Id.*

manipulated images of the classmate.³¹¹ The fact that the student did not even know the classmate would be irrelevant to any who saw the pictures or read the stories; the violation would be virtual, yet just as abhorrent. The pictures would seem real, and would, therefore, be real to the viewer.³¹²

Child pornography has never been proscribed on the grounds that viewing it may cause one to molest children.³¹³ The "protection of morals" argument³¹⁴ has not provided any basis for such regulations, unlike those laws that deal with obscenity.³¹⁵ The mere possibility that viewing or creating virtual child pornography on one's computer will cause one to go out and molest children is not a reasonable governmental interest and therefore cannot provide an adequate basis for its suppression.³¹⁶ Thus, any regulation based on such grounds would be ungrounded in case law.³¹⁷

311. If other Internet users sympathized with the classmate because her name was used, one could reasonably speculate that the unauthorized use of her image would command an even greater outrage from the community, since "a picture is worth a thousand words."

312. To allude to Senator Hatch's statement, since the viewers would not be able to tell the difference between altered images of Alkhaz's subject and authentic images, there would be no difference. *Hearing, supra* note 32 and accompanying text. At face value, the images would appear to be genuine, despite the fact that they would represent a fantasy existing only in Alkhaz's mind. *Id.* Of course, the real difference would exist with regard to the subject, because in real life she is physically unharmed, but in the altered images she may be beaten or raped.

313. *See generally* *Osborne v. Ohio*, 495 U.S. 103 (1990).

314. *See supra* notes 289-93 and accompanying text.

315. *Osborne*, 495 U.S. at 109-10.

316. *See supra* notes 289-303 and accompanying text. In addition, regulating virtual child pornography on the sole basis of possible secondary effects will also be an ineffective way of dealing with sexual abuse of children. *See* CREWDSON, *supra* note 61, at 247 (quoting in part Rob Freeman-Longo, a researcher at Oregon State Hospital, who maintains that pornography does not make men commit sex crimes. Freeman-Longo notes that a pedophile does not need pornography to molest a child, as he could "look at the children's underwear section of a Sears catalogue and become aroused. . . ."). There is also the opposite conclusion: that the existence of child pornography leads to a decrease in sexual crimes against children, by providing an outlet for pedophiles' desires. Adelman, *supra* note 19, at 491. If this conclusion is accurate, then a positive reason exists for allowing the possession of virtual child pornography, but not real child pornography, as the lesser of two evils. *Id.* Real child pornography involves the sexual abuse of children, and that cannot be permitted under any circumstances. *See supra* note 9. *See also* Branscomb, *supra* note 145, at 1955-56 ("If one could prove with scientifically acceptable data that sexually explicit images can serve to satisfy rather than stimulate . . . urges . . . then sexually stimulating images might offer an alternative method of satisfying sexual urges . . ."). *See supra* notes 297-304.

317. In *Stanley*, the Supreme Court established that the government may not police the morality of its citizens in their own homes. *Stanley v. Georgia*, 394 U.S. 557, 566 (1969). Although *Osborne* held that the private possession of child pornography may be proscribed, it did so with regard to the fact that such materials were illegal *per se* under a *Ferber* analysis and were not merely obscene (as in *Stanley*). *Osborne v. Ohio*, 495 U.S. 103 (1990).

Besides resolving the issue of proximity of danger, the government would also need to consider the privacy issues involved with regulating the personal possession of virtual child pornography.³¹⁸ Assuming that virtual child pornography is to be regulated as obscenity is regulated, an individual cannot be forbidden from merely possessing the material in his own home, based on the secondary effect argument or preserving community morals.³¹⁹ Laws relating to its distribution could include existing federal laws,³²⁰ as well as state and local obscenity statutes.³²¹

Clearly the Supreme Court will need to analyze its prior case law and the peripheral arguments such as those based on potential indirect effects of virtual child pornography. In addition, however, the Court should consider public policy. Virtual child pornography will very likely affect the child pornography industry.³²² How the Supreme Court chooses to treat virtual child pornography in light of the First Amendment, therefore, becomes a matter of great public concern.

D. Public Policy Considerations

While virtual child pornography seems real, it is not; rather, it is fantasy and does not record any real event.³²³ Technological developments in computer graphics will force a paradigm shift, as the reality of images will have to be reevaluated.³²⁴ Continued trust of photographs will soon be naive in light of the ease with which they can be altered. Just as early viewers of television learned to distinguish the real from the imaginary, so must modern viewers of pictures and images remember that the camera can lie, and they must act according to the reality of our technological culture.³²⁵

A healthy skepticism of visual images is required, or else we will not be fully prepared to contend with those who will use that technology for depraved purposes. This problem is seen in a contemporary science fiction novel which

318. See *supra* note 317.

319. *Stanley*, 394 U.S. at 566.

320. 18 U.S.C.A. § 2252 (1996).

321. *E.g.*, 18 U.S.C. § 1462 (relating to the interstate or foreign distribution of obscene materials).

322. See *supra* part III and accompanying footnotes.

323. Note that real child pornography requires the sexual abuse of a child in its production. See *supra* notes 9, 239-40 and accompanying text. For a background on how virtual child pornography is produced, see *supra* part II.A.

324. See *supra* notes 159-78 and accompanying text.

325. *Id.* See also Bill Mahon, *All the News That's Fit to Manipulate*, EDITOR & PUBLISHER MAGAZINE, Mar. 2, 1996, at 48 ("Photographs always lie. They lied about reality when the process was invented in the 1830s and they lie with impeccable speed and accuracy 150 years later.").

contains a passage in which a villain projects holographic images for destructive purposes.³²⁶ The viewers of the images, unaccustomed to the sophisticated realism of the images, assume that they are real and react accordingly, but to their own detriment.³²⁷ With virtual child pornography, it is easy to assume that what is depicted is real, and therefore, contraband. It seems like a natural way of resolving the problem. At one time it was easy for radio listeners to believe whatever they heard on a program to be true.³²⁸ It was easy for early television viewers to believe that what they saw on the screen was really happening somewhere.³²⁹ But these ways of thinking were replaced with a healthy, realistic skepticism.³³⁰ The apparent reality of still photographs will likewise be deconstructed, and rightfully so. The blind faith in pictures will be replaced with a more moderate approach to visual reality.³³¹

People tend to assume that computer-manipulated photographs and images are "real," in that they represent a record of an actual event.³³² This assumption is based on the sheer power of the visual image, as well as the public's ignorance of computer graphics technology.³³³ Society needs to reevaluate this assumption in its legislation and not ignore it, despite Senator

326. GIBSON, *supra* note 29, at 90. In a "cyberpunk" futuristic world, the character, Peter Riviera, would regularly project a holographic image of a scorpion onto the brake pedals of passing motorcyclists. *Id.* The motorists, assuming that the image was real, would lose control of the vehicles. *Id.* Clearly, there is a danger in relying too heavily on a visual "reality" which can be altered at will by those possessing the technology. *See infra* note 328 (explaining how a distortion of radio "reality" in the 1930s led to mass hysteria).

327. GIBSON, *supra* note 29, at 90.

328. This paradigm resulted in the "War of the Worlds" radio scare on October 31, 1938. Orson Welles broadcast a radio play based on the novel by H.G. Wells, in which invaders from Mars ravaged the countryside. Listeners did not realize that the broadcast was a work of fiction, since Welles appeared to be making a news report (although he had apparently announced that the piece was a dramatization at the beginning of the broadcast). The result was nationwide panic. Boo, *TIME*, Nov. 7, 1938, at 40. Fifteen people were treated for shock at St. Michael's Hospital in Newark, New Jersey. *Id.* The present day radio listener is of course less susceptible to the power of radio, as the medium has become commonplace. Gleason L. Archer, *BIG BUSINESS AND RADIO* 418 (1939). The Martian attack play could be seen not only as testimony to the oratory skills of Orson Welles, but also as a warning to the radio industry of the dangers of broadcasting a play of such high-powered drama. *Id.* at 418-19. The radio play caused widespread hysteria in such a short time; listeners apparently did not bother to verify the source of the information of the Martian attack before giving way to panic. *Id.* The trust in the new technology (the radio) was almost absolute, and therefore listeners presumed the validity of the broadcasts. It may very well have been inconceivable to those listeners that the broadcast was fiction. To allude once more to Senator Hatch, it sounded real, so it was real. *See Hearing, supra* note 32.

329. Gardner, *supra* note 161, at 91-121.

330. Archer, *supra* note 328, at 418 (stating that as a medium becomes more commonplace, its power over its audience diminishes).

331. *Id.*

332. *See supra* notes 205-08.

333. Grantham, *supra* note 205, at 224-26 (emphasizing the visual nature of our culture).

Hatch's declaration to the contrary.³³⁴ On its face, virtual child pornography appears in every regard to be real child pornography, yet it is not.³³⁵ The dilemma which virtual child pornography presents for law enforcement officers needs to be appropriately addressed in light of practical issues of public policy, as well as the First Amendment.

Child pornography statutes need to be clear about how they are to approach the issue of virtual child pornography. Although child pornography includes only those visual depictions of real, sexually abused children,³³⁶ any image which could reasonably be thought to be child pornography by a law enforcement officer could be the basis of a prosecution. Thus, even if virtual child pornography is found to remain within the protection of the First Amendment, some virtual child pornographers, like Johnson, will find themselves in court.³³⁷ This result would occur because it would be impossible for a police officer to tell if the images involved the sexual abuse of a real child.³³⁸ When an image is so realistic that it appears on its face to be child pornography, the presumption should be in favor of the prosecutor.³³⁹ A defendant should have the burden of proving that no real children were sexually abused in the production of the image, and that the image is not, therefore, child pornography. Thus, under the following proposed amendment to the federal child pornography legislation,³⁴⁰ a limited affirmative defense would be available for those defendants who could prove to the fact-finder that the image is virtual, rather than real, child pornography.³⁴¹

V. PROPOSED AMENDMENT TO THE FEDERAL CHILD PORNOGRAPHY STATUTE

Under the current child pornography statutes of many states,³⁴² the burden of proof rests on the prosecutor to prove that the images in question are child

334. See *supra* text accompanying note 32.

335. *Supra* parts II.A, IV.A, and IV.B and accompanying notes and *supra* notes 9, 239-41.

336. *New York v. Ferber*, 458 U.S. 747, 764-65 (1982).

337. See *supra* part I (discussing Johnson, the hypothetical person who produces only virtual child pornography, using his scanner and computer).

338. See *supra* note 42.

339. If the burden of proof were allowed to remain as it is in the statute, it would become impossible to prosecute any real child pornographers. See *infra* note 361 (testimony of Bruce Taylor before the Senate Judiciary Committee). A shift in the burden of proof, therefore, is narrowly-drafted and necessary to resolve the current problem with the statute. For a defense of the proposed amendment to 18 U.S.C.A. § 2252, see *infra* part V.

340. See *infra* part V.

341. See *infra* part V.

342. E.g., 720 ILL. COMP. STAT. 5/11-20.1 (West 1996); NEV. REV. STAT. ANN. § 200.730 (Michie 1995); UTAH CODE ANN. § 76-5a-1 (1996). For a nearly complete list of state statutes relating to child pornography, see *supra* note 58.

pornography.³⁴³ Thus, in the case of Jones, a state would have to prove beyond a reasonable doubt that the pictures that he possessed were child pornography; that is, that they visually depicted real children engaging in sexual activities.³⁴⁴ Under the federal law, a defendant would be unable to present any evidence that the material in question was virtual, and not real, child pornography, because the artificial pornography would be treated as the real material.³⁴⁵ Thus, Johnson would have no affirmative defense, even though he did nothing more than create sexual images on his computer, and even though he did not sexually abuse any real children.³⁴⁶

This Note's proposed amendment to the federal law shifts the burden of proof to the defendant, requiring him to prove, by clear and convincing evidence,³⁴⁷ that the material in question is merely virtual child pornography.³⁴⁸ Images which appear on their faces to depict real children

343. For example, a prosecutor in Illinois must prove to a fact-finder that the defendant had knowledge of the minority status of the pornography subject. 720 ILL. COMP. STAT. 5/11-20.1(a)(1) (West 1996) (requiring that the subject of the child pornography be, in fact, a "child whom [the defendant] knows or reasonably should know to be under the age of 18"). In addition, Illinois law provides an affirmative defense to defendants who have a reasonable belief that the subject has reached the age of eighteen. *Id.* at 5/11-20.1(b)(1).

344. See *supra* part I. As pedophiles become more and more computer-savvy, it will become impossible to convict them under state law, because the pedophiles could always raise defense by stressing the prosecutor's burden of proving that a real child was used to create the picture. See *supra* note 343. Naturally, this will be difficult to prove beyond a reasonable doubt, considering the growing sophistication of computer graphics technology. Campolo, *supra* note 31, at 735-36. In the absence of an identifiable victim, it is often impossible for a prosecutor to prove the age of the child in the photograph. CREWDSON, *supra* note 61, at 245. Physiologists might be able to testify that the pornography subject in question had not yet reached majority, but such testimony does not ensure a conviction. *Id.*

345. 18 U.S.C.A. § 2252 (1996). For a more detailed description of the Child Pornography Prevention Act, see *supra* notes 96-98.

346. See *supra* notes 96-98. The federal amendment provides no affirmative defense for those defendants who can prove that they, like the hypothetical Johnson, did not use real children when creating their virtual child pornography. See *supra* part I.

347. The standard of "clear and convincing" evidence is a more exacting measure of persuasion than "preponderance of the evidence." CHARLES TILFORD MCCORMICK, MCCORMICK ON EVIDENCE 575-76 (John W. Strong et al. eds., 4th ed. 1992) [hereinafter MCCORMICK]. The clear and convincing standard is used, in part, for miscellaneous types of claims and defenses where there is thought to be a special danger of deception, or where the court considers that the particular type of claim should be disfavored on policy grounds. *Id.* at 576.

348. For example, a defendant could demonstrate his or her skill in manipulating computer-generated images, and an expert, appointed by the defendant or the court, could analyze the defendant's skill. For a background on how a defendant could create such images, see *supra* part II.A. Or, the defendant could testify verbally as to how he or she created the image, or watched it being created, and the fact-finder could determine whether this testimony is credible. But, if the defendant offered no evidence as to the origin of the image, the image would be presumed to be real child pornography. For a comparison of this affirmative defense to the insanity defense, in which all defendants are presumed to be sane, but allowed to disprove this presumption, see *infra* note 387.

engaging in sexual activities should carry a rebuttable presumption that they are, in fact, child pornography for purposes of the statute.³⁴⁹ The defendant would bear the burden of rebutting this presumption for each image which he or she is found to possess, and if the defendant is so able, he or she could not be convicted of possessing child pornography.³⁵⁰ Thus, the statute would be amended to realistically address the problem of virtual child pornography by allowing a limited, implied affirmative defense for those defendants who have not possessed actual child pornography. This proposed amendment will keep child pornography legislation up-to-date with new technology, while staying narrowly-drafted enough to pass a constitutional attack.³⁵¹

This affirmative defense is required in order to recognize the inherent differences between real child pornography and virtual child pornography.³⁵² The proposed amendment to current legislation is based on a balance between the defendant's rights under the First Amendment and his or her right to privacy, and the state's interest in preventing the production and distribution of real child pornography. The defense would only apply to those defendants that would be able to rebut the presumption for each picture that they possess. The law will be directed toward those defendants such as Johnson, who have a few virtual pornography images on their computers that they created themselves. It would allow for reasonable freedom of thought and expression, while leaving the government with sufficient power to prosecute those pornographers who are an actual danger to children.

349. The presumption would be rebuttable by clear and convincing evidence, which would serve to shift the burden of proof. *But see* *Coleman v. Darden*, 595 F.2d 533, 536 (Colo. 1979) (reasoning that irrebuttable presumptions against criminal defendants should be discouraged because they prevent individualized determinations of fact). *See infra* notes 381-87 and accompanying text.

350. *See infra* notes 381-87 and accompanying text. *See also* MCCORMICK, *supra* note 347, at 576.

351. A defendant could attack the constitutionality of the legislation on First Amendment grounds and could assert that the *Ferber* definition of child pornography does not include virtual child pornography. *See supra* notes 239-41. But because this amended statute would not strictly treat virtual child pornography as real child pornography, it should be upheld by the Supreme Court. *See infra* notes 381-87 and accompanying text.

352. For an analysis of why virtual child pornography is different from actual child pornography, *see supra* parts II.A, IV.A and IV.B, and particularly *supra* notes 239-41.

A. *Proposed Amendment to 18 U.S.C. §2252*³⁵³

[Note: the author proposes that section 2252 be amended to include the following language as Subsections (a)(5) and (a)(6).]

§ 2252. Certain Activities Relating to Material Involving the Sexual Exploitation of Minors:

(5) Any film, videotape, photograph or other similar visual reproduction or depiction by computer which appears on its face to depict a child engaged in any activity described in this section shall be presumed to be child pornography for purposes of this Section.

(6)(A) It shall be an affirmative defense to a charge of child pornography that each subject of the film, videotape, photograph or other similar visual reproduction or depiction by computer was not a real child under the age of eighteen (18) engaged in sexual activity, but was, rather, a computer-created image of an imaginary person, or a computer-manipulated image of a real person, or that the child was, in fact, eighteen (18) years of age or older.

(B) The defendant shall bear the burden of rebutting, by clear and convincing evidence, the presumption contained in subsection (a)(5) so as to rely on this affirmative defense.

B. *Commentary*

This proposed amendment to the federal child pornography statute would solve the problem of the prosecutor's burden of proof. Under current federal legislation, if an image appears to be child pornography, then an irrebuttable

353. The original text of the federal child pornography legislation, before it was amended by the Child Pornography Prevention Act of 1996, read as follows:

Certain activities relating to material involving the sexual exploitation of minors

(a) Any person who—

(1) knowingly transports or ships in interstate or foreign commerce by any means including by computer or mails, any visual depiction, if—

(A) the producing of such visual depiction involves the use of a minor engaging in sexually explicit conduct; and

(B) such visual depiction is of such conduct . . . [following subsections relate to secondary distributors, and buildings used for distribution] . . . shall be punished as provided in subsection (b) of this section.

(b)(1) Whoever violates . . . paragraph (1), (2) or (3) of subsection (a) shall be fined under this title or imprisoned not more than 15 years, or both, but if such person has a prior conviction under this chapter . . . such person shall be fined . . . and imprisoned for not less than five years nor more than 30 years.

18 U.S.C.A. § 2252 (West 1996).

presumption is created that the material is child pornography.³⁵⁴ This presumption eliminates the issue of whether the prosecutor can prove that the material actually involved the sexual exploitation of a minor, or if it was a computer-manipulated image instead. It simply does not matter anymore at that point because, under the current federal legislation as amended,³⁵⁵ both are treated exactly the same.³⁵⁶

In contrast, under many current state laws,³⁵⁷ the prosecutor has the burden of proving that the pornographic material in question depicts a child below a certain age engaging in sexual conduct.³⁵⁸ Thus, a pornographer is given the benefit of the doubt and cannot be convicted if the state fails to establish that a real minor is accurately depicted in the image as engaging in sexual activities. So far, this apparent loophole has not benefited pornographers much, because the technology is not yet widespread.³⁵⁹ An average, non-expert is presumed to know the difference between a real child and a virtual image of a child.³⁶⁰ But soon, it will not be so easy for the prosecutor to convict a suspected pornographer.³⁶¹ Each defendant would have a built-in

354. *See supra* notes 96-98.

355. *See supra* notes 96-98.

356. *See supra* notes 96-98.

357. 720 ILL. COMP. STAT. 5/11-20.1 (West 1996).

358. *Id.* *See also* 18 U.S.C.A. § 2252(a)(1). The prosecutor must show that the defendant knew or reasonably should have known that the subject was under the age of eighteen. *Id.* *See also* CREWDSON, *supra* note 61, at 245. Before it was amended, the federal law (18 U.S.C.A. § 2252) required actual knowledge or reckless disregard for a performer's minority in order for a conviction to be valid. *United States v. Burian*, 19 F.3d 188, 191 (5th Cir. 1994).

359. *See generally* *United States v. Nolan*, 818 F.2d 1015 (1st Cir. 1987). In this case, the defendant appealed his conviction for receiving child pornography through the mail by arguing that the government should have been required to prove that the photographs in question were truly representations of minors engaging in sexual conduct. *Id.* at 1016. The pictures on their faces appeared to be child pornography, and the state presented pediatric testimony that the subjects were minors. *Id.* at 1017. But Nolan claimed that a photography expert should have been required. *Id.* The First Circuit held that it is within the range of ordinary competence for laypersons to determine if they are viewing a real photograph, and not an artistic rendition. *Id.* at 1017-18. The court upheld the trial court's decision to convict the defendant, stating that the trial judge could reasonably infer that the subjects of the pictures were real children, since photos are taken of something, and not generated by an artist. *Id.* at 1018. The court in this case did not consider computer graphics technology as an issue, and the defendant did not raise the issue, instead arguing that the subjects of the pictures could have been wax dummies or other simulated images. *Id.*

360. *Id.* at 1017-18.

361. Bruce Taylor has effectively explained this legal problem:

If the Government must continue to prove beyond a reasonable doubt that [images] are indeed actual depictions of an actual minor engaging in the sex portrayed, then there could be a built-in reasonable doubt argument in every child exploitation pornography prosecution. The inability to find . . . the source of all child porn pictures, real or apparent, plus the ability of technology to confound both the eye and any definitive analysis, makes such proof 'difficult', if not impossible

argument that the images are not child pornography;³⁶² it would be difficult for the prosecutor to prove otherwise. The burden of proof should shift to the pornographer to prove that he used his computer, and not a real child, to create the image.³⁶³

The Child Pornography Prevention Act of 1996 rests on the assumption that no difference exists between a depiction of an actual child, who has really engaged in sexual intercourse, and virtual child pornography, which involves mere fantasy.³⁶⁴ This assumption undermines the emotional trauma of the child victim who is sexually abused in the former case. It also evades the real legal issue of whether the category of child pornography includes computer-manipulated images which do not require the sexual abuse of children to produce.³⁶⁵

The Supreme Court was clear in *Ferber*³⁶⁶ that the category of proscribable child pornography is a narrow one. Although the threat to law enforcement that virtual child pornography presents cannot be ignored, the issue is not resolved by merely equating virtual child pornography with real child pornography. Aside from being unconstitutional for reasons stated above, the current federal solution³⁶⁷ is superficial and unrealistic, because it primarily assumes that a graphical work of fiction is just as real as traditional child pornography, which has always been a visual record of sexual abuse.³⁶⁸

Clearly, the prosecutor's current burden of proof is unacceptable in light of the difficulty of proving that a sophisticated child pornography image involved the sexual abuse of a real child, and is not virtual pornography.³⁶⁹

Hearing, *supra* note 32, at 895 (testimony of Bruce Taylor). This testimony relates to the Child Pornography Prevention Act of 1996. See *supra* notes 32, 96-98, 344.

362. *Hearing*, *supra* note 32, at 895 (testimony of Bruce Taylor).

363. Shifting the burden of proof would make clear public policy sense, because the pornographer, not the prosecutor, is in a better position to know how the material was created and to have access to any relevant evidence. See MCCORMICK, *supra* note 347, at 576. Even if the pornographer obtained the material second-hand through the Internet, or in person from another pornographer, he or she should be required under law to inquire as to the specifics of the production. *Id.*

364. *Hearing*, *supra* note 32, at 894 (testimony of Bruce Taylor that "if you can't tell the difference, then there isn't any difference").

365. For a discussion of the practical and legal differences between the real child pornography and virtual child pornography, see *supra* parts II.A, IV.A and IV.B, and *supra* notes 9, 139-41.

366. *New York v. Ferber*, 458 U.S. 747, 764 (1982).

367. See *supra* notes 96-98.

368. See *supra* note 9.

369. Such a burden of proof, combined with the current state of computer graphics technology alone, makes it theoretically almost impossible to convict a child pornographer. See *supra* note 361. As technology becomes more advanced, which it certainly will, the odds against prosecutors will

Pedophiles will soon learn that the best way to avoid a conviction is to merely claim that their entire collection consists of virtual pornography, and therefore force the prosecutor to prove otherwise.³⁷⁰ This would, in effect, frustrate the prosecution of all child pornographers, and allow most to go free, if they are even prosecuted at all.³⁷¹

If all apparent child pornography³⁷² is automatically treated as virtual child pornography, the result will be even worse than if it is all treated as real child pornography as under the federal law. Law enforcement officers will have enormous difficulty enforcing anti-pornography laws, and those laws would soon be rendered useless.³⁷³ While "instant-photographs"³⁷⁴ will almost always be presumed to be real child pornography,³⁷⁵ any images found on a computer will be more ambiguous. Law enforcement officers should not have to bring photography and computer graphics experts into each child pornography investigation.

To avoid this probability, the federal child pornography statute must be updated to close this loophole. However, an amendment must satisfy the constitutional requirements, by distinguishing virtual child pornography from that unprotected speech in *Ferber*,³⁷⁶ and not merely introducing a shotgun approach to the situation. The issue of virtual child pornography cannot be ignored, but the current federal solution should be avoided in favor of more narrow legislation.³⁷⁷ A shift in the burden of proof on the issue of whether

increase. See *supra* note 361. Clearly, this loophole needs to be closed before habitual child pornographers are allowed to escape responsibility for their crimes.

370. *Hearing*, *supra* note 32, at 895 (testimony of Bruce Taylor).

371. *Id.*

372. "Apparent child pornography" would include all sexual images of children, whether real or virtual child pornography, because it would theoretically be impossible to tell just by looking at the image into which class it would fall. This would be a question for the trier of fact to determine, assuming that the defendant raised the affirmative defense. See *supra* note 348.

373. See Johnson, *supra* note 32, at 329.

374. "Instant-photographs" would include those pictures such as Polaroids, where the pictures are developed instantly inside the camera, and where the film does not have to be removed to be developed. See *infra* note 375.

375. Most child pornographers use their own developing equipment so that their images are not seen by outsiders. CREWDSON, *supra* note 61, at 245. If a Polaroid or similar photograph is discovered, the defendant will have a more difficult time establishing his defense, due to the difficulties of altering such instant photographs. In contrast, a defendant will more easily prove that a computer image is virtual pornography, because such images are easily manipulated with computer graphics software. See *supra* part II.A.

376. *New York v. Ferber*, 458 U.S. 747 (1982).

377. See *supra* text accompanying note 353 (proposed amendment to 18 U.S.C. § 2252).

an image in question is real should be effective because it will force the defendant to reveal evidence to substantiate his or her affirmative defense.³⁷⁸ As technology advances, law-makers must stay current and adapt to changes.

This proposed amendment to the federal child pornography legislation is constitutional under the First Amendment. By providing an affirmative defense to those pornographers who do not sexually abuse real children when creating the pornography, the amendment is narrowly drafted to the point that it will not affect constitutionally protected speech. The proposed legislation is designed to ensure that real child pornographers, those who sexually molest children, will not escape criminal liability by relying on a loophole which computer graphics technology has created.³⁷⁹ Since real child pornography is not constitutionally protected,³⁸⁰ the above proposal should pass constitutional muster under a First Amendment analysis.

The proposed amendment is also constitutional in light of the Fifth Amendment and due process rights of a defendant in a criminal proceeding.³⁸¹ Forcing the defendant to bear the burden of proving to a trier of fact, by clear and convincing evidence, that the pornographic material in question was not created by sexually abusing a real child is not a denial of his or her civil rights.³⁸² Like other affirmative defenses provided to criminal defendants,³⁸³ including the insanity defense,³⁸⁴ the limited affirmative defense in the above

378. See *supra* note 348.

379. Quittner, *supra* note 32, at 74.

380. *Ferber*, 458 U.S. at 764.

381. See generally U.S. CONST. amends. VI and XIV. Criminal defendants have a fundamental right to a fair trial under the Fourteenth Amendment, and a presumption of innocence is a basic component of the fair trial protection. *Id.* See also *Gatto v. Hoke*, 809 F. Supp. 1030 (E.D.N.Y. 1992). A criminal defendant is entitled to a presumption of innocence that can be overcome only by proof of guilt beyond a reasonable doubt. *United States v. Orena*, 811 F. Supp. 819, 826 (E.D.N.Y. 1992). Irrebuttable presumptions against criminal defendants are disfavored by courts because they preclude individualized determinations of fact upon which substantial rights or obligations may depend. *Coleman v. Darden*, 595 F.2d 533 (10th Cir. 1979), *cert. denied*, 444 U.S. 927. See also *NLRB v. Heyman*, 541 F.2d 796 (9th Cir. 1976) (a civil case holding that a statute does not afford due process if it creates a presumption which operates to deny a fair opportunity to rebut). However, the amendment proposed above provides a rebuttable presumption, and each criminal case would involve individual determinations by the trier of fact.

382. See *supra* note 381 for an overview of these rights.

383. For example, duress is an affirmative defense, and the defendant has the burden of proving the essential elements by a preponderance of the evidence. *United States v. Christian*, 843 F. Supp. 1000, 1004 (D. Md. 1994). Entrapment is also an affirmative defense, with the burden of proof resting on the criminal defendant. *United States v. Stuart*, 923 F.2d 607 (8th Cir. 1991).

384. Federal law provides the following insanity defense:

§ 17 Insanity defense

(a) Affirmative defense. It is an affirmative defense to a prosecution under any federal statute that, at the time of the commission of the acts constituting the offense, the

proposal arises from a rebuttable presumption.³⁸⁵ The law can presume all persons to be sane,³⁸⁶ although defendants are to be given the chance to rebut that presumption by an affirmative defense, and establish their own insanity.³⁸⁷

With regard to a pornographic image which appears on its face to be child pornography, it is not unconstitutional to presume the material to be real child pornography and not virtual child pornography.³⁸⁸ In addition, as a practical matter, it could be impossible to determine, just by looking at the image, whether a real child was sexually abused in its production. The only way to determine the factual issue of whether the material is child pornography would be to present evidence as to the origin of the material.³⁸⁹ The defendant would be the best source of such evidence, just as a defendant would be the only source of evidence as to whether he or she was insane, for purposes of the insanity defense.³⁹⁰ A rebuttable presumption in favor of the prosecution on the issue of how the pornographic materials were created, therefore, is acceptable and not unduly unfair to a criminal defendant.³⁹¹

defendant, as a result of a severe mental disease or defect, was unable to appreciate the nature and quality or the wrongfulness of his acts. Mental disease or defect does not otherwise constitute an offense.

(b) Burden of proof. The defendant has the burden of proving the defense of insanity by clear and convincing evidence.

18 U.S.C.A. § 17 (West Supp. 1996)

385. See *supra* note 381 and accompanying text.

386. *Branscomb v. Norris*, 47 F.3d 258 (8th Cir. 1995) (holding that unless there is some contrary indication, state and federal trial judges may presume that defendants are competent).

387. Courts have upheld statutes that require criminal defendants to establish their insanity as an affirmative defense to a crime. See generally *United States v. Abou-Kassem*, 78 F.3d 161 (5th Cir. 1996); *United States v. Cartagena-Carrasquillo*, 70 F.3d 706 (1st Cir. 1995); *United States v. Byrd*, 834 F.2d 145, 147 (8th Cir. 1987); *United States v. Amos*, 803 F.2d 419 (8th Cir. 1986) (holding that there is no due process violation in the insanity affirmative defense); *Williams v. Vasquez*, 817 F. Supp. 1443, 1462 (E.D. Cal. 1993) (relying on CAL. EVID. CODE § 115.522 in requiring a criminal defendant to prove his insanity defense by a preponderance of the evidence). In addition, the clear and convincing proof standard has been found to be constitutional for the federal insanity defense. *United States v. Freeman*, 804 F.2d 1574, 1576 (11th Cir. 1986). See also *supra* note 347.

388. See *supra* notes 381-87 and accompanying text.

389. *Hearing, supra* note 32, at 895 (testimony of Bruce Taylor).

390. *Id.* See also *supra* notes 347, 361.

391. See *supra* notes 381-87 and accompanying text.

VI. CONCLUSION

Federal law regulating child pornography must keep in pace with technology. While the recent amendment to the federal statute purports to address the issue of virtual child pornography, it fails to resolve that issue in a constitutional and realistic manner. Many state laws are simply not up-to-date in light of current computer graphics technology. The proposed amendment to the federal statute is a narrowly-drafted solution that recognizes the technological changes in the child pornography industry and thereby will better combat those pornographers who sexually exploit children.

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