COPYRIGHT LAW AND SOCIAL DIALOGUE ON THE INFORMATION SUPERHIGHWAY: THE CASE AGAINST COPYRIGHT LIABILITY OF BULLETIN BOARD OPERATORS

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I. INTRODUCTION

As the National Information Infrastructure (NII) rapidly continues to take shape, revolutionizing the means and modes of mass communication in the United States, there arises the growing need to explore the future of social interactions through this media. Will the NII live up to the vision of its proponents and meet the Jeffersonian ideal of promoting individual freedom and diversity?[1] Or, will the NII perpetuate the bottleneck of broadcasters and publishers that exist in the current centralized structures?[2]

A variety of factors including the structure of the network, the means of governmental regulation, and the scope of property rights asserted over on-line uses of information, will play a key role in determining the future of social dialogue and the individual's

[1] The view that digital technology has a social and political significance is shared by commentators from various disciplines.

In political science, see ITHIEL DE SOLA POOL, TECHNOLOGIES OF FREEDOM, ON FREE SPEECH IN AN ELECTRONIC AGE (1983); *see also* ITHIEL DE SOLA POOL, TECHNOLOGIES WITHOUT BOUNDARIES, ON TELECOMMUNICATIONS IN A GLOBAL AGE (1990) (pointing to five aspects of electronic communication that are likely to change society: overcoming the barrier of distance in communication, convergence of speech text and pictures in a single form of representation, the growing share of information handling in all of human activities, the convergence of computing and communicating, and the reversal of the media revolution); Mitchell Kapor, *Where Is the Digital Highway Really Heading? The Case for a Jeffersonian Information Policy*, WIRED, July/Aug. 1993, at 53 (arguing that the question of whether the information infrastructure will end up promoting openness, freedom, and diversity, depends on a political decision of who controls the switches).

In literature and social theory, see GEORGE P. LANDOW, HYPERTEXT, THE CONVERGENCE OF CONTEMPORARY CRITICAL THEORY AND TECHNOLOGY (1992); RICHARD A. LANHAM, THE ELECTRONIC WORD: DEMOCRACY, TECHNOLOGY AND THE ARTS (1993) (electronic text has potentially democratizing effect); *see also* Andrew Gillespie & Kevin Robins, *Geographical Inequalities: The Spatial Bias of the New Communication Technologies, in* THE INFORMATION GAP: HOW COMPUTERS AND OTHER NEW COMMUNICATION TECHNOLOGIES AFFECT THE SOCIAL DISTRIBUTION OF POWER 7 (Marsha Siefert et al. eds., 1990) (arguing that there is a reciprocal relationship between digital communication and social processes); Graham Murdoc & Peter Golding, *Information Poverty and Political Inequality, Citizenship in the Age of Privatized Communication, in* THE INFORMATION GAP: HOW COMPUTERS AND OTHER NEW COMMUNICATION TECHNOLOGIES AFFECT THE SOCIAL DISTRIBUTION OF POWER 180 (Marsha Siefert et al. eds. 1990) (technology as a facilitator of citizenship).

Several legal scholars also focused on those issues. *See* Pamela Samuelson, *Digital Media and the Changing Face of Intellectual Property Law*, 16 RUTGERS COMPUTER & TECH. L.J. 323 (1990) [hereinafter Samuelson, *Digital Media*]; ANN WELLS BRANSCOMB, WHO OWNS INFORMATION? FROM PRIVACY TO PUBLIC ACCESS (1994); Margaret Chon, *Postmodern "Progress": Reconsidering The Copyright and Patent Power*, 43 DEPAUL L. REV. 97, 128-32 (1993).

[2] *See infra* notes 293-308 and accompanying text.

ability to freely exchange and access information on the NII. Copyright law may shape the relationships between the different social agents involved in on-line exchanges, as it provides individuals with the legal power to control the dissemination of proprietary information.[3]

Two recent district court cases[4] illustrate how the restrictive mandates of current copyright law prevent bulletin boards systems (BBS) from becoming forums for social interaction.[5] Both cases found operators of BBSs liable under copyright law for infringing materials posted on their systems.[6] In *Playboy Enterprises Inc. v. Frena*,[7] the plaintiff, Playboy magazine, argued that a BBS operator who posted photographs originally published in its magazine infringed the copyright in those pictures. The court apparently agreed and held that making Playboy magazine photos available on a BBS constituted copyright infringement.[8] Several months later, in *Sega Enterprises Ltd. v. Maphia*,[9] a district court in California found a BBS operator liable as a contributory infringer for the uploading and downloading of video-game software by its subscribers.[10]

[3] For a Hohfeldian analysis of copyright, see Wendy J. Gordon, *An Inquiry into the Merits of Copyright: The Challenges of Consistency, Consent and Encouragement Theory*, 41 STAN. L. REV. 1343 (1989) (discussing the various components of the copyright package—privileges, powers, and rights—and their distinct economic functions).

[4] *Playboy Enters., Inc. v. Frena*, 839 F. Supp. 1552 (M.D. Fla. 1993); *Sega Enters. Ltd. v. Maphia*, 857 F. Supp. 679 (N.D. Cal. 1994).

[5] A bulletin board system is an on-line service that allows users to exchange messages, texts, computer programs, photographs, music, and other forms of information by uploading materials from the user's computer to the system and by downloading materials from the BBS to his own computer. *See also* CAROLYN WATTERS, DICTIONARY OF INFORMATION SCIENCE AND TECHNOLOGY (1992) ("Bulletin Board—a variation of electronic mail in which all of the messages are sent to a common receiver (i.e., the bulletin board). The users of the system then have access to all of the messages of the bulletin board. Bulletin boards may be subject specific and may be associated with regular electronic mail and/or news service."). For a slightly different definition see DONALD SPENCER, WEBSTER NEW WORLD DICTIONARY OF COMPUTER TERMS (1992).

BBSs are accessible to subscribers (free or for a fee) through telephone lines and modems, or through public data networks, such as Tymnet or the Internet. Simply put, the Internet is "[a]n interconnected group of networks, in which each supports communications among its own members." *Id.* It started out as an effort to connect the U.S. Defense Department network (ARPAnet) and various other networks. For an overview of the Internet's past and present history *see* ED KROL, THE WHOLE INTERNET USER'S GUIDE (2d ed. 1994). BBSs may run on personal computers connected by modem to a telephone line, or through the Internet, such as a BBS operated on USENET. BBSs running on Information Services such as CompuServe are often called Forums. *See* THE NEW HACKER'S DICTIONARY (1991) ("Any discussion group accessible through a dial-in BBS, a mailing list, or a newsgroup. A forum functions much like a bulletin board; users submit posting for all to read and discussion ensues.").

[6] *Playboy*, 839 F. Supp. at 1559; *Sega*, 857 F. Supp. at 679.

[7] 839 F. Supp. at 1552.

[8] *Id.* at 1559.

[9] 857 F. Supp. at 679.

[10] *Id.* at 686.

The outcome of these cases may determine the future of on-line information services.[11] This article argues that imposing liability on BBS operators hinders rather than promotes the potential of digital technology as a genuinely democratic medium. In fact, such liability likely will restrict the free flow of information by encouraging a more centralized control over content. This will occur either through operators monitoring exchanges among subscribers, or by producing information only from managed sites. To impose liability on BBS operators thus limits individual participation in social dialogue, and tends to perpetuate the existing structures of power on the NII.

Both *Playboy* and *Sega* demonstrate the disadvantages of using current copyright law to administer rights in a digitized environment. While current debates over the legal definition of copyright on the information superhighway acknowledge the need to update and reform copyright principles, commentators fail to focus on the changing power relations and the effects copyright law has on the new opportunities for social dialogue.[12] A report recently released by the Working Group on Intellectual Property of Information In-

11 A class action based on similar claims was recently filed by the Frank Music Corp., a New York-based music publisher, on behalf of 140 other music publishers, represented by the Harry Fox Agency Inc. and the National Music Publishers Association (NMPA), over the use of copyrighted songs by CompuServe. The plaintiffs claim that CompuServe has willfully allowed unlicensed songs to be made available to customers over its MIDI (Musical Instrument Digital Interface) Music Forum. *See* Frank Music Corp. v. CompuServe Inc., No. 93 Civ. 8153 (S.D.N.Y. Nov. 29, 1993). Another lawsuit involves charges of copyright infringements made by the Church of Scientology against a computer bulletin board and an Internet access provider. The allegedly infringing texts were posted by a former Scientology minister on an on-line service as part of his crusade against the church. *See* Andrew Blum, *Scientology Search Case Before Judge; Church Says Ex-Minister Put Its Data on Internet*, NAT'L L.J., Mar. 6, 1995, at A7.

12 For one of the pioneering efforts to distinguish digital media as a unique category which challenges traditional copyright law see Samuelson, *Digital Media*, *supra* note 1. Commentators disagree on the type of copyright reform that is necessary. Some argue that it is necessary to rethink copyright law schemes altogether, see Pamela Samuelson, *CONTU Revised: The Case Against Copyright Protection for Computer Programs in Machine-Readable Form*, 1984 DUKE L.J. 663; Pamela Samuelson, *Modifying Copyright Software: Adjusting Copyright Doctrine to Accommodate a Technology*, Jurimetrics J. 179 (Winter 1988); Pamela Samuelson & Robert J. Glushko, *Intellectual Property Rights for Digital Library and Hypertext Publishing*, 6 HARV. J.L. & TECH. 237 (1993). Others believe that copyright law framework is applicable to digital technology. *See* Miller, *infra* note 316 and accompanying text.

The debate over the legal definition of copyright in a digitized era received international attention. *See* WORLD INTELLECTUAL PROPERTY ORGANIZATION, WORLDWIDE SYMPOSIUM ON THE IMPACT OF DIGITAL TECHNOLOGY ON COPYRIGHT AND NEIGHBORING RIGHTS, (1993); The National Information Infrastructure Act of 1993, and The High Computing Act of 1992 both announce the relationship between technology, accessibility of information, and participation. *See* The National Information Infrastructure Act of 1993, H.R. 1757, 103d Cong., 1st Sess., §§ 2(1), 2(4) (1993). Both laws also emphasize the need to develop means of protection for copyright in digital environment. *Id.* at §§ 3, 5; *see infra* note 13 and accompanying text. The perspective taken by this paper is that copyright reform should consider the way digital technology transforms power relations, and the new opportunities it creates for social dialogue.

frastructure Task Force,[13] commonly known as the IITF Green Paper, found that although technology has advanced beyond the practical reach of copyright law, there is no need for a new law. The Working Group recommended only a limited number of changes in the current law to resolve confusion regarding several central copyright concepts.[14] This article argues, however, that a copyright reform requires more than simply clarifying current copyright concepts. It is necessary, instead, to reexamine the validity of the underlying assumptions of copyright law in a digitized environment. Furthermore, it is necessary to guarantee that the continuous application of copyright concepts would comply with the purpose of copyright law.

Applying copyright law in a digitized environment creates both conceptual and substantive problems. The conceptual problems reflect the fact that copyright law tailors itself to address the special needs of the print technology—needs rendered invalid in a digitized environment.[15] Consequently, confusion arises when courts and commentators alike attempt to apply current copyright concepts in a digitized context. For example, it is difficult to identify the various "copies" created during the process of creating and using files on-line. It is also unclear what constitutes "public distribution" of information on-line. Where does posting on an on-line service occur—in the privacy of one's node, or in a virtual public forum? Applying the conceptual framework of copyright law to digital technology requires translating copyright principles, rather

13 The Information Infrastructure Task Force ("IITF") was formed by President Clinton in February 1993 to articulate and implement the administration's vision for the National Information Infrastructure ("NII"). The Working Group on Intellectual Property Rights was established to examine the intellectual property implications of the NII. INFORMATION INFRASTRUCTURE TASK FORCE, INTELLECTUAL PROPERTY AND THE NATIONAL INFORMATION INFRASTRUCTURE: A PRELIMINARY DRAFT OF THE REPORT OF THE WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS 1 (July 1994) [hereinafter IITF GREEN PAPER].

14 *Id.* at 120-35.

15 Copyright law is a product of the print technology in two senses. First, the technology of the book created an economic necessity—publishing printed books requires a considerable expenditure of capital and labor, and therefore it created the need to protect that investment. Second, "the fixed nature of the individual text made possible the idea that each author produces something unique and identifiable as property." LANDOW, *supra* note 1, at 93; *see also* MARSHALL MCLUHAN, THE GUTENBERG GALAXY: THE MAKING OF TYPOGRAPHIC MAN 229-33 (1962). For the view of copyright law as one of the social changes following the print technology, see ELIZABETH EISENSTEIN, THE PRINTING PRESS AS AN AGENT OF CHANGE 229 (Cambridge Univ. Press 1976) (1991); POOL, TECHNOLOGIES OF FREEDOM, *supra* note 1, at 16-17; POOL, TECHNOLOGIES WITHOUT BOUNDARIES, *supra* note 1, at 254-59 (arguing that copyright is a legal institution that was developed for the printing press and its significance in the electronic age would therefore decline); John Perry Barlow, *The Economy of Ideas: A Framework for Rethinking Patents and Copyrights in the Digital Age*, WIRED, Mar. 1994, at 85 (arguing that copyright law was developed to convey forms and methods of expression entirely different from digitized medium); *see also* M. ETHAN KATSH, THE ELECTRONIC MEDIA AND THE TRANSFORMATION OF LAW 172-81 (1989).

than copyright doctrine, to the new medium. Failing to draw the crucial distinction between principled translation and formal application causes the courts to skew the delicate balance between copyright owners and on-line users created by copyright law in the pre-digital context. The end result of current copyright cases is therefore usually overprotection or underprotection of copyright interests.

Furthermore, applying copyright law to digital technology without recognizing how it transforms the creative environment prevents a comprehensive discussion of the competing interests involved in this milieu. As stated, copyright law utilizes and reinforces the centralized structure of print technology.[16] Imposing copyright principles on a digitized environment may unnecessarily reproduce this centralized structure.

This article demonstrates these arguments by analyzing the recent BBS cases. Part II critically analyzes the decisions in *Playboy* and *Sega*, and highlights the legal difficulties raised by the courts' analyses. Part III presents the conceptual difficulties involved in applying copyright law to digital technology. It demonstrates the complexity of three key copyright concepts used by the courts to establish liability. The first is the concept of a "copy," which relies on the notion of fixation.[17] This concept is undermined by the virtual nature of digitized texts. The second concept focuses on "distribution," which in a digitized context is replaced by the notion of "access." The third conceptual difficulty raises itself in the context of the private/public dichotomy. This article argues that these conceptual difficulties reflect a profound inconsistency between the fundamental assumptions of copyright law and the digitized environment. Finally, Part IV discusses the consequences of imposing liability on BBS operators for the information that they carry, and examines the social and political implications of such an outcome.

II. The Case Law Approach to Computerized Bulletin Boards

A. Playboy Enterprises, Inc. v. Frena

Playboy Enterprises, Inc. v. Frena,[18] involved a BBS of sexually explicit photographs. Subscribers were able to log-in and browse through the BBS' directories of photographs, look at the pictures,

16 *See infra* notes 299-308 and accompanying text.
17 17 U.S.C. § 101 (1988) ("copies").
18 839 F. Supp. 1552 (M.D. Fla. 1993).

download high quality computerized copies of the photographs, and then store the copied images on their home computers.[19] Playboy claimed that many of the images posted on the BBS were copies of its copyrighted photographs and were copied from its magazine.[20] Playboy thereupon sued the BBS operator Frena for copyright infringement.[21] Frena argued that he himself did not copy any of the plaintiff's photographs, and was not aware of the copies posted on the BBS by his subscribers.[22]

In essence, copyright infringement occurs whenever one exercises, without authorization, any of the exclusive rights granted to the copyright owner under section 106 of the 1976 Copyright Act.[23] Section 106 grants the copyright owner an exclusive right to do and to authorize any of the following: reproduce, adapt, publicly distribute, publicly perform, and publicly display the copyrighted work.[24] The court found the defendant liable for infringing the plaintiff's exclusive rights to publicly distribute and display its copyrighted photographs.[25] It held that the defendant infringed Playboy's right to distribute copies to the public by supplying a product containing unauthorized copies of the copyrighted photographs.[26] The court further held that the defendant's display of Playboy's copyrighted photographs on-line constituted a public display.[27] The following sections discuss these grounds for liability under copyright law.

1. Infringing the Right of Public Distribution

The court found the defendant liable for infringing Playboy's exclusive right of public distribution. The court's opinion provides a short explanation for this conclusion, which does not reveal much about the court's analysis:

> PEI's right under 17 U.S.C. § 106(3) to distribute copies to the public has been implicated by Defendant Frena. . . . There is no dispute that Defendant Frena *supplied a product containing unauthorized copies* of a copyrighted work. *It does not matter that Defend-*

19 *Id.* at 1554.
20 *Id.*
21 The case involved other claims for trademark infringement and violations of section 43(a) of the Lanham Act, 15 U.S.C. § 1125(a). The court found the defendant liable for infringing Playboy's registered trademarks, and violating section 43(a) of the Lanham Act. *Playboy*, 839 F. Supp. at 1561-62. This is, however, beyond the scope of this paper.
22 *Id.* at 1554.
23 17 U.S.C. § 501(a) (1988).
24 17 U.S.C. § 106 (1988).
25 *Playboy*, 839 F. Supp. at 1559.
26 *Id.* at 1556.
27 *Id.* at 1557.

ant Frena claims he did not make the copies itself.[28]

The court found Frena liable even though he personally did not create any unauthorized copies. The court's decision stemmed from the fact that the exclusive right to distribute copies to the public is independent of the right to reproduce, and it may be infringed even with respect to lawful copies.[29] Nevertheless, the exclusive right of public distribution protects only the right to make the first distribution of the work. The first sale doctrine limits the distribution right by granting the owners of lawfully made copies the right to dispose of their possession as they please.[30] Secondary distribution of lawfully made copies of a work would not constitute copyright infringement.[31] In the *Playboy* case, copies of the copyrighted photographs of the plaintiff already had been distributed to the public in plaintiff's magazine. Liability for unauthorized public distribution therefore depended upon whether unauthorized *copies* were created, and whether the defendant *distributed* the unlawfully made copies to the *public*.[32]

a. Unauthorized Copying

Were unauthorized copies created? What constitutes a "copy" on a BBS? The *Playboy* court did not address these questions.[33]

[28] *Id.* at 1556 (emphasis added).

[29] For this very reason, however, it is surprising that the court opened its discussion by stating that "[t]o establish copyright infringement, . . . [the plaintiff] must show ownership of the copyright *and 'copying' by Defendant Frena.*" *Id.* (emphasis added). The discussion of the court reveals that it did not use the term "copying" in the general sense of infringement, but in the narrow sense of reproduction. *See id.* at 1556. "Copying" in the sense of reproduction is not a necessary element in every copyright infringement, particularly in the case of infringing the right to publicly distribute the work. Infringement of this right does not involve copying, but instead the transfer of copies to the public without the authorization of the copyright owner. *See* MELVILLE B. NIMMER, 2 NIMMER ON COPYRIGHT § 8.12[A], at 8-134 to 8-135 (1994).

[30] 17 U.S.C. § 109(a) (1988) ("Notwithstanding the provisions of Section 106(3), the owner of a particular copy or phonorecord lawfully made under this title, or any person authorized by such owner, is entitled, without the authority of the copyright owner, to sell, or otherwise dispose of the possession of that copy or phonorecord."). For further discussion of the first sale doctrine see John M. Kernochan, *The Distribution Right in the United States of America: Review and Reflections*, 42 VAND. L. REV. 1407 (1989).

[31] NIMMER, *supra* note 29, § 8.12[A].

[32] *See* NIMMER, *supra* note 29, § 8.12[B][4] ("The section 109(a) immunity is applicable only if the copies or phonorecords in issue have been 'lawfully made under this title.' Therefore, if the manufacture of a copy or phonorecord constitutes an infringement of the reproduction or adaptation right, its distribution will infringe the distribution right even if this is done by the owner of such copy or phonorecord, and even if the distributor in acquiring ownership of the copy or phonorecord from an infringing manufacturer had no notice of plaintiff's copyright."); *see also* Kieselstein-Cord v. Accessories by Pearl, Inc., 489 F. Supp. 732 (S.D.N.Y.), *rev'd on other grounds*, 632 F.2d 989 (2d Cir. 1980).

[33] The court discussed, however, the question of "copying" in a different rather confusing context. The court inferred "copying" from the fact that the defendant had access to the plaintiff's photographs, and that the images found on the BBS were substantially similar, in fact "exact copies" of the photographs in Playboy Magazine. Yet, the findings of substantial similarity and access are irrelevant to the question of whether "copies" in the statutory sense were created. Furthermore, the court assumed that the defendant did not copy the photographs himself. Therefore, the fact that he himself had access to the copyrighted photographs is irrelevant to the court's analysis.

Under section 101 of the 1976 Copyright Act " '[c]opies' are material objects . . . in which a work is fixed. . . ."[34] The fixation of a work occurs "when its embodiment in a copy . . . is sufficiently permanent or stable to permit it to be perceived, reproduced, or otherwise communicated for a period of more than transitory duration."[35] The legislative history of the 1976 Copyright Act further explains that: "[T]he definition of 'fixation' would exclude from the concept purely evanescent or transient reproduction such as those projected briefly on a screen, shown electronically on television or other cathode ray tube or captured momentarily in 'memory' of a computer."[36]

The Ninth Circuit analyzed the issue of "copies" in a digitized environment in the controversial decision of *MAI Systems Corp. v. Peak Computer Inc.*.[37] The court examined whether running an operating-system, in the course of repairing computer hardware, creates an unauthorized "copy." The opinion focused on two issues: first, whether the defendant made a "copy" of the operating system;[38] and second, whether section 117 of the Copyright Act permitted such copying if it did in fact occur.[39] *MAI Systems* held that the loading of software into a computer's RAM[40] constituted a "copy" under section 101, since it can be perceived for more than a transitory duration.[41] The court supported its conclusion through the defendant's statements concerning its actions. Because the defendant claimed that its employees loaded the software into the memory to view the system error log and to diagnose problems, the court concluded that the representation created in the memory was sufficiently permanent.[42]

[34] 17 U.S.C. § 101.

[35] *Id.*

[36] H.R. REP. NO. 1476, 94th Cong., 2d Sess. 51, 54 (1976). *See also* NIMMER, *supra* note 29, § 8.02[B][2], at 8-29.

[37] 991 F.2d 511 (9th Cir. 1993).

[38] *Id.* at 517-19.

[39] 17 U.S.C. § 117 (1988).

[40] The RAM is a temporary working memory. It is dynamic and transient, and whatever is stored in it disappears when power goes off.

[41] 17 U.S.C. § 101.

[42] *MAI*, 991 F.2d at 518; *see also* Advanced Computer Serv. of Mich., Inc. v. MAI Sys. Corp., 845 F. Supp. 356 (E.D. Va. 1994) (finding that the computers in this case were turned on long enough so that the software in memory could not be considered ephemeral or transient). Subsequently, courts have found that loading software into a computer's RAM constituted copyright infringement because it created a copy fixed in a tangible medium of expression. *See generally* 47 BNA's PAT., TRADEMARK & COPYRIGHT J. 349 (1994).

The court's conclusion, namely that a "copy" made in the RAM is fixed, found no support in any legal precedent.[43] Although the court cited several authorities for its conclusion, it acknowledged that they all use the broad term "Computer Memory," which covers two distinct types of memory—RAM and ROM.[44] Whereas ROM (Read Only Memory) is a material object consisting of computer chips that store data,[45] the RAM (Random Access Memory) is a working memory. Loading a program into the RAM, in which the program is read from a fixed copy (diskette, CD-ROM, hard-disk), creates only a temporary copy of the program. One therefore can argue that loading a program into a computer's memory does not involve the preparation of a "fixed" copy, and thus does not constitute copyright infringement. Neither previous opinions[46] nor the legislative history[47] distinguished between

[43] *MAI*, 991 F.2d at 519.

[44] *Id.* ("We recognize that these authorities are somewhat troubling since they do not specify that a copy is created regardless of whether the software is loaded into the RAM, the hard disk or the read only memory (ROM)."). Among other authorities, the court cited Apple Computer, Inc. v. Formula Int'l Inc., 594 F. Supp. 617, 621 (C.D. Cal. 1984), to support its conclusion. There, the district court found that "software could be used through RAM without making a permanent copy." *Apple Computer*, 594 F. Supp. at 621. The court in *Apple* stated:

> RAM can be simply defined as a computer component in which data and computer programs can be temporarily recorded. Thus, the purchaser of [software] desiring to utilize all of the programs on the diskette could arrange to copy [the software] into RAM. *This would only be a temporary fixation. It is a property of RAM that when the computer is turned off, the copy of the program recorded in RAM is lost.*

Id. at 622 (emphasis added). This quotation from the *Apple* decision supports the opposite result, that loading a computer program into the RAM is only a "temporary fixation," and insufficiently permanent to qualify as a copy under section 101. Although the *MAI* court recognized that in *Apple* the court held that "software could be used through RAM without making a permanent copy," it did not address the sharp contradiction between its conclusions and those of the *Apple* court. *Id.*

[45] Storage in the ROM was considered by the court as "permanent." Hence it was held that owners of a ROM chip did not face any significant danger of losing the program embodied in it, and therefore did not need an archival copy of the chip. *See* Atari, Inc. v. JS & A Group, 597 F. Supp. 5 (N.D. Ill. 1983).

[46] In Vault Corp. v. Quaid Software Ltd., 655 F. Supp. 750 (E.D. La. 1987), *aff'd*, 847 F.2d 255 (5th Cir. 1988), the defendant distributed a program (RAMKEY) designed to enable the users to break through a protection program, in order to make copies of a copy-protected software. The plaintiff claimed that the defendant was liable for contributory infringement of his protection program (PROLOK). The court stated that loading a program into a computer memory constitutes copying.

In Bly v. Banbury Books, 638 F. Supp. 983 (E.D. Pa. 1986), the defendant loaded a diskette containing the plaintiff's program into a computer, and used it to print correspondence, after his license had expired. The court stated that loading the program produced an infringing copy for some period of time. However, the court concluded that merely loading the program into the memory does not justify substantial sanctions against the user.

[47] The National Commission on New Technological Uses of Copyright Works [hereinafter CONTU] concluded that inserting a program into a computer memory constitutes fixation, and therefore is considered a preparation of a copy. The CONTU report does not clarify whether this applies to loading a program into the RAM or only to other types of computer memory. NATIONAL COMMISSION ON NEW TECHNOLOGICAL USES OF COPYRIGHTED WORKS, FINAL REPORT (1978).

the different types of computer memories.

Under the *MAI* decision, however, the uploading or downloading of copyrighted images to or from a BBS constitutes reproduction, and if done without authorization consequently infringes copyright.[48] The *Playboy* court seems to use the *MAI* principles as its underlying assumption.[49]

b. Distribution

To establish liability for distributing copies to the public, a claimant must also show that the BBS operator engaged in "distribution."[50] Most generally, a BBS is an electronic database that allows users to dial in or otherwise log in and exchange messages with others. BBS users may submit a posting for all users to read, usually grouped by topics, or browse through the postings left by others. In some cases, users can download information into their computers.[51] Many BBSs offer a wide range of services such as e-mail, group and private on-line chats, on-line interactive multiplayer games, public forums, databases, newsgroups,[52] on-line shopping, and gateways to other networks.

What is the nature of the BBS operation? Does it involve "distribution to the public" in the statutory sense? Should a BBS operator be considered a distributor? What role does a BBS operator play in distributing subscribers' postings? Are BBS operators publishers or carriers of information? Are BBS operators suppliers of products or providers of services? If posting on a BBS constitutes distribution, what role does the BBS operator play in disseminating the works posted by subscribers?

[48] *See MAI*, 991 F.2d at 519.

[49] In *Sega Enterprises Ltd. v. Maphia*, 857 F. Supp. 679, 686 (N.D. Cal. 1994), the court reached a similar result. Citing *MAI* as an authority without further elaboration on this issue, the *Sega* court held that uploading and downloading information to and from a BBS constitutes copying. For a discussion of the decision in *Sega*, *see infra* note 57 and accompanying text.

[50] 17 U.S.C. § 106(3).

[51] One definition of a BBS was suggested by the court in *Sega*: "An electronic bulletin board consists of electronic storage media, such as computer memories or hard disks, which is attached to telephone lines via modem devices, and controlled by a computer." *Sega*, 857 F. Supp. at 683.

[52] Newsgroups—"One of the USENET's huge collection of topic groups or fora. Usenet groups can be unmoderated (anyone can post) or moderated (submissions are automatically directed to a moderator, who edits or filters and then posts the results). Some newsgroups have parallel mailing lists for Internet people with no netnews access, with posting to the group automatically propagated to the list and vice versa. Some moderated groups (especially those which are actually gatewayed Internet mailing lists) are distributed as digits, with groups of posting periodically collected into a single large posting with an index." THE NEW HACKER'S DICTIONARY, *supra* note 5, at 259.

The *Playboy* court did not address the above questions.[53] Without elaborating, the court portrayed the defendant's actions as supplying "a product containing unauthorized copies" of a copyrighted work."[54] Yet, it is confusing to describe the BBS operation as supplying products, simply because it is unclear what product a BBS operator supplies. The transaction between BBS operators and their subscribers does not involve any tangible products. A BBS operator provides remote access to information and information processing services in exchange for a fee. One way to interpret a BBS transaction as the supplying of goods is to analogize it to providing a "package of services." Those services include access to an electronic space for the exchange of information, and access to the means for the execution of the exchange. If, however, a BBS only creates a space for sharing information or any other service, then the BBS operator does not provide subscribers with any fixed and tangible embodiments of copyrighted works.[55] Consequently, BBS operation does not constitute distribution of copies.

Alternatively, one may characterize BBS operation as supplying each subscriber with a compilation of information that other subscribers happened to post at a given time. Such an interpretation, however, does not truly capture the nature of the BBS transaction. When a BBS user communicates information to other subscribers, the user transfers nothing tangible. The bits displayed on a BBS are not transferred to subscribers "by sale or other transfer of ownership, or by rental, lease or lending."[56] Rather a BBS provides subscribers with access and services. As such, BBS operators do not create copies, and do not transfer them in any way. Users post the copies on the BBS, which other users can then read or download.[57] The shift from distribution of copies to dissemination by access is typical of the digitized environment.[58]

The *Playboy* court did not discuss the nature of a BBS operation, nor did it define a set of services that identify a provider of access to information as a BBS operator. The court's failure to address these issues is particularly problematic given the dynamic nature of cyberspace and the common use of slang terms that subcultures of users constantly redefine. A BBS may mean different things to different people and may, in fact, involve different activities. The courts should have understood the particular acts involved in the BBS operation before reaching its conclusion.

2. Infringing the Right of Public Display

The court also found the defendant liable for infringing the plaintiff's exclusive right of public display under section 106(5) of the 1976 Copyright Act.[59] Here the court addressed the question of whether the showing of an image on a BBS constitutes a display. The statute defines "display" broadly to cover any showing of a copy of the work "either directly or by means of a film, slide, television image or any other device or process."[60] The statutory definition therefore seems to cover the showing of a work on a computer screen.

The court next examined whether posting a work on a BBS constitutes a public display.[61] An unauthorized display constitutes infringement only when it is shown to the "public."[62] The statute defines public display in two clauses of section 101. The first clause defines "public display" as a display that occurs in a public place.[63] The second clause defines a "public display" as a work transmitted "to the public by means of any device or process, whether members of the public capable of receiving the performance or display re-

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53 The court only briefly described the BBS, as follows:
> BBS is accessible via telephone modem to customers. For a fee, or to those who purchase certain products from Defendant Frena, anyone with an appropriately equipped computer can log onto BBS. Once logged on subscribers may browse though different BBS directories to look at the pictures and customers may also download the high quality computerized copies of the photographs and then store the copied image from Frena's computer onto their home computer.

Playboy, 839 F. Supp. at 1554.

54 *Id.* at 1556.

55 *See* 17 U.S.C. § 106(3).

56 *Id.*

57 The *Sega* court also perceived the BBS operation as a distribution of works. The court noted that each illegal copy of a Sega game which Maphia distributed deprived Sega of revenue. Thus, distribution was perceived as an act of satisfying a demand for the copyrighted work in the market. *See infra* notes 112-14 and accompanying text.

58 *See infra* notes 230-40 and accompanying text.

59 17 U.S.C. § 106(5).

60 17 U.S.C. § 101. The legislative history cited by the court indicates that the concept of "display" is even broader: It covers "the projection of an image on a screen or other surface by any method, the transmission of an image by electronic or other means, and the showing of an image on a cathode ray tube, or similar viewing apparatus connected with any sort of information storage and retrieval system." H.R. REP. No. 1476, 94th Cong., 2d Sess. 64 (1976), *reprinted in* 1976 U.S.C.C.A.N. 5659, 5677. "The display right precludes unauthorized transmission of the display from one place to another, for example, by a computer system." *Playboy*, 839 F.2d at 1557. *See* H.R. REP. No. 1476, 94th Cong., 2d Sess. 64 (1976), *reprinted in* 1976 U.S.C.C.A.N. 5659, 5694; JAY DRATLER, JR., INTELLECTUAL PROPERTY LAW: COMMERCIAL, CREATIVE AND INDUSTRIAL PROPERTY § 6.01[4], at 6-24 (1991). *But see* NIMMER, *supra* note 29, § 8.20[A] n.20.

61 *Playboy*, 839 F. Supp. at 1556-57.

62 17 U.S.C. § 106(5).

63 Public display means to display "at a place open to the public or at any place where a substantial number of persons outside of a normal circle of a family and its social acquaintances is gathered. . . ." 17 U.S.C. § 101.

ceive it in the same place or in separate places and at the same time or at different times."[64] Surprisingly, the *Playboy* court relied on the first clause.[65] Thus, the court perceived the BBS as a "public place."

One may consider an on-line service "public" in the sense that the public can access it. Potentially any user can post materials and browse through the materials posted on the BBS.[66] Interpreting a BBS as a "physical place," however, is questionable. The statutory definition of a "public display" explicitly distinguishes between a physical place in which people may gather or to which the public has access, and a display that becomes "public" by being communicated to the public.[67] The display on a BBS does not occur in any physical place to which the public has access. Instead, it occurs on subscribers' individual screens, in the privacy of their home or office, and at different times and places. The place of reception is the relevant place for determining where the display occurred.[68] Although it is possible for a group of people to watch the display on a computer screen together, such displays to audiences consisting of substantial numbers of persons rarely occurs. Thus, although a BBS may be accessible to the public, it is not a "place."

The second clause of the public display definition captures the BBS operation more accurately.[69] The court, however, did not discuss this clause. As stated, the second clause of section 101 defines public display as the transmission or communication of a work where the public can receive the display in the same place or in separate places, and can receive it at the same time or at different times.[70] A work is transmitted when it is communicated by a "process whereby images or sounds are received beyond the place from

64 17 U.S.C. § 101.

65 After stating that a "public display" is a display "at a place open to the public," the court held that Frena's display of the copyrighted photographs to the BBS's subscribers was a "public display." *Playboy*, 839 F. Supp. at 1557.

66 The fact that some BBSs would restrict access only to members, or affiliates, does not negate their public nature. *See Playboy*, 839 F. Supp. at 1557; *see also* NIMMER, *supra* note 29, § 8.14[C], at 8-169.

67 17 U.S.C. § 101.

68 *See* On Command Video v. Columbia Pictures Indus., 777 F. Supp. 787, 789 (N.D. Cal. 1991) ("At least for the purposes of public place analysis, a performance of a work does not occur every place a wire carrying the performance passes through; a performance occurs where it is received.").

69 Naturally, the conceptual framework of "public display" makes more sense for defining the copyright owner's monopoly in the context of BBS. After all, the mechanism of distributing copies for collecting royalties evolved hand in hand, with the print technology. The exclusive rights to publicly display and publicly perform, which the Copyright Act of 1976 first conferred on copyright owners, sought to address newer technologies. *See* NIMMER, *supra* note 29, § 8.20[A], at 8-274.

70 17 U.S.C. § 101.

which they are sent."[71]

The second clause allows the copyright owner to control the display of her work to single viewers at different times.[72] It makes "public" any display that creates a public experience. The work becomes public when the public shares in it. Sharing occurs either by displaying the work in a "public place," or by allowing members of the public to experience it individually at home at their convenience. A television broadcast, for instance, makes information available to the public, even though each member of the public may receive the information in private. On-line services, like broadcasters, facilitate the sharing of information with the public, although the actual exposure to the information may take place in the privacy of one's home.

Digitization's interactive capacity allows each user's experience to be different. Some information on a BBS is not merely transmitted, but may often be modified and customized as a result of interaction with users. Users can retrieve a limited selection of the information posted on a BBS. Since different users are likely to choose different combinations of materials, each user's experience and the output they would download will likely be different.[73] The interactive nature of a BBS allows subscribers to choose what they wish to see.[74] Furthermore, whereas non-digital media, such as printed text, film, and sound recording carry only a single form of the work,[75] digital representation allows users to manipulate any information they receive. Users may, for instance, incorporate in-

71 *Id.*

72 *See* H.R. REP. No. 83, 90th Cong., 1st Sess. 29 (1967).

> [A] performance made available by transmission to the public at large is 'public' even though the recipients are not gathered in a single place, and even if there is no direct proof that any of the potential recipients was operating his receiving apparatus at the time of the transmission. The same principles apply whenever the potential recipients of the transmission represent a limited segment of the public, such as the occupants of hotel rooms . . . . [T]hey are also applicable where the transmission is capable of reaching different recipients at different times, as in the case of sounds or images stored in an information system and capable of being performed or displayed at the initiative of individual members of the public.

Id.; *see also* H.R. REP. No. 1476, 94th Cong., 2d Sess. 64-65 (1976).

73 Consider, for instance, two different users researching the same legal problem on Lexis.® The two users may access different files, using different key words. Even if they view the same cases using the KWIC™ command and download only segments of their research, they may create two distinct cite compilations. This is typical of digital media, and has to do with the non-linearity of the media.

74 The ability of individuals to choose their cultural experiences allows individuals to express themselves through the consumption of commodities that are adapted to their agenda. *See* Coombe, *infra* note 28, at 1863 ("[T]he consumption of commodified representational forms is a productive activity in which people engage in meaning-making to adapt signs, texts, and images to their own agendas.").

75 POOL, *supra* note 1, at 50.

formation retrieved from the BBS in a new message that they post. Users may exercise their personal preferences by selecting information, and integrating several works together into a single presentation. Users may experience BBSs not only at different times and places, but also in different formats.[76] In sum, broadcasting as public display or performance involves the communication of a single message to members of the public most likely experienced in private surroundings. To allow the notion of "public display" to encompass a display that can be received in private and manipulated—as in the case of a BBS operation—further stretches the prior understanding of this concept.

The decentralized nature of information dissemination raises another problem when applying the definition of "public display" under the second clause. Users may play an active role in the transmission of information. In many cases users retrieve information as opposed to the system transmitting it. This may have tremendous implications under the transmission clause. Liability under § 106(5) requires actively transmitting the copyrighted work. Consequently, liability would differ depending on the distribution method, whether the BBS operator sends the information or the subscribers retrieve it.[77] BBS operators arguably merely provide subscribers with access to a BBS server and allow them to display the information posted on the BBS on their screens.[78] Does providing access constitute transmission? Who is considered a transmitter—the one who executed or initiated the transmission? Considering that in many cases a program exclusively executes the transmission, who should be considered the transmitter? The

[76] This also has a political significance. By making users more active, BBSs converge writing and reading and transfer meaning making power from authors to readers. Meaning becomes polycentric. Interactivity may break the monopolistic stranglehold of the mass media. This monopoly is maintained by separating consumers from producers, and making viewers into passive receivers. Interactivity allows the audience to participate in choice and makes receivers potential transmitters. *See* Peter Jukes, *The Work of Art in the Domain of Digital Production*, NEW STATESMAN & SOC'Y, July 17, 1992, at 40.

[77] For instance, when a file is located in a FTP site, users initiate the procedures and retrieve it. This may release the site administrator from liability for a "public display." On the other hand it is arguable that since transmission on a public FTP was facilitated by the site administrator, she should be liable for its use.

[78] *See, e.g.*, Loftus E. Becker, Jr., *The Liability of Computer Bulletin Board Operators for Defamation Posted by Others*, 22 CONN. L. REV. 203, 211 (1989) (arguing that computer bulletin boards are public areas on an electronic network where users may post messages, and anyone with access to that area of the network may read them); *see* WATTERS, *supra* note 5; for a slightly different definition, see DONALD SPENCER, WEBSTER NEW WORLD DICTIONARY OF COMPUTER TERMS (1992) ("BBS—a service that permits individuals who have personal computers *to communicate with others* who have similar interests. Individuals who subscribe to the service can *retrieve information from a common database.*").

owner of the program? Its administrator? The owner of the computer on which the program ran?

The *Playboy* court did not examine the actual operation of the BBS and therefore failed to address these questions. Making any display of information retrieved from a remote site a "public display," would expand the current monopoly held by copyright owners. It would allow owners to control access to their works, a right they do not have under current copyright law.

The legal framework of public display assumes a centralized structure of distribution to the public. It seeks to prevent a single source from displaying a work to a large number of people. In a digitized environment, roles may shift between distributors and users. The distinction between display and retrieval is blurred. The same facility may simultaneously allow information to be "broadcast" to an immeasurable number of users, "narrowcast" to a selective group, or individually retrieved by single users. Basing copyright outcomes on the dissemination technique creates a superficial distinction between very similar communication methods utilized by on-line services.[79]

Video transmission demonstrates this superficial distinction. In *On Command Video Corp. v. Columbia Pictures*[80] and *Columbia Pictures Indus. v. Professional Real Estate Investors*,[81] the court for the Northern District of California and the Ninth Circuit addressed the issue of whether performing movies in hotel guest rooms constitutes a public performance under the Copyright Act. The cases' contradictory outcomes are difficult to reconcile. Both cases involved facilitating video-tape viewing by hotel guests in the privacy of their hotel rooms. The only factual difference between the cases was the technical method the hotel used to present the videos to the guest rooms. While in *On Command Video* the video cassette players (VCP) and a controlling program were located centrally in a hotel equipment room,[82] in *Professional Real Estate Investors* each

[79] This technology based distinction creates substantial problems when adjusting copyright law to a digitized context. Copyright law does not allow copyright owners to prevent any use of their works. Quite the opposite. Copyright law's purpose is to maximize public use of information, while securing appropriate levels of incentives for creators by protecting their rights in the marketplace. Therefore, the copyright law grants rights to owners primarily against commercial competitors, and only rarely deals with individual uses. Digitized communication allow users, acting separately to create the same affect as commercial competitors. In this context, however, there is a whole new set of authors' and users' interests to be balanced. This requires reexamination of the copyright framework. For further discussion *see infra* notes 200-79 and accompanying text.

[80] 777 F. Supp. 787 (N.D. Cal. 1991).

[81] 866 F.2d 278 (9th Cir. 1989), *rev'd on other grounds*, 113 S. Ct. 1920 (1993).

[82] 777 F. Supp. at 788.

VCP was located in each room.[83] The consequences for the copyright owners were the same—several guests were able to watch the movie without paying royalties for each performance. Nevertheless, the outcomes of the cases were different. In *Professional Real Estate Investors* the court found that no public performance occurred, since the hotel guest rooms in which the movies were performed were not "public places" for the purposes of the Copyright Act.[84] In *On Command Video,* the court found the hotel liable for copyright infringement under the transmission clause.[85] Under these decisions, in order to escape liability for public performance or public display a provider of programming access may be driven to avoid any form of electronic transmission and use of alternative methods of distribution such as CD-ROMs.[86] These alternative distribution methods are not necessarily the most efficient means of dissemination. In fact, network dissemination may have major economic and political advantages over physical distribution.[87] The liability rule established by *On Command Video* may therefore fail to serve public policy.

Establishing copyright liability on technical distinctions between systems that have the same function, creates an unsound basis for administering rights in a digitized context. A technology based legal framework, for instance, may induce the use of techniques which are based on mail retrieval. Mail retrieval techniques may not be the most efficient dissemination method, and copyright owners' expected loss from any dissemination method allowing access to their works will likely be the same.

B. Sega Enterprises Ltd. v. Maphia

In *Sega Enterprises Ltd. v. Maphia,*[88] as in *Playboy,* a court found a BBS operator liable for infringing materials posted by its subscribers. The plaintiff, Sega Enterprises Ltd., a manufacturer and a

83 866 F.2d at 279.

84 *Id.* at 280.

85 777 F. Supp. at 790.

86 Under *On Command Video* a performance of a work, for the purpose of public place analysis, occurs only where it is received. *Id.* at 789. Public performance under the transmission clause, however, covers any communication to the public of images or sounds that are received beyond the place from which they were sent. 17 U.S.C. § 101. Thus, the analysis of the court focused on the method of distributing the information. Information received in private, may be either a "public display" or a "private display" depending on whether it was transmitted to the public or otherwise received on a physical media. Distribution on physical media, may, of course, constitute infringement of the public distribution rights under 17 U.S.C. § 106(3).

87 *See infra* notes 293-302 and accompanying text.

88 857 F. Supp. 679 (N.D. Cal. 1994).

distributor of computer game systems,[89] sued a BBS operator for unauthorized uploading and downloading of its game software by BBS subscribers.[90] Yet, the *Sega* court adopted a different approach to the question of liability. The *Sega* court focused on the defendants' liability for contributory infringement.[91] This article will argue that contributory infringement is more appropriate for dealing with BBS liability, first, because it focuses attention on the BBS-users relationship and the way imposing liability on BBS operators may shape this relationship, and second because it better addresses the complexity of the relationships between BBS operators and subscribers.

In *Sega,* the court held that BBS users made unauthorized copies of the plaintiff's video games whenever they uploaded or downloaded the game software.[92] Even though the BBS subscribers performed the uploading and downloading, the *Sega* court based its decision both on a theory of direct infringement and on a theory of contributory infringement.

First, the court found a prima facie case of direct copyright infringement for unauthorized copying of computer programs.[93] The court did not explain this result, and the court's basis for this holding remains unclear. The factual findings suggest several possible grounds for direct infringement. One is infringement by authorization. Section 106 of the Copyright Act provides the copyright owner with the exclusive right not only to exercise, but also to authorize the exercise of any of her statutory exclusive rights.[94] Consequently, authorizing an infringing use of a copyrighted work, such as unauthorized copying, may constitute direct infringement.[95] The court, however, did not discuss the issue of

89 The game system consists of a game console (base unit) and programs stored on game cartridges. The game program on the cartridge is executed by the microcomputer in the console when connected to a television. *Id.* at 683.

90 *Id.*

91 *Id.* at 686. As in *Playboy,* however, the *Sega* court also found the BBS operator liable for direct infringement. *Id.*

92 *Id.* at 689.

93 *Id.*

94 17 U.S.C. § 106 (Subject to sections 107 through 120, the owner of copyright under this title has the exclusive rights to do and to authorize any of the following . . . .").

95 The court did not explicitly discuss the issue of authorization. The only acts attributed to the BBS operator in the court's opinion were "knowledge of the unauthorized copies being uploaded to the BBS by unknown users and facilitating and encouraging copying by users." *Sega,* 857 F. Supp. at 686. What amounts to an authorization to infringe? Does knowledge of copyright infringement convey authorization? Does "facilitating and encouraging" copying amount to "authorization"? Is a positive permission to infringe necessary? Is it enough to show that the BBS operator failed to prevent the infringing acts? What is the level of care required from BBS operators regarding the content posted on the BBS? The court did not address these questions.

"authorization" and its role in the case. Another possible ground for the court's finding of direct infringement is the operation of the BBS itself. In the course of its operation a BBS creates numerous copies of the information posted on it. Thus, whenever a game is stored on the BBS or retrieved from it, the BBS server creates a copy. Thus, by operating the BBS the defendant arguably creates infringing copies of the copyrighted games that are posted on it.[96]

Second, the court found a prima facie case of contributory infringement in the defendants' advertising, sale and distribution of video game copiers, for transferring game software from Sega video game cartridges to disks.[97] This holding raises some interesting questions regarding the liability of manufactures of accessories for copyright infringements by their users.[98] Nevertheless, the distribution of copying devices is not part of BBSs' operation, and is therefore beyond the scope of this article.

Finally, the court held the defendant liable as a contributory infringer for the unauthorized copying of the games by its users, due to its role in the copying, provision of facilities, direction, knowledge, and encouragement of the illicit activity.[99] The doctrine of contributory infringement imposes liability on whoever causes or permits another to engage in an infringing act.[100] Liability under this doctrine depends on establishing two components. First, the plaintiff must establish copyright infringement by the primary infringer.[101] To be liable as a contributory infringer, the primary infringers' behavior itself must constitute infringement. The liability of a BBS operator therefore depends on the court's view of the permissible usages of copyrighted works on an on-line service. Second, a plaintiff must show the circumstances, such as a relationship, that give rise to liability of third parties.[102] The next sections examine the court's analysis of these two aspects of contributory infringement.

1. Infringement by Subscribers and Fair Use

a. The Analysis of the Court

Does uploading or downloading of video games by subscribers constitute copyright infringement?[103] The *Sega* court held that it does.[104] Relying on *MAI Systems Corp. v. Peak Computer Inc.*,[105] the court held that uploading and downloading of games from the BBS constitutes unauthorized copying by the BBS users.[106] Are those actions excusable under the fair use doctrine?[107]

The fair use defense reflects the basic goal of copyright law as it balances the individual's claim to her work against the public's right to make the most beneficial use of the work.[108] The defense

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96 MAI Syst. Corp. v. Peak Computer Inc., 991 F.2d at 518. Under *MAI* an unauthorized copy of a computer program is created in the computer's RAM every time the program is executed. For a critical discussion of *MAI*, see *supra* notes 37-44 and accompanying text. This was also the rationale for imposing liability on defendant in *Playboy*. *See supra* notes 21-35 and accompanying text.

97 *Sega*, 857 F. Supp. at 687.

98 It is arguable that the distribution of copiers may provide BBS subscribers with the means of copying, including unauthorized copying. In *Cable/Home Communication Corp. v. Network Prod., Inc.*, 902 F.2d 829 (11th Cir. 1990), the court found contributory infringement in the distribution of descrambling chips that allowed users to receive copyrighted broadcast without further payment or authorization. In *Telerate Sys., Inc. v. Caro*, 689 F. Supp. 221 (S.D.N.Y. 1988), the court found contributory infringement in the distribution of a program that enabled users to access an electronic data base through a personal computer and to copy and analyze the information thus received. The infringing program provided a substitute for using the original equipment distributed with the data base.

99 *Sega*, 857 F. Supp. at 687. Copyright infringement is also a tort, and is therefore subject to tort law doctrines. It has been argued, however, that in the absence of explicit statutory arrangement of the sort enacted in subsections 271(b) and (c) of the Patent Act, which imposes liability on anyone who "actively induces infringement of a patent," there is no basis for imposing liability for contributory infringement. Thus, it has been suggested that the phrase "to authorize" in section 106 of the 1976 Copyright Act introduces into the copyright act liability for contributory infringement. *See* Sony Corp. v. Universal City Studios, 464 U.S. 417, 435 (1984) (making reference to 35 U.S.C. § 271 (b), (c) (1982)). Yet, authorizing the use of a copyrighted work, without the permission of the copyright owner, constitutes direct infringement. Consequently, as noted by the Supreme Court in *Sony*, "the lines between direct infringement, contributory infringement and vicarious liability are not clearly drawn." *Id.* at 435.

100 *See* NIMMER, *supra* note 29, § 12.04[A], at 12-67. Another ground of liability is under the doctrine of vicarious liability. Liability under this doctrine is established "[w]hen the right and ability to supervise coalesce with an obvious and direct financial interest in the exploitation of copyrighted materials . . . ." Shapiro, Bernstein & Co. v. H.L. Green Co., 316 F.2d 304, 307 (2d Cir. 1963). Under those circumstances, lack of intent or knowledge of the actual infringement is not a defense.

101 Lewis Galoob Toys, Inc. v. Nintendo of Am., Inc., 964 F.2d 965, 970 (9th Cir. 1992) *cert. denied*, 113 S. Ct. 1582 (1993) ("[A] party cannot authorize another party to infringe a copyright unless the authorized conduct would itself be unlawful.").

102 *Sony*, 464 U.S. at 434 ("To prevail [the plaintiffs] have the burden of proving that users of the Betamax have infringed their copyrights and that Sony should be held responsible for that infringement.").

103 In the previous sections, I discussed the status of posting on BBSs under copyright law, and looked at the potential liability of BBS operators for unauthorized posting of copyrighted materials. This section focuses on the liability of subscribers for unauthorized posting. Is there a difference between posting by a BBS operator and posting by subscribers?

104 Sega Enters. Ltd. v. Maphia, 857 F. Supp. at 686 ("These copied games are thereby placed on the storage media of the electronic bulletin board by unknown users. . . . Sega has established that unauthorized copies of these games are also made when they are downloaded to make additional copiers by users, which copying is facilitated and encouraged by the MAPHIA bulletin board.").

105 991 F.2d at 519.

106 *Sega*, 857 F. Supp. at 686.

107 17 U.S.C. § 107 (1988). *See infra* notes 115-151 and accompanying text.

108 *See* PAUL GOLDSTEIN, COPYRIGHT, PRINCIPLES, LAW AND PRACTICE, § 10.1 at 190 (Little Brown & Co. 1989) (citing THE FEDERALIST NO. 43 at 267 (H. Lodge ed. 1988)) ("Section 107 and its decisional and legislative history leave no doubt that the object of the fair use defense is to confirm, not contradict, copyright law's basic goal—to put copyrighted works to their most beneficial use so that "the public good fully coincides . . . with the claim of individuals.").

thus excuses an otherwise infringing use if the social benefit outweighs the loss to the copyright owner.[109]

The *Sega* court applied the fair use doctrine, but did not do so in the context of the user's actions.[110] Rather, the court applied the four factors enumerated in section 107, and examined whether the actions taken by the defendant BBS operator constituted fair use.[111] The first factor relates to the nature of the use to determine whether an underlying commercial purpose exists.[112] The *Sega* court found that copying saved users the expenses of purchasing the original games. This constituted a commercial purpose and weighed against a finding of fair use.[113] For in this instance, both defendant and its subscribers profited from not having to buy video game cartridges from Sega.[114]

The commercial purpose of the use closely relates to the fourth fair use factor, "the effect of the use upon the potential market for or value of the copyrighted work."[115] Under this factor, the court questions whether the defendant's actions would result in a substantially adverse impact on the potential market for the plaintiff's work.[116] The *Sega* court held that widespread copying of

109 *Id.*

110 *Sega*, 857 F. Supp. at 687.

111 *Id.*

112 17 U.S.C. § 107(1) ("the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes").

113 *Sega*, 857 F. Supp. at 687. Several courts held that a commercial use of a copyrighted work is presumptively unfair and would therefore tend to cut against a fair use defense. Harper & Row, Publishers, Inc., 471 U.S. 562, (quoting Sony Corp. v. Universal City Studios, Inc., 464 U.S. 417, 451 (1984)); Triangle Publications, Inc. v. Knight-Ridder Newspapers, Inc., 626 F.2d 1171, 1175 (5th Cir. 1980). Recently, however, this presumption was overruled by the Supreme Court. *See* Campbell v. Acuff-Rose Music, Inc., 114 S. Ct. 1164, 1174 (1994) ("If, indeed, commerciality carried presumptive force against a finding of fairness, the presumption would swallow nearly all of the illustrative uses listed in the preamble paragraph of § 107, including news reporting, comment, criticism, teaching, scholarship, and research, since these activities are generally conducted for profit in this country.").

114 The court rejected Maphia's contention that it has not profited from the distribution of Sega's programs. For a discussion of the direct and indirect profits of the defendant from the uploading and downloading of games see *infra* notes 140-142 and accompanying text.

115 17 U.S.C. § 107(4). In *Campbell*, 114 S. Ct. 1164, 1174 (1994), the Supreme Court held that market harm for purposes of the fourth § 107 factor should not be established by a presumption attaching to commercial uses.

See also Cable/Home Comm., 902 F.2d at 844 (Implicit in the presumption that every commercial use is presumptively unfair is "some meaningful likelihood that future market harm exists.").

116 *See* NIMMER, *supra* note 29, § 13.05[A], at 13.102.61-62. In *Telerate Systems, Inc. v. Caro*, 689 F. Supp. 221, 228 (S.D.N.Y. 1988), the court found contributory infringement in the distribution of a program that enabled users to access an electronic data base through a PC, and to copy and analyze the information thus received. *Telerate* is distinguishable from *Sony* and *Lewis Galoob* since the infringing program provided a substitute for using the original equipment distributed along with the data base. Neither in *Sony* and *Lewis Galoob*, nor in *Playboy* and *Sega* was that the case.

Sega's video games could have a substantial and immeasurable adverse effect on the market for Sega's copyrighted video game programs.[117]

The *Sega* court also discussed the second factor of the test, a more tangential factor, relating to the nature of the copyrighted work.[118] The court noted that in the case of works of fantasy and entertainment the fair use defense has a narrower application.[119] Because the games fell under the category of fantasy and entertainment, the court did not strain itself to apply the test in a liberal manner. Irrespective of the court's discussion concerning the second factor, its application of the third factor sealed the defendant's fate against a finding of fair use. This factor relates to the "amount and substantiality of the portion used in relation to the copyrighted work as a whole."[120] In *Sega* the games were copied in their entirety, and therefore did not support the finding of fair use.[121] Consequently, the court concluded that the defendants failed to satisfy the fair use test, thus rendering the infringing use inexcusable.

b. The Proper Focus of Fair Use

The *Sega* court failed to consider whether the allegedly infringing actions, namely those committed by the BBS users, may be excused under fair use doctrine. The proper focus of the court's analysis of the fair use defense should have been the circumstances of the alleged infringement.[122] Since the BBS users committed the allegedly infringing acts to which the contributory liability of the BBS operator attached, the *Sega* court should have focused its fair use analysis on the users and not on the operator.[123] Such an anal-

117 *Sega*, 857 F. Supp. at 684. *See also Playboy*, 839 F. Supp. at 1558 ("Obviously, if this type of conduct became widespread, it would adversely affect the potential market for the copyrighted work. Such conduct would deny PEI considerable revenue to which it is entitled for the service it provides.").

118 17 U.S.C. § 107(2)

119 "Copyright protection is narrower, and the corresponding application of fair use defense greater, in the case of factual works than in the case of works of fiction or fantasy." *Playboy*, 839 F. Supp. at 1558 (quoting MELVILLE B. NIMMER, NIMMER ON COPYRIGHT § 13.05[A], at 13-102.57 (1993)). Works of entertainment are less likely to be protected under fair use doctrine. *See* New Era Publications Int'l, ApS v. Carol Pub. Group, 904 F.2d 152 (2d Cir.), *cert. denied*, 498 U.S. 921 (1990).

120 17 U.S.C. § 107(3).

121 In *Playboy*, the court used a qualitative test, according to which "a small degree of taking is sufficient to transgress fair use if the copying is the essential part of the copyrighted work." Consequently, the court found that by copying the photographs, which play a major role in Playboy Magazine's success, the defendant took a significant part of Playboy's copyrighted publications. *Playboy*, 839 F. Supp. at 1558.

122 *See infra* notes 137-38 and accompanying text.

123 This was not a problem in *Playboy* since the court found the BBS operator liable for direct copyright infringement. The court held the defendant liable for distributing in-

ysis is consistent with the Supreme Court decision in *Sony Corp. of America v. Universal Studios, Inc.*[124] Here the Supreme Court examined allegations against Sony, the manufacturer and distributor of VCR systems. The plaintiffs argued that the viewers' use of those systems allowed them to unlawfully copy broadcasted programs.[125] The Court held that VCR systems allow consumers to copy broadcast programs for the purpose of time shifting, which is considered a fair use.[126] Consequently, the Court found the systems capable of non-infringing use, and the defendant faced no liability for contributory infringement.[127] In *Sony*, the Court did not examine the nature of the defendant's activities, but instead the nature of the use of the defendant's equipment.[128] The fact that *Sony* distributed the Betamax for profit and encouraged copying as part of their campaign bore no relevance whatsoever.

In another case *Lewis Galoob Toys, Inc. v. Nintendo of America, Inc.*,[129] Nintendo sued a distributor of a "Game Genie" that allegedly infringed its copyright in the audio-display of its games by allowing players to alter the display.[130] The parties disputed the proper focus of fair use analysis. The defendant claimed that the analysis should focus on the consumers who purchase and use the Game Genie.[131] The plaintiff, in contrast, argued that the court must focus on the defendant's use.[132] The court held that since the plaintiff based its complaint on contributory infringement, then fair use analysis must focus on the use by the defendant's consumers.[133] The court further noted that even if the case was based on infringement by authorization, this would not have changed the result.[134] Therefore, the court concluded, even assuming the use

fringing materials, and not for contributory infringement. Therefore, the relevant subject for the fair use analysis in *Playboy* was indeed the defendant's actions. *Playboy*, 839 F. Supp. at 1555-59.

124 464 U.S. 417 (1984).

125 *Id.*

126 *Id.* at 456.

127 *Id.*

128 *Id.*

129 780 F. Supp. 1283 (N.D. Cal. 1991), *aff'd*, 964 F.2d 965 (9th Cir.), *cert. denied*, 113 S. Ct. 1582 (1993).

130 *Id.* at 967. The court held that the "Game Genie" merely enhanced the audiovisual display, but since it did not replace, duplicate, or recast it in any way it did not infringe Nintendo's copyright. *Id.* at 969.

131 *Id.* at 970.

132 *Id.*

133 *See id.* at 970 ("Contributory infringement is a form of third party liability. *See* MELVILLE B. NIMMER & DAVID NIMMER, 3 NIMMER ON COPYRIGHT § 12.04[A]2, at 12-72 (1991). The district court properly focused on whether consumers who purchase and use the Game Genie would be infringing Nintendo's copyrights by creating (what are now assumed to be) derivative works.").

134 *Galoob*, 964 F.2d at 970 ("Although infringement by authorization is a form of direct

of the Game Genie by users constituted infringement, fair use doctrine would excuse the activity due to its non-profit nature.[135]

Insofar as the *Sega* court found the defendant liable for contributory infringement, the BBS operator's liability was secondary to the primary liability of the users.[136] The *Sega* court should therefore have employed the *Lewis Galoob Toys* fair use analysis, and limited any finding of liability to the extent that the use of the subscribers was infringing.

c. Fair Use Applied to Users

Should uploading and downloading of game software by BBS users be considered fair use? Shifting the focus of fair use analysis from the BBS operator to its users may affect the first factor of the test: the non-commercial purpose of the use. If uploading and downloading of games by users represents a non-commercial purpose, then this character of the use supports a finding of fair use.[137] The *Sega* court found, however, that the subscribers' use had a commercial purpose and character. The subscribers profited from not having to buy video game cartridges from *Sega*.[138] This interpretation of "for profit" covers any conceivable use of a copyrighted work not licensed for fee. As such, this interpretation is too broad. It renders the fair use defense unavailable in all cases.

Another factor upon which shifting the focus of fair use analy-

infringement, this does not change the proper focus of our inquiry; a party cannot authorize another party to infringe a copyright unless the authorized conduct would itself be unlawful.").

135 *Id.* Following the reasoning in *Sony*, the court focused on the nature of use by the alleged infringers, namely, non-commercial use by game players (primarily children) in the privacy of their homes. ("Game Genie users are engaged in a non-profit activity. Their use of the Game Genie to create derivative works therefore is presumptively fair."); *see also Sony*, 464 U.S. at 449.

136 *Sega*, 857 F. Supp. at 687.

137 The *Sony* presumption that a commercial use of a copyrighted work is unfair was recently overruled by the Supreme Court in *Campbell v. Acuff-Rose Music, Inc.*, 114 S. Ct. 1164 (1994). The Court, however, discussed the presumption regarding commercial use, and did not overrule the presumption held by the lower courts that non-profit activity is presumptively fair use. In any event, a non-commercial use would be one of the factors supporting the finding of fair use under 17 U.S.C. § 107(1).

138 *Sega*, 857 F. Supp. at 687 ("When copying is for the purpose of making multiple copies of the original, and thereby saving users the expense of purchasing additional authorized copies, this militates against a finding of fair use under the purpose of the use factor."). The contrary conclusion is implied however, in the court's opinion in *Playboy*. "BBS was provided to those paying twenty-five dollars ($25) per month or to those who purchased products from Defendant Frena. One who distributes copyrighted material for profit is engaged in a commercial use *even if the customers supplied with such material themselves use it for personal use." Playboy*, 839 F. Supp. at 1558 (emphasis added); *see also Galoob*, 964 F.2d at 965 (In rejecting Nintendo's claim that Game Genie users are supplanting its commercially valuable right to make and sell derivative works, the court found the consumer's use to be non-commercial and non-profit activity.).

sis to users may have an impact, relates to the effect of unauthorized copying on the potential market for the game cartridge. When a court focuses fair use analysis on a BBS operator, the court must balance the rights of two centralized commercial entities that directly compete with one another. In contrast, when the individual subscribers commit the infringing use for noncommercial purposes, it provokes a different set of considerations.

Under *Sony*, in the case of a noncommercial use a plaintiff must show "either that the particular use is harmful, or that if it should become widespread, it would adversely affect the potential market for the copyrighted work."[139] The *Sega* court applied this criterion as it held that widespread copying of Sega's video games could have "a substantial and immeasurable adverse effect on the market for Sega's copyrighted video game programs."[140] The *Sony* standard for examining the potential harm to the plaintiff's market in noncommercial use scenarios allows the court to consider the potential harm in an activity that is not harmful in itself. This may be particularly relevant to cases where the use is noncommercial and decentralized.[141] An individual subscriber who uploads or downloads any particular video game from a BBS may not create any significant threat to the video game market. The prospects, however, that widespread copying might result may constitute an adverse effect on the potential market of the copyright owner.

The shift of focus of fair use analysis from the acts of the BBS operator to the acts of individual subscribers highlights some of the considerations unique to digitized dissemination. The ability of individual users, to cause a substantial commercial harm to copyright owners through sporadic non-commercial use is typical of the digitized environment.[142] Users play an active role in both the dissemination and retrieval of information.[143] Individual users originate information on a BBS, which other users continuously update, revise, and reuse. Users can share information in high quantity with a large number of people. They are not competing with the copyright owner in the marketplace, and in most cases they do not receive any financial advantage from posting information on a BBS. Users maximize their utility by using information in a new environment.[144] The exchange of information in a digitized form becomes the most efficient way of sharing and communicating information.[145]

Fair use analysis, which focuses on the loss to copyright owners, fails to address the decentralization of the information flow and the increasingly active role of users. BBS users are able to originate information, both original and proprietary, and thus expand their ability to use it. This may empower users, and thus have socially desirable consequences.[146] Fair use analysis should consider the public interest in making the most beneficial use of information.[147] Furthermore, it should promote public access to means of distribution not only as passive recipients but also as originators.[148]

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139 *Sony*, 464 U.S. at 451. The Court further held that:

> Actual present harm need not be shown; such a requirement would leave the copyright holder with no defense against predictable damage. Nor is it necessary to show with certainty that future harm will result. What is necessary is a showing by a preponderance of the evidence that some meaningful likelihood of future harm exists.

Id. In *Campbell v. Acuff-Rose*, the Court restricted this presumption to cases of mere duplication as opposed to transformative use. "No 'presumption' or inference of market harm that might find support in *Sony* is applicable to a case involving something beyond mere duplication for commercial purposes." *Campbell*, 114 S. Ct. at 1177.

140 *See Sega*, 857 F. Supp. at 686.

141 Goldstein explains this standard from an economic perspective: "When, as in Sony, the use is noncommercial and decentralized, the presumed absence of harm will often be warranted, since the relatively low degree of harm to plaintiff, taken together with high detection and negotiation costs, will characteristically prevent a market from forming. Where, by contrast, the defendant's use is commercial and relatively centralized, likelihood of future harm can properly be presumed." *See* GOLDSTEIN, *supra* note 108, § 10.2.2.

142 For instance, the ability of individual users to threaten the market for CDs by producing perfect copies of recorded music by using DAT (Digital Audio Tape) led to the enactment of the Audio Home Recording Act of 1992. PUB. L. NO. 102-563, § 1, 106 STAT. 4248 (1992).

143 The potentially interactive nature of use of digitized works may also support a finding of fair use. Thus, in *Acuff-Rose* the Supreme Court held that the central purpose of fair use analysis is to allow transformative uses of works, namely, a use which supplants the original, adds something new, or alters the first with new expression, meaning, or message.

> Although such transformative use is not absolutely necessary for a finding of fair use . . . the goal of copyright, to promote science and the arts, is generally furthered by the creation of transformative works. Such works thus lie at the heart of the fair use doctrine's guarantee of breathing space within the confines of copyright . . . and the more transformative the new work, the less will be the significance of other factors, like commercialism, that may weigh against a finding of fair use.

Campbell, 114 S. Ct. at 1171.

144 For instance, sharing a photo or a story with others enables users to engage in a social interaction around cultural products. It may be equivalent to attending a discussion group in which participants exchange views on a certain topic.

145 It makes text very easy to access, locate and connect to other resources, it therefore gradually replaces other forms. *See* LANDOW, *supra* note 1, at 188. In fact, Landow argues, "gaining access to a network permits a text to exist as a text in this new information world." *Id.* For the view that digital electronic medium will eventually replace current forms of distribution altogether, see Lauren H. Seiler, *The Concept of Book in the Age of the Digital Electronic Medium*, LIBRARY SOFTWARE REV., Jan. 1992, at 19.

146 *See infra* notes 295-302 and accompanying text.

147 *See* GOLDSTEIN, *supra* note 108, at 190.

148 *See* Sega Enters. Ltd. v. Accolade, Inc., 977 F.2d 1510 (9th Cir. 1992) (disassembly of copyrighted object code is a fair use). The court held that "the immediate effect of our copyright law is to secure a fair return for an 'author's' creative labor. But the ultimate aim is, by this incentive, to stimulate artistic creativity for the general public good." *Id.* at 1527 (quoting *Sony*, 464 U.S. at 432).

2. Contributory Liability

a. Grounds of Liability

Assuming that the uploading or downloading of video games by subscribers constitutes copyright infringement, a plaintiff still must show the circumstances that make the BBS operator liable for those acts.[149] The doctrine of contributory infringement imposes liability on one who causes or permits another to engage in an infringing act.[150] Under this doctrine one may be liable for copyright infringements committed by others, if with knowledge of the infringing activity he "induces, causes or materially contributes to the infringing conduct of another."[151] Contributory infringement may take the form of personal conduct that furthers or participates in the infringement. It may also take the form of machinery infringement that provides the physical means to execute the infringing act.[152]

The *Sega* court held that the defendant's role in the copying, "including provision of facilities, direction, knowledge and encouragement,"[153] constituted contributory copyright infringement. The court did not discuss explicitly which actions of the BBS operator provided the "facilities, direction, knowledge, and encouragement" for the infringing copying. Hence, one may only speculate as to the court's position based on its finding of facts.

The court's findings suggest that the BBS operator facilitated the users' infringing actions by providing them with an electronic storage media controlled by a computer.[154] This linkage, accomplished via modem, allowed users to transfer copyrighted video games from their own computers. Thereupon, users either could "upload" the games and record them on the storage media, or "download" the games from the storage media and record them on their own computer memories. This arrangement, the court concluded, allowed users "to make and distribute one or more copies of Sega video game programs from a single copy of a Sega video game program, and thereby obtain unauthorized copies of Sega's copyrighted video game programs."[155] Although a BBS as a communication facility arguably provides users with the means for

149 *Sony*, 464 U.S at 434.
150 *See supra* notes 103-05 and accompanying text.
151 *See Sega*, 857 F. Supp. at 686 (quoting Casella v. Morris, 820 F.2d 362, 365 (11th Cir. 1987)).
152 *See* NIMMER, *supra* note 29, § 12.04[A], at 12-72.
153 *Sega*, 857 F. Supp. at 687.
154 *Id.* at 683.
155 *Id.* at 684.

copying information,[156] nothing in the BBS operation itself facilitates the infringement. The infringing nature of this "uploading" and "downloading" activity stems from the fact that some information on the BBS might be copyrighted material, and may not be licensed for certain uses. Imposing liability upon BBS operators for merely providing the facility on which copyright infringement may take place establishes an extensive liability rule.

Such a liability rule would be inconsistent with the case law as well. In *Sony*, the Supreme Court held that "the sale of copying equipment, like the sale of other articles of commerce, does not constitute contributory infringement if the product is widely used for legitimate, unobjectionable purposes. Indeed, it need merely be capable of substantial non-infringing uses."[157] The Court framed the main issue as balancing the interests of the copyright holder against the rights of others to freely engage in unrelated areas of commerce.[158] This standard suggests that if a user can operate the allegedly infringing device in a noninfringing manner, then the distributor shall not face liability for contributory infringement.[159] Courts have applied this standard in several cases concerning digital technology.[160] Under *Sony*, therefore, BBS operators should not be liable merely for providing services concomitant with a bulletin board system. Bulletin board systems allow many non-infringing uses, such as posting messages originally written by users, forwarding messages posted by other subscribers,[161] or downloading information licensed by its proprietor.

Liability for contributory infringement also requires knowledge of the infringing activities committed by the primary infringer.[162] The *Sega* court, however, narrowly interpreted this

156 It provides users with access to information stored in a digitized form which is easy to copy and transmit, and it provides them with an automatic fast and efficient way of copying and transmitting the information into their own computers.
157 *See Sony*, 464 U.S. at 442 (The Supreme Court held that VCR systems allow consumers to copy broadcast programs for purposes of time shifting, which is considered a "fair use." Consequently, the systems were found capable of non-infringing use, and no contributory infringement was found.).
158 *Id.*
159 *See generally* RAYMOND T. NIMMER, THE LAW OF COMPUTER TECHNOLOGY § 1.19 (1992).
160 In *Vault Corp. v. Quaid Software Ltd.*, 847 F.2d 255 (5th Cir. 1988), the court found no contributory infringement in a program called RAMKEY that was designed to defeat an anti-copying software program. The court held that RAMKEY facilitated copying of Vault's customers' programs for archival purposes, which was considered fair use under § 117 of the Copyright Act.
161 Arguably, posting a message on a BBS implicitly grants subscribers a license to reuse it on the BBS. For instance, it is reasonable to assume that one can re-post a message as part of her response. The question, however, is whether posting also implies a license to re-post a message on other BBSs, or to use it in a different form (e.g., print).
162 *Sony*, 464 U.S. at 487 (citing Gershwin Publishing Corp. v. Columbia Artists Management, Inc., 443 F.2d 1159, 1162 (2d Cir. 1971)) ("[O]ne who, with knowledge of the in-

requirement. The court held that it suffices for a plaintiff to show that the defendant had knowledge of the uploading and downloading of the video-games. The fact that the defendant lacked knowledge as to which games a user would upload or download from its bulletin board did not absolve the operator of liability.[163] In *Cubby Inc. v. CompuServe Inc.*,[164] the Second Circuit dealt with the liability an on-line service provider faced for the information it carried in a different context. As opposed to an action for copyright infringement, *Cubby* involved a defamation suit against CompuServe for an article posted on one of its forums.[165] The court held that a commercial computer network is liable for a defamatory comment on its system only if "it neither knew or had reason to know" of the libelous statements and took no action.[166] The *Cubby* court thus imposed liability only if the on-line service operator possessed actual knowledge, stating that a higher standard would unduly restrict the flow of information.[167] Thus, the court recognized the social significance of on-line services in that they allow users to access information from around the world.[168] The *Sega* court failed to recognize these aspects in its decision. Part IV further discusses

fringing activity, induces, causes or materially contributes to the infringing conduct of another, may be held liable as a 'contributory' infringer.").

163 *Sega*, 857 F. Supp. at 686-87. The court referred to *Playboy*, in which the court found "irrefutable evidence" of copyright infringement. "[I]t does not matter that Defendant Frena may have been unaware of the copyright infringement. Intent to infringe is not needed to find copyright infringement. Intent or knowledge is not an element of infringement, and thus even an innocent infringer is liable for infringement." *Playboy*, 839 F. Supp. at 1559. *Playboy* is distinguishable, however, since it was decided under the theory of direct infringement.

164 776 F. Supp. 135 (S.D.N.Y. 1991).

165 *Id.* at 138-39.

166 *Id.* at 141.

167 *Id.* at 140. The court had to choose between two standards of liability for libel claims. A higher standard that applies to publishers makes them liable for any defamatory statement published by them. The lower standard, which applies to distributors, such as newsstands, bookstores, and libraries, makes them liable for content distributed if and only if they knew or had reason to know of the defamation. The court subjected CompuServe to the lower standard of liability. *Id.* at 140-41.

168 *Id.* at 140. The court also recognized the special nature of information technology and considered a broader social and industrial context in reaching its conclusion. The opinion portrayed the defendant as a pioneer in a revolutionary industry. *See Cubby*, 776 F. Supp. at 140. "CompuServe and companies like it are at the forefront of the information industry revolution. High technology has markedly increased the speed with which information is gathered and processed; it is now possible for an individual with a personal computer, modem, and telephone line to have instantaneous access to thousands of news publications from across the United States and around the world." *Id.* It is interesting to note the difference between this supportive, positive approach of an on-line service and the disapproving approach taken toward the BBS operators in *Playboy* and *Sega* which downplayed any social significance those services may have. One explanation for such disregard of the social significance of BBSs is the nature of the content at stake. In *Playboy*, the BBS was distributing sexually explicit materials, whereas the materials at stake in *Cubby* were news articles. Would *Playboy* and *Sega* have been decided differently if the content in question emanated from an innocuous newsgroup on the Internet?

these considerations.[169]

The final area of analysis focuses on the act of inducing or encouraging the infringement. The *Sega* court found that the defendant "specifically solicited this copying and expressed the desire that these video game programs be placed on the MAPHIA bulletin board for downloading purposes."[170] These solicitation efforts also formed an integral part of the defendant's marketing strategy. The BBS operator provided "downloading privileges for Sega games to users in exchange for the uploading of Sega games or other programs or information or in exchange for payment for other goods, such as copiers, or services, such as the provision of credit card numbers to users."[171] This pricing policy shows that the defendant actually sold the service of copying video-games. The defendant's profits from the BBS, therefore, depended in part upon the infringing copying.[172] As such, the defendant actively involved himself in the exploitation of the copyrighted games, at least for the purposes of collecting the fees.

Liability premised solely on a direct financial interest in the exploitation of copyrighted materials proves problematic. Consider the following example. Gopher is a menu-based system, developed by the University of Minnesota, whose purpose is to explore Internet resources.[173] Gopher determines the fee for its licenses based on the contribution of the "gopher sites" to the academic community.[174] Under this policy, gopher servers who offer information freely to the Internet community, such as institutions of higher education or non-profit organizations, receive their gopher licenses for free. Commercial sites, however, are charged unless they demonstrate that they make valuable information accessible to all.[175] The question arises as to whether the Gopher

169 *See infra* part IV.

170 *Sega*, 857 F. Supp. at 683.

171 *Id.* at 683-84.

172 The court found also that the defendant profited indirectly from the copying of games by the increased prestige of his BBS, and the increase in the market for the video game copiers. *Id.* at 683.

173 For further information on Gopher, see KROL, *supra* note 5, at 233-64.

174 For several years Gopher was distributed free to the Internet community. After facing financial difficulties in underwriting the continued development and maintenance of Gopher, the University of Minnesota Gopher team began to charge licensing fees.

175 In a document distributed to Gopher users in 1993, the Gopher team explained the underlying principles of its licensing policy: "We can make a case that if you put up a gopher server that makes useful information available to the Internet, then there is more useful information available to the University of Minnesota academic community also. . . . Finally, there is the grey area where information on a server run by a commercial entity is accessible to all . . . [w]hile having usefully compiled lists or indexed journals may well be an indirect benefit to you (folks will think well of your company and service) they have a direct benefit to everyone. In these cases, we'd like YOU to make a case arguing that the

Team should be liable for copyright infringements by gopher sites? If so, should liability arise merely because the gopher server facilitates such distribution of information; or should such liability stem from Gopher's pricing policy?

b. The Ability and Right to Monitor the Infringing Use

The chief reason for imposing liability on BBS operators seemingly derives from their ability and right to monitor and control the infringing use. To this end, the *Sony* court posited that "[i]n such cases, as in other situations in which the imposition of vicarious liability is manifestly just, the "contributory" infringer [is] in a position to control the use of copyrighted works by others and authorized the use without permission from the copyright owner."[176] This factor completely escaped the court's attention in *Sega.* The opinion also does not clarify whether the BBS operator enforced the pricing mechanism, and whether the defendant had any effective way of monitoring exchanges of games by its users.

A disseminator's right and ability to control the content carried also serves to determine liability for additional tort violations, such as defamation or invasion of privacy.[177] The law traditionally has distinguished between two standards of tortious liability for content—the publisher's standard and the carrier standard.[178] Publishers who actively prepare, select, and organize content likely will face liability for defamation and copyright infringement in the content they publish.[179] A disseminator, in contrast, who exercises

material on your server falls into the second category, enabling us to give you a license without a fee." *See* E-mail message from The Minnesota Gopher Team to gopher users (Mar. 11, 1993).

176 *Sony*, 464 U.S. at 437. The opinion referred to *Shapiro, Bernstein & Co. v. H.L. Green Co.*, in which the court stated that vicarious liability is established "when the right and ability to supervise coalesce with an obvious and direct financial interest in the exploitation of copyrighted materials." 316 F.2d 304, 307 (2d Cir. 1963); *see also* NIMMER, *supra* note 29, § 12.04[A], at 12-67. Under those circumstances lack of intent or knowledge of the actual infringement is not a defense. As noted above the boundaries between the two doctrines are unclear.

177 Consider, for instance, liability for defamatory statements. Liability of disseminators for defamatory statements posted by their users is based on the general rule that "one who repeats or otherwise republishes defamatory matter is subject to liability as if he had originally published it." RESTATEMENT (SECOND) OF TORTS § 578 (1981).

178 *See* Henry H. Perrit, Jr., *Tort Liability, the First Amendment, and Equal Access*, 5 HARV. J.L. & TECH. 65, 95-113 (1992).

179 The Second Restatement distinguishes between primary republishers, such as publishers of books or newspapers, and secondary publishers—transmitters and deliverers—who merely assist in distribution of the primary republishers' copies, such as newsstands or libraries. In the past, primary republishers were strictly liable for false and defamatory statements they published. Secondary publishers were liable only when they knew or had reason to know that the materials distributed contained defamatory statements. *See* RESTATEMENT (SECOND) OF TORTS § 581. *New York Times v. Sullivan* narrowed the gap between the liability of primary and secondary publishers, in holding that a newspaper publisher

little or no control over the content originated by its users, and does not disseminate its own content, probably will not be liable in tort for statements it carried.[180] Yet, the less control a network exercises over the content it carries, the more likely it will be subject to common carrier regulations.[181] FCC regulations require common carriers to provide universal access,[182] and to afford non-discriminatory service and charges.[183] Under this standard, therefore, an on-line service's accountability increases the more it involves itself in the content it carries.[184]

This regulatory framework recognizes the irreconcilable conflict between universal access and the duty to monitor and censor content.[185] It recognizes the social cost of imposing liability on disseminators of information. If on-line services face liability for injuries caused by information posted by their users, these services thus become compelled to censor in order to protect themselves.[186]

who published a false defamatory statement against a public figure, could not constitutionally be held liable unless he knew of the falsehood, or acted with reckless disregard with respect to the truth of the statement. 376 U.S. 254, 279-80 (1964); *see also* W. PAGE KEETON, DAN D. DOBBS, ROBERT E. KEETON, DAVID G. OWEN, PROSSER AND KEETON ON TORTS 810-12 (5TH ED. 1984).

180 *See* PROSSER AND KEETON, *supra* note 179, at 810-12.

181 Common carriers are regulated by the FCC, under the Communications Act of 1934, 47 U.S.C. § 151 *et seq.* The statute defines "wire" communication as "the transmission of writing, signs, signals, pictures, and sounds of all kinds . . . including all instrumentalities, facilities, apparatus, and services (among other things, the receipt, forwarding, and delivery of communications) incidental to such transmission." 47 U.S.C § 153(a) (1991).

182 47 U.S.C § 201(a) (1991).

183 47 U.S.C § 203 (1991).

184 Digitization allows carriers to effect the information they carry, thereby blurring the distinctions between carriers and publishers. Although CompuServe only carries the information posted on its forums, it also creates the context in which certain information may be posted. Thus, a neutral statement may become defamatory through the context in which it was posted. Likewise, sporadic segments from an article, which separately may be considered a fair use, may constitute an infringing compilation when posted together.

The applicability of common carrier regulations to bulletin boards is governed by the FCC's SECOND COMPUTER INQUIRY AMENDMENT OF SECTION 64.702 OF THE COMMISSION'S RULES AND REGULATIONS (SECOND COMPUTER INQUIRY), 84 F.C.C.2d 50 (1980) [hereinafter COMPUTER II], *aff'd in* Computer & Communications Indus. Ass'n v. FCC, 693 F.2d 198 (D.C. Cir. 1982). Under COMPUTER II, information transfer services are divided into basic services ("a pure transmission capability over a communications path that is virtually transparent in terms of its interaction with customer supplied information") and enhanced services and customer premises equipment, which apply to all other than basic services. Only basic services are subject to regulations. *Id.* at 419-20. Therefore the direct application of those regulations to bulletin boards, and other digital networks, is minimal. *See* Perrit, *supra* note 178, at 88. Perrit argues, however, that the common law tradition of common carriers governs public networks to the extent that they are unregulated, or deregulated. *Id.* at 67. For an historical review of common carrier doctrine, see *id.* at 86-91.

185 *See* Western Union Tel. Co. v. Lesesne, 182 F.2d 135 (4th Cir. 1950) (obligation to serve the public requires recognition of limited liability); O'Brien v. Westen Union Tel. Co., 113 F.2d 539, 541 (1st Cir. 1940) (immunity granted to common carriers must be broad enough to ensure efficient public service); *see also* Perrit, *supra* note 178, at 96.

186 This concern was the focus of the district court in *Auvil v. CBS 60 Minutes*, 800 F. Supp. 928 (E.D. Wash. 1992). The court discussed the liability of local affiliates of CBS for

The right to monitor exchanges among users further supplements liability. The question of whether this result is desirable in terms of public policy is discussed in Part IV.

From the perspective of control, one relevant factor for assessing liability derives from the extent to which a BBS is moderated. BBS operators may exercise different levels of control over the content of the information they carry. Some BBSs route messages without any human intervention. Others exercise various degrees of editorial control. Minimal levels of moderation allow free and instantaneous exchanges among users, and merely facilitate dialogue by excluding posting in certain forms, such as images or large files. BBS operators may also exclude certain users, such as commercial or for profit entities. Higher levels of moderation, however, may limit the types of information allowed on the bulletin board to certain subjects, or might maintain a particular focus through the elimination of repetitions or the rephrasing of questions.[187] Finally, some BBSs allow information to be posted only by the BBS operator.[188] A single system might use several methods simultaneously,[189] or may combine moderated on-line services

broadcasting an allegedly defamatory program. The court dismissed the claim against the affiliates, holding that the legal right and physical ability to censor the content are not tantamount to a duty to censor. Although the affiliates had both the contractual right to exercise editorial control by virtue of their contract with CBS and they had the technical capability to access the broadcast before it was aired, the affiliates did not have a duty to review the broadcast. To hold otherwise, the court reasoned "would force a creation of full time editorial boards at local stations throughout the country which possess sufficient knowledge, legal acumen and access to experts to continually monitor incoming transmissions and exercise on-the-spot discretionary calls or face $75 million dollar lawsuits at every turn. That is not realistic." *Id.* at 931.

187 This type of moderation makes the information more manageable for those who are interested in a particular topic but do not have the time to sift through large volumes of material. This is especially necessary for lists, since all traffic goes to all sites and can easily create an unmanageable volume of information. The problem is less of an issue for BBSs where subscribers may select the information at their receiving sites, using a hierarchical classification scheme that allows users to receive selective information.

188 News services are an example of this arrangement. There are also hybrid systems that centrally distribute information of one sort but allow other types of information to be freely exchanged. The operator of "Amateur Action Bulletin Board Service" is currently under indictment for pictures he posted on the bulletin board. All pictures were placed by the operator himself and he did not permit subscribers to add their own pictures to the bulletin board. However, the operator did not screen conversations that were transmitted freely. *See* Gina Boubion, *Porn Goes High-Tech On Computer Networks*, THE ARIZ. REPUBLIC, Mar. 12, 1994, at A11.

189 Some forums on USENET, for instance, are moderated, whereas others use the classification scheme. USENET was announced in 1980 as a two site network that connected the Unix sites of Duke University and the University of North Carolina. The network offered network news, electronic mail, and file transfers. "USENET is truly a grassroots phenomena. It has no central administration, no clearly defined goals, no formal membership, no restrictions on use — and yet may be the largest computer network in the world." *See USENET and LISTSERVS: Electronic News and Conferencing*, ONLINE LIBR. & MICROCOMPUTERS, May 1992, at 21.

with gateways to other unmonitored forums. The less moderated a BBS is the more likely it will be considered a communication service and thus exempt from liability.

Another issue that affects the ability to monitor is the structure of the information flow. This factor focuses upon whether the information comes from a single source or from multiple sources. In *Cubby*, as in *Sega* and *Playboy*, the defendants themselves did not post the relevant information.[190] In *Cubby*, however, CompuServe contracted the operation of the BBS (Journalism Forum) to an independent contractor who published the defamatory statement.[191] In contrast, the BBS operators in *Playboy* and *Sega* facilitated posting by users.[192] In other words, whereas in *Cubby* only a single source of information existed, in *Playboy* and *Sega* the information came from numerous sources. Monitoring and controlling a single source of information, as opposed to several hundred sources, is technically easier and less expensive. Yet, the court in *Cubby* held that CompuServe had little control over the information posted by its single contractor.[193] Under this reasoning, monitoring content originated by hundreds of subscribers also should be considered infeasible.

The *Cubby* court drew an analogy between an on-line service and a library, and found CompuServe subject to a lower standard of liability for the information it carried.[194] This analogy, however, fails to capture the dynamic nature of the information flow. Libraries and bookstores distribute fixed information that can be monitored at discrete intervals, such as before a book is acquired and enters the inventory. On-line services, however, facilitate instant exchanges among subscribers which, if monitored, would require a high degree of supervision over private exchanges. Consequently, analogizing an on-line service to a library may impose a higher level of liability on BBS operators.[195]

In framing the question of contributory infringement without

190 *Cubby*, 776 F. Supp. at 139.
191 *Id.* at 137.
192 *Playboy*, 839 F. Supp. at 1554; *Sega*, 857 F. Supp. at 683.
193 *See Cubby*, 776 F. Supp. at 140.
194 *Id.*
195 *Cubby* demonstrates the problem of understanding new technologies in terms of existing institutions by attempting to analogize digital technology to existing concepts and vocabulary. This problem is amplified in copyright litigation where the legal framework imposes archaic nineteenth century terminology and forces the court to use such analogies. Using analogies is inevitable in understanding any new phenomenon. Analogies may fail, however, to address the unique characteristics of digital technology and its social and legal implications. It is therefore necessary to challenge the applicability of analogies to new situations, and to recognize their limits in capturing the new issues at stake. Part II discusses this methodological problem. *See infra* notes 200-229 and accompanying text.

considering the BBS's right and ability to control uses by subscribers, the *Sega* court failed to recognize the complexity of BBS-users relationship.[196] The fact that an ongoing relationship exists between the primary and the contributory infringers, at the time the infringement occurs, supports the finding of contributory infringement.[197] Other aspects of the BBS-users relationship, however, supports the opposite conclusion. The decentralized distribution of information on a BBS creates a non-hierarchical relationship. The distribution structure itself does not require the BBS operator to monitor or exercise any control. Imposing liability on a BBS operator, however, may shape the BBS-users relationship in a socially undesirable manner.[198]

The liability rule for contributory infringement set forth by *Sega* is broad and vague. The court did not distinguish the various grounds on which it imposed liability. It also failed to distinguish the operator's actions from those of its users.

Finally, the court did not examine the *right* of the BBS operator to monitor posting by users. Such statutes as the Electronic Communication Privacy Act of 1986[199] may govern the legality of monitoring of this sort. This statute limits the circumstances under which network service providers may intercept electronic message exchanges. The lack of explicit analysis concerning the circumstances that give rise to liability of the BBS operator, creates a rule that may cover any conceivable use of on-line services. Such a broad rule may have a chilling effect on the BBS market.

III. Conceptual Difficulties

The two cases demonstrate the shortcomings of copyright law in the world of digitized media. Both the *Sega* and *Playboy* courts failed to recognize the need to adopt and mold the underlying principles of copyright to the special circumstances of a digitized environment. The following conceptual analysis looks beyond these two decisions and tackles the current debate concerning the role of copyright in the information age.[200]

196 *Sega*, 857 F. Supp. at 687.

197 *See Sony*, 464 U.S. at 437.

198 Part IV discusses how a liability rule may shape the BBS-users relationship. *See infra* notes 310-12 and accompanying text.

199 18 U.S.C §§ 2510-2710 (1988). The Electronic Communication Privacy Act (ECPA) protects the interest of individuals and companies in the privacy of their communications. *See generally* Senator Patrick J. Leahy, *New Laws for New Technologies: Current Issues Facing the Subcommittee on Technology and the Law*, 5 Harv. J.L. & Tech. 1, 10-13 (1992).

200 Although the preliminary draft of the Working Group on Intellectual Property of the Information Infrastructure Task Force, recognized the need to adjust copyright law to the digitized environment, its recommendations rely on some of the most problematic copyright concepts. For instance, the Working Group recommended to amend the definition of "transmit" to include any distribution "whereby a *copy* or phonorecord of the work is *fixed* beyond the place from which it was sent," IITF Green Paper, *supra* note 13, at 122 (emphasis added). The continuous reliance on the notion of copy, without recognizing its role in the balance of power between copyright owners and users, may also explain the Report's recommendation to exclude on line transmission from reach of the first sale doctrine. *Id.* at 125.

The uncritical use of existing copyright concepts in the digitized environment yields circular results.[201] Copyright legal concepts, like all other linguistic categories, reflect a set of assumptions. The outmoded application of copyright law imposes the existing set of values and assumptions on digital technology. The use of copyright concepts, without questioning the continued validity of the assumptions on which they rely may limit our understanding of the digitized environment. Furthermore, the uncritical use of copyright concepts without recognizing the manner in which they are historically connected to specific technologies and patterns of power serves to reproduce the present structure of power.[202] This article therefore calls for a critical analysis of copyright ideology—an analysis that focuses on the assumptions underlying copyright doctrine and the structure of power they support.

The following discussion questions the assumptions behind the notions of the creation and distribution of information. The first section focuses on the difficulties of applying the notions of "a copy" and "to copy" in a digitized environment. The next section deals with "distribution" and how it differs from digitized "access." The last section highlights the difficulties the concepts of "public display" and "public distribution" present in a digitized context. Digitization, in essence, transforms the private/public distinction central to copyright law and challenges the rules predicated on that distinction.

A. *Copies, Copying and Fixation*

1. Digitization and the Notion of 'Copy'

Both courts perceived the BBS operations to involve the distri-

201 *See infra* notes 299-308 and accompanying text.

202 *Cf.* Sue Curry Jansen, *Gender and the Information Society: A Socially Structured Silence*, *in* The Information Gap 196, 198-199 (Marsha Siefert et al. eds., 1990). Jansen examines this methodological difficulty in an attempt to theorize about technology from a feminist perspective. "[P]utting the new wine of critical and cultural theory in the old bottles of patriarchal linguistic categories inhibits, perhaps even precludes, the kinds of radical reconceptualization of structures of everyday life—of authority, difference, community, and relations with the nonhuman environment—valorized by current critical and postmodernist perspectives with communication studies. In sum, the absence of a critical consciousness regarding the gendering of technological discourse concedes contestable territory to technological designs that reproduce old patterns of power and privilege." *Id.*

bution of "copies."[203] These views run counter to the dictates of copyright law and may have a distorting effect on copyright policy. First, the view that loading information into a computer's RAM creates a "copy" eviscerates the fixation requirement—a requirement central to copyright law.[204] Such an interpretation extends the meaning of "copying" to include the creation of both permanent and transitory duplications, and covers any information captured momentarily in the working memory of a computer.

Copyright law distinguishes between a work of authorship and its material embodiment. The fixation requirement posits that only a work embodied in a material object may receive the benefits of copyright protection.[205] Along these lines, the unauthorized fixation of a previously fixed work results in infringement. Digitized texts, however, involve a different manner of fixation. Writing digitally, for instance, involves "Virtual Texts."[206] With the exception of brief correspondence, all digitized texts read and written by users represent an electronic version of the primary work stored in the computer's memory.[207] In this sense the fleeting nature of the text characterizes the digitized medium. This also holds true for exchanges of texts on-line. Although services save part of the network traffic in its archives, these systems usually delete most of the text after the transitory moments of communication and reception. Services such as IRC Chat, which allow large group conversations over the Internet, typically operate in this manner.[208]

Furthermore, the technique an on-line service uses to upload and download information has different implications with regard to the concept of "copy."[209] To determine infringing and non-in-

203 *Playboy*, 839 F. Supp. at 1556; *Sega*, 857 F. Supp. at 685.

204 *See infra* notes 205-208 and accompanying text.

205 Copyrighted protection subsists in an original work, "fixed in any tangible medium of expression." 17 U.S.C § 102 (1988). The fixation requirement originates in the Constitution that provides rights to authors of "writings."

206 *See* LANDOW, *supra* note 1, at 21-22.

207 *Id.* at 19. ("One therefore works on an electronic copy until both versions converge when one commands the computer to "save" one's own version of the text by placing it in memory. At this point the text on screen and in the computer's memory briefly coincide, but the reader always encounters a virtual image of the stored text and not the original version itself; in fact, in descriptions of electronic word processing, such terms and such distinction do not make much sense.").

208 *See* KROL, *supra* note 5, at 509.

209 When a file, for instance, is downloaded from a File Transfer Protocol [hereinafter FTP] site, it creates several copies of the file in the RAM of the various machines that the FTP happens to cross on its way to the recipient computer. Would all those intervening copies made during FTP be considered infringing copies? Moreover, in some FTP processes it is possible to read data from a disc and send it directly to the network without routing any data through RAM. This may depend on the specifics of the FTP site and the node. Likewise, it may be possible to buffer segments of the data in RAM, so that at any given time the entire file would not be in RAM.

fringing uses in such a technical manner undermines the constitutional purpose of copyright law—to provide for the greatest possible dissemination of information.

Finally, digitization undermines the distinction between the physical medium and its content. A book and the text embodied in the book represent an example of this distinction. Digitized text, in contrast, may be delivered through the network without the use of any physical medium. Consequently, the distinction between the physical copy and the copyrighted material no longer retains its validity.

2. The Notion of 'Copy' and Copyright Policy

The notion of "copy" in a digitized environment may impact the implementation of copyright policy. This concept is central to the economic rationale of copyright law.[210] Copyright law seeks to secure compensations for authors by enabling copyright owners to charge fees for certain uses of their work.[211] In the past copyright law served that goal by allowing copyright owners to sell physical copies of their works so purchasers were able to use these physical copies only subject to the owner's exclusive rights.[212]

Digitization undermines the copyright owner's ability to sell copies of his work and collect fees. Digitized information is easy to reproduce and less expensive to copy and distribute.[213] It can be reproduced in a matter of seconds, downloaded from a network by users, and retransmitted. Furthermore, digitized reproduction does not diminish the quality of the work.[214] The ability to create

210 The United States Constitution, Article I, Section 8, Clause 8, empowers Congress to legislate intellectual property statutes, as follows: "[T]o promote the progress of science and the useful arts, by securing for limited times to authors and inventors, the exclusive right to their respective writings and discoveries." The Supreme Court held that this clause expresses the conviction that encouragement of individual effort by personal gains is the best way to enhance public welfare. *See* Mazer v. Stein, 347 U.S. 201, 219 (1954).

211 *See* GORDON, *supra* note 3, at 1390.

212 *Id.* The economic rights of authors are secured by the bundle of rights defined in Section 106 of the 1976 Copyright Act. 17 U.S.C § 106. This section provides authors with the exclusive right to reproduce and distribute copies to the public, provide public performance and public display, and create derivative work.

213 Digitized reproduction is cheaper then mechanical reproduction. In text, for instance, it would be cheaper to copy a 1000 pages onto a disk then to print them on paper. There is also no need for special equipment. The same computer that was used to generate the text, may be used in its reproduction.

214 When an original version of a work has an advantage over its copies, users are induced to purchase the original. Such demand for "originals" protects the market for the work and undermines the justification for legal protection in the form of intellectual property. *See* Palmer, *Intellectual Property: A Non-Posnerian Law and Economics Approach*, 12 HAMLINE L. REV. 261, 297 (1989). While copied versions of books or records may be inferior in their quality compared with the original, digitized copies are identical to the original, and there is no generational loss. *See* Samuelson, *supra* note 1, at 325-26; Rice, *Licensing the Use*

identical copies, coupled with the vanishing marginal cost of digital distribution, makes it difficult for publishers to compete with copiers.[215]

Digitization also makes it difficult and expensive to monitor the preparation of copies.[216] Several reasons account for this. Individuals are able to copy copyrighted materials in the privacy of their home or office through the use of their equipment. Digitized copying does not require the use of large scale equipment, such as a printing press or even xerox machines.[217] As such, monitoring becomes more expensive and intrusive. Under these circumstances monitoring may violate the user's privacy. Furthermore, the digitized environment discourages self-restraint. The absence of physical boundaries,[218] the fact that a computer conducts the actual process of copying automatically, and the abstract nature of the output copies—all these factors contribute to the public sense of legitimacy with respect to digitized copying.[219] Also, to use one's computer to copy works to which one has access coincides with our perceptions of property rights in tangibles, and what qualifies as legitimate appropriations. Finally, no established social or ethical code exists to prevent copying on computer networks.

The threat of reduced compensation induces publishers to seek alternative distribution mechanisms that may restrict users'

of Computer Program Copies and the Copyright Act First Sale Doctrine, 30 JURIMETRICS J. 157, 160 (1990) (reproduced copies of software provide the same performance and repeated use capacities that a market copy provides).

215 In books, for instance, the price of photocopying a book may often get close to (or even exceed) the price of a book. The costs of print will usually be subject to economies of scale, and therefore the costs per copy will decrease with the volume. As a result, publishers will be in a better position to compete with copiers. Since the cost of copying is virtually nothing, publishers may no longer be able to compete with copiers. Although the cost of reproduction to publishers are also lower, they must still cover other expenses such as distributing and marketing the work. For an analysis of the economic considerations in the context of computer programs see P.S. Menell, *An Analysis of the Scope of Copyright Protection for Application Programs*, 41 STAN. L. REV. 1045 (1989); *see also* W.M. Landes & Richard A. Posner, *An Economic Analysis of Copyright Law*, 18 J. OF LEGAL STUD. 325 (1989).

216 Samuelson, *supra* note 1, at 325-27.

217 *Id.*

218 *See* Gordon, *supra* note 3, at p. 1345-47. The natural expectation of people is that they are entitled to freely exercise their physical possessions. The imposition of restrictions over the use of their property may seem unfair. The copyright owner's intangible interest may be perceived as imposing an "extra" unjustified restriction that limits the liberty in a way that ordinary property does not.

219 The abstract concept of intellectual property does not prompt the moral instinct of the public that is usually function as natural restrains and support general compliance with the rules of the states. *Id.* Though this problem is typical of all areas of intellectual property, it is aggravated in a digitized environment. Since there are no physical boundaries that one has to cross, and that may signal the extent of right, the self awareness of users to the wrong they caused would be low. A low level of self restraint would raise the costs of enforcing copyright law in a digitized context.

rights in an excessive manner.[220] Publishers also seek to reinforce their rights under copyright law through the waging of legal wars against on-line services and by lobbying Congress. The rhetoric often employed by publishers in this campaign for stronger protection focuses on the ease of copying and dissemination in a digitized environment. This description however, is misleading. The emphasis upon "copying" actually constitutes a veiled demand by publishers to expand their rights beyond the monopoly they currently exercise over infringing uses.

Under the current case law multiple incidental copies are created every time programs or data are used on a computer.[221] A monopoly over those copies would provide copyright owners with control over the *use* of their works. In the print world infringement occurs not upon the reading of the text. Rather, infringement results only from unauthorized copying.[222] Yet, if displaying a text on a computer screen involves the creation of a copy, then the monopoly of copyright owners broadens and covers not only "copying" the text but also the mere reading of it.

Section 117 of the 1976 Copyright Act[223] sought to address this issue with respect to computer programs. Section 117 provides that infringement does not result from the creation of incidental copies of a program if such copies are essential for the utilization of the program.[224] Nevertheless, this section applies only to computer programs and not to other types of digitized information. Furthermore, as interpreted in *MAI*, section 117 applies exclusively to *owners* of copies, and does not extend the same privilege to *licen-*

220 One such alternative is restricting access to copyrighted works all together and charging for any use based on volume or connection time. Connection time may increase disparities among users based on the type of equipment they are using (for instance, it will take more time, and would therefore be more expensive, to download a book using a 1200 baud modem, instead of a 9600 baud).

221 This is because digitized works are represented abstractly in ones and zeros and require the use of a computer to access them. When one works with programs and digitized information, one copy is stored on the hard disk/diskette, another copy of the information is generated in the RAM, and a copy is displayed on the screen. Furthermore, when one is connected to other servers more copies may be involved.

222 POOL, TECHNOLOGIES OF FREEDOM, *supra* note 1, at 214. ("Consider the crucial distinction in copyright law between reading and writing. To read a copyright text is no violation, only to copy it in writing. The technological basis for this distinction is reversed with a computer text. To read a text stored in electronic memory, one displays it on the screen; one writes it to read it. To transmit it to others, however, one does not write it; one only gives others a password to one's own computer memory. One must write to read, but not to write.").

223 17 U.S.C. § 117.

224 *Id.* "[It] is not an infringement for the owner of a copy of a computer program to make or authorize the making of another copy or adaptation of that computer program provided: (1) that such a new copy or adaptation is created as an essential step in the utilization of the computer program."

sees.[225] The absence of a definition explaining what it means to own a "copy" of on-line information coupled with the fact that the vast majority of users do not own their "copies," renders section 117 inapplicable in most cases.

The concept of a "copy" also plays a central role with regard to the privileges of users under the "first sale doctrine." Section 109(a) provides that "the owner of a copy . . . lawfully made under this title, or any person authorized by such owner, is entitled, without the authority of the copyright owner, to sell or otherwise dispose of the possession of that copy."[226] The "first sale" doctrine thus favors the alienation of personal property over copyright monopoly.[227] This doctrine is difficult to apply, however, since no distinction exists to separate the tangible qualities of a copyrighted work from its intangible aspects. The first sale doctrine raises a variety of questions: does a user acquire a property interest in a digitized copy received over a network? Does ownership extend to bits? What is the scope of any such ownership rights? The first sale doctrine considers the interests of the copyright owner against the competing public interest in free trade and alienation of goods.[228] This rationale does not apply to the virtual context of digitized works.

The absence of a physical medium alters the balance of power between users and publishers. On-line services may exercise continuous control over the use of works. When one acquires a book, for instance, she gains unrestricted access to the information it contains. On the other hand, access to information on an on-line service may be restricted or terminated at any time. The on-line provider also may impose restrictions on users at their discretion. While the acquisition of a book involves a single purchase that provides the buyer with property rights over the book, accessing information on-line requires an ongoing relationship between users and providers of on-line services.[229] In the absence of analogous rights

225 *See MAI*, 991 F.2d at 518.

226 The right to distribute copies to the public entitles the copyright owner to control the first public distribution of her work. Any further transfer of copies that were lawfully made is permissible under the First Sale Doctrine. *See* 17 U.S.C. § 109(a). Similarly, section 109(c) provides the owner of a copy with the right to display her copy in public under certain restrictions. 17 U.S.C. § 109(c).

227 Blason, Inc. v. DeLuxe Game Corp., 286 F. Supp. 416 (S.D.N.Y. 1965) ("The first sale rule . . . finds its origins in the common law aversion to limiting the alienation of personal property."); Sebastian Int'l, Inc. v. Consumer Contacts (PTY) Ltd., 847 F.2d 1093, 1096 (3d Cir. 1988); *see also* NIMMER, *supra* note 29, § 8.12[A], at 8-135.

228 *Id.*

229 The power of the publisher in the digital domain is demonstrated in the case of JURIS. JURIS was a database of judicial opinions in electronic form that was established by the Department of Justice in 1971, and served as a legal research source for federal agents. In 1983 the Justice Department signed a contract with West Publishing Company to maintain and develop the database. On Sept. 30, 1993, West announced that it would not renew its contract with the Department of Justice when it expired at the end of 1993. The reason was West's concern that making JURIS available to the public would threaten the financial success of its own commercial legal database (Westlaw). Making JURIS available to the public would have dropped costs of on-line federal case law and CD ROMs dramatically due to competition. The contract required the federal government to return or erase all West-supplied data when the contract expired. Consequently, JURIS was left with a ten year gap in its case law, and the Department of Justice announced that it would shut down JURIS on Jan. 1, 1994. *See* Graeme Browning, *Dueling Over Data*, 25 THE NAT'L J. 2880 (Dec. 4, 1993). The example of JURIS demonstrates the increasing dependency of users on information providers. While in the print world the expiration of a contractual relationship would stop the supply of future information, it would leave the information already supplied intact.

to those granted under first sale doctrine, users' freedom to access and use information becomes more vulnerable. In a digitized environment, this creates a sweeping right for the copyright owner.

The effect of digitization on the creation and dissemination of information extends far beyond the facilitation of copying. Digitization alters the roles played by the different actors and the power they may exercise. To focus the debate over the definition of copyright in a digitized environment on the notion of "copy" naturally presupposes an expanded monopoly for publishers. The current platform refuses to question the publishers' role in the digitized environment, and fails to consider how publishers manipulate the notion of "copy" to maintain their power.

B. *Distribution and Access*

The traditional concept of "distribution" is outmoded as a signifier for the activity of dissemination in the world of the BBS. Thomas Dreir proposes to replace "distribution" with the idea of facilitating access to information:

> Each private sphere connected to a network has two distinct parts: one part which is publicly accessible and another part which is publicly inaccessible. Consequently, a work is being made "publicly" available as soon as it is transferred within the private sphere of the author—or the person marketing the work—from the inaccessible part to the part which is accessible to third parties.[230]

Information may become accessible in various methods. One method focuses on transferring the work into an accessible server, such as posting on a BBS. A file may be made accessible through

230 Thomas Dreier, *Copyright Digitized: Philosophical Impacts and Practical Implications for Information Exchanges in Digital Networks*, *in* WORLD INTELL. PROP. ORGANIZATION ("WIPO") WORLDWIDE SYMPOSIUM ON THE IMPACT OF DIGITAL TECH. ON COPYRIGHT AND NEIGHBORING RIGHTS 187, 198 (Mar. 31, 1993).

the use of an anonymous FTP.[231] Yet, another way of making files accessible is to provide users with permission to access.[232]

Expanding the exclusive right of distribution to include the practice of providing access, extends the rights of the copyright owner beyond those currently granted under copyright law. Comparing a BBS and a list may prove illustrative. A list is an e-mail address that is a macro for many e-mail addresses.[233] Users send their mail to a single address. The mail thereupon is redirected to the list's subscribers, either directly or after a process of selection.[234] Both lists and BBSs allow subscribers to share their information with a whole group of other subscribers. While a list creates copies of messages received and sends them to the addresses of all subscribers of the list, the BBS stores the message and provides its subscribers with *access* to those messages. Copies of works, if any, are made by the individual users.[235]

This may seem a technicality, but this difference carries tremendous import under copyright law. The exclusive rights under copyright law are very precise, and reflect a delicate balance between different interests. Under section 106(3), the copyright owner has the exclusive right: "to distribute copies . . . of the copyrighted work to the public by sale or other transfer of ownership, or by rental, lease, or lending."[236] Consequently, infringement occurs only when unauthorized distribution of the material embodiments of the copyrighted work occurs. The law does not provide the copyright owner with a monopoly over access to her work.[237]

A dissemination structure that focuses on providing access to information, rather than distribution in a physical media, may enhance the power of on-line services to monitor and restrict access to information. Providers of on-line information are able to monitor and restrict access, and exclude certain types of users or uses of information. A BBS operator may restrict access to information and may monitor the content transferred. Prodigy, one of the major five on-line services in the United States, owned by IBM and Sears, terminated the service of users who used the network to protest the company's pricing policy.[238] Whereas Prodigy deprived users of access to any information on its service, an owner of a book in the print world never faced the threat of having to surrender her copy due to her behavior.[239] Dissemination by access thus alters the balance of power between users and publishers.[240]

The practice of providing access also blurs the distinction between copying and distributing. When a subscriber downloads a file from a BBS, she activates a program that copies the file and transfers it to her computer memory. When a subscriber posts a file on a BBS it is copied into a space accessible to other subscribers. Does posting a work on a BBS constitute distribution of copies to the public? The answer is unclear. BBSs create a continuum between personal communication and publication, and make it difficult to distinguish between them. When one sends an e-mail message to a single address one is plainly engaged in a personal communication. When one corresponds with several people and sends copies of all correspondences to each of them, one may still be considered to be engaged in personal communications. When does sending a message to a small mailing list cease to be a series of personal communications and becomes public distribution? Defining the meaning of public distribution on a BBS involves not only

231 FTP is a protocol that defines how to transfer files from one computer to another. *See* KROL, *supra* note 5, at 508.

232 Dreier draws an analogy between making a file accessible and placing milk bottles on the doorsteps. The doorstep, like the accessible file, is still on a private ground—but it is accessible to the milkman. Dreier, *supra* note 230, at 198.

233 A list server is a kind of software that can be placed on an electronic mail system so that when people send a message to the address of the list server, the message is automatically relayed to everybody else who subscribes to that list server. It is a kind of multiplier or reflector: an automatic mailing list. It is technically a use of electronic mail. It functionally is a hybrid of electronic mail, electronic conferencing and electronic publishing.
Perrit, *supra* note 178, at 324.

234 "Some mailing lists are simple reflectors, redirecting mail sent to them to the list of recipients. Others are filtered by humans or programs of varying degrees of sophistication; lists filtered by humans are said to be moderated." THE NEW HACKER'S DICTIONARY, *supra* note 5, at 233.

235 Note that a BBS operator may post any information on the system just like any other user. The interesting question is, however, to what extent should the BBS operator be liable for information uploaded by its subscribers in violation of copyright law.

236 17 U.S.C. § 106(3).

237 *See* Gordon, *supra* note 3, at 1383; NIMMER, *supra* note 29, § 8.01.

238 Prodigy users used electronic mail and bulletin boards to organize a protest against changes in the network's pricing policy. Prodigy discontinued service to users who participated in the protest. The users argued that Prodigy interfered with their free speech interests. For a discussion of the constitutional aspects of those events see Edward J. Naughton Note, *Is Cyberspace a Public Forum? Computer Bulletin Boards, Free Speech, and State Action*, 81 GEO. L.J. 409-12 (1992); see Jerry Berman & Marc Rotenberg, *Forum: Free Speech in an Electronic Age*, N.Y. TIMES, Jan. 6, 1991, at C13; *see also* James Boyle, *A Theory of Law and Information: Copyright, Spleens, Blackmail and Insider Trading*, 80 CAL. L. REV. 1413, 1523-24 (1992).

239 Another example of withholding access is the announcement of Knight-Ridder Tribune which publishes via ClariNet, that it will cease publishing the Dave Barry column and the Mike Royko column. This announcement followed a reported case of piracy, in which a subscriber sent a copy of the column via e-mail to a non-subscriber mailing list, David Astor, *Barry Feature Polled*, EDITOR & PUBLISHER MAG., Oct. 8, 1994, at 46.

240 Prodigy's decision to shut down a bulletin board that it considered pornographic, represents another incident concerning censorship issues. Prodigy closed a bulletin board called "Frank Discussions", on the ground that it constituted pornography. On the conflicts between Prodigy's management and the network's users over censorship policies employed by the network see *Sex Talk Prompts Prodigy to Shutter Bulletin Board*, CHI. TRIB., Feb. 1, 1993, at B2. For the significance of those incidents from the perspective of the First Amendment see Naughten, *supra* note 238.

adjusting the notions of copying and distribution, but also addressing the notions of private and public. The next section concerns these issues.

C. *Digitization and the Public/Private Distinction*

The question of what constitutes public distribution and public display in a digitized context raises another set of conceptual difficulties. Digital technology challenges the notion of the "public" and the private/public distinction. We may all agree that if one uses her computer in the privacy of her home or office this use occurs in private. When a user enters an on-line service she is able to interact with other users and access information open to everyone or to a large group of users. Does an on-line service constitute a public sphere? Does logging on to an on-line service transform the situation from private to public? When one navigates the Internet from the privacy of her node, does she leave the "private" and enter the "public?" The physical boundaries that previously drew the line between the private and public no longer distinguish between these two spheres. This diminishing role of the physical realm for separating the private and the public evidences itself in the context of other technologies.[241] Thus, radio and television broadcasting provided the traditional means through which everyone could share a social experience from the privacy of one's home.[242]

Defining on-line services as "public forums" does not necessarily make all on-line uses "public." For instance, when a user corresponds via e-mail we consider this communication private. Accessing files opened to other users, however, such as in a BBS scenario, raises the question as to whether this transforms the service from a private forum into a public one. By watching television, viewers do not become part of a public situation. In stark contrast, on-line services allow users to interact with the information posted, and thus to participate in the situation they encounter. The question is whether the manipulation of information on-line constitutes

241 The weakening force of the 'physical place' to distinguish between private and public is also the consequence of social transformations as manifested by law. For instance, the growing awareness of domestic violence challenged the traditional liberal approach which protected the (private) home from the power of the government. Increasingly, women are able to file suits against marital rape, and courts are intervening in cases of child abuse. On private/public distinction under liberal ideology and the perception of the family, see Frances E. Olsen, *The Family and the Market: A Study of Ideology and Legal Reform*, 96 HARV. L. REV. 1497 (1983).

242 On the effect of the media on the concept of private experience and social situations, see JOSHUA MEYROWITZ, NO SENSE OF PLACE, THE IMPACT OF ELECTRONIC MEDIA ON SOCIAL BEHAVIOR 69-125 (1985).

a public behavior, and whether one's behavior provides a suitable measure for distinguishing the private and the public. The question of which on-line activities are considered private may determine many of the rights and obligations of users and on-line providers. For instance, what would be the scope of the constitutional right of users under the Fourth Amendment?[243] One needs a warrant to enter a suspect's home, but does one need a warrant to follow exchanges of information on-line, or to open a file on a server?

One cannot make the distinction between private and public in the abstract. One must first define the purpose in labelling an action or a place as either private or public. The following discussion therefore explores the role that the private/public dichotomy plays in copyright law. The next section examines how digital technology challenges this dichotomy, and sets forth the principles for approaching the private and public in the interactive medium.

1. Public, Private, and Copyright Law

The private/public dichotomy is fundamental to copyright law and emerges at every level of its operation,[244] dividing the world of cultural products into private property and public domain.[245] The distinction copyright law delineates between expression and idea retains any aspect of a work which is not considered an expression within the public domain.[246]

The public/private distinction also draws the line between permissible and infringing uses of copyrighted works. The exclusive right of copyright owners to disseminate their works extends only to distribution, display or performance in public. Even though the private use of a copyrighted work, such as unauthorized reproduction or the preparation of a derivative work, may also

243 U.S CONST. amend. IV. ("The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated. . . .") For the extent to which the Fourth Amendment applies to computerized records see Note, *Warrant Requirement for Searches of Computerized Information*, 67 B.U. L. REV. 179 (1987).

244 Peter Jaszi, *Towards a Theory of Copyright: The Metamorphoses of 'Authorship'*, 1991 DUKE L.J. 455-502 (arguing that copyright doctrine includes a fundamental tension between public benefits and private rewards). Many courts downplayed this contradiction by replacing it with other pairs of opposition, such as the idea/expression distinction that appears to be more reconcilable, but in fact provokes that tension over and over again. *Id*; *see also* Boyle, *supra* note 238.

245 One author suggests that the institution of copyright stands on the boundary between the private and the public. This explains why "copyright is sometimes treated as a form of private property and sometimes as an instrument of public policy created for the encouragement of learning." *See* MARK ROSE, AUTHORS AND OWNERS 140 (1993).

246 *See* Baker v. Selden, 101 U.S 99 (1876). This distinction is now embodied in section 103(a) of the 1976 Copyright Act. 17 U.S.C. § 103(a); *see also* Jaszi, *supra* note 244.

infringe one's copyright,[247] such acts become legally significant only when they are likely to affect the market for the work.[248] Distinguishing between public and private uses therefore defines what it means to have a copyright in a work.[249] Thus, copyright law not only distinguishes between private property and public domain, but also uses the private/public dichotomy to define the boundaries of private property. When a work is private, namely copyrighted, several public uses are prohibited unless those uses are licensed by the copyright owner.[250] This carefully delineated measure of ownership distinguishes copyright from conventional property rights in tangible objects, such as a house. When one owns a house, one is able to exclude both private and public uses of the house. When a person owns a copyright in a movie, however, she may prevent its public performance, but not its performance in private. This public/private dichotomy illustrates a fundamental tension in copyright law. The policy rationale underlying the public/private dichotomy, emphasizes that copyright doctrine mediates public interest in the production of information and the public interest in access to information. Current copyright law addresses this tension by temporarily placing certain types of information under limited private control. This results in the exclusion of some information from the public.[251]

Thus, it is necessary to examine particular assumptions relevant to the public/private dichotomy, and what consequences this distinction has within the copyright arena. First, copyright law perceives the private realm as the focus of the creation process. Works are created by individual authors in isolation and within a private sphere. This conception of private creators justifies remuneration through private property.[252] The "public," by contrast, is conceived as a market of passive users that exploit cultural products, created in the private sphere.[253]

Thus, one set of assumptions relates to the process of creation. Several scholars have suggested that our contemporary definition of "author," reflects a late eighteenth century Romantic notion. The notion stems from the genius of an author who "breaks altogether with tradition to create something utterly new, unique—in a word, 'original'."[254] This notion perceives the individual author as the epicenter of the creation process, and consequently, exclusively responsible for the creation of a work. This rationale provides the moral basis for granting authors both credit and reward for their works.

Another set of assumptions relates to the distribution of works. Distribution involves the transfer of works from the private sphere to the public sphere. This transfer is the ultimate goal of copyright law.[255] The underlying purpose of copyright law is not only to provide incentives for the creation of works, but also for sharing those works with the public.[256] Once a work leaves the exclusive control of the author within the private sphere and thus becomes accessible to the public, the authors' ability to collect compensations for the use of her work decreases. Mechanisms designed by copyright law seek to secure monetary incentives for authors when a work becomes the most vulnerable to unauthorized exploitation, namely, when it becomes available to the public.

Accordingly, copyright law allows authors to commodify their works in the marketplace by granting them an exclusive right to

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247 *See Sony*, 465 U.S. at 465-70 (Blackmun, J., dissenting). There is no private use exemption under copyright law and some uses in private may be infringing. Walt Disney Prod. v. Filmation Assoc., 628 F. Supp. 871, 876 (C.D. Cal. 1986); NIMMER, NIMMER ON COPYRIGHT, *supra* note 29, § 8.02[C], at 8-30-31.

248 This is reflected in fair use doctrine. Under section 107 of the 1976 Copyright Act, an otherwise infringing act may not impose liability on the actor, if it constitutes fair use. The factor considered the single most important element of fair use is "the effect of the use upon the potential market for or value of the copyrighted work." 17 U.S.C. § 107(4). Although fair use under U.S. copyright law is not defined as private use, private non-commercial use would weigh in favor of fair use defense, even though it is only one element to be weighed in a fair use analysis. *See* Campbell v. Acuff-Rose Music, Inc., 114 S. Ct. 1164 (1994).

249 Copyright law defines a relationship among people with respect to works of the mind. It provides the owner of copyright with a set of exclusive rights with respect to her work, and thus restrict the rights of others with respect to that work. Copyright law provides owners with the right to use the power of the state to enforce their exclusive rights, and thus grants them the power to license their work for a fee. "Copyright does more, then, than govern the passage of commodified exchanges across the boundary between the private and the public; it actually constitutes the boundary on which it stands." ROSE, *supra* note 245, at 141.

250 17 U.S.C. § 106.

251 "The interest of the copyright law is not in simply conferring a monopoly on industrious persons, but in advancing the public welfare through rewarding artistic creativity, in a manner that permits the free use and development of non-protectable ideas and processes." Computer Associates Int'l, Inc. v. Altai, Inc., 982 F.2d 693, 711 (2d Cir. 1992). For a critical discussion of this formula of copyright law, see Chon, *supra* note 1.

252 *See* Dreier, *supra* note 230, at 192-93.

253 *Id.*

254 Martha Woodmansee, *On The Author Effect: Recovering Collectivity*, 10 CARDOZO ARTS & ENT. L.J. 279, 280 (1992). Woodmansee describes the evolution of the "author" in late eighteen century Germany from a mere craftsmen involved in the creation of a book into the modern concept of the genius, which is based on the Romantic notion of the author. *See also* Martha Woodmansee, *The Genius and the Copyright: Economic and Legal Conditions of the Emergence of the "Author,"* 17 EIGHTEENTH-CENTURY STUD. 425 (1984) (economic and legal conditions of the emergence of the "Author" in eighteen century Germany).

255 L. Ray Patterson, *Copyright and "The Exclusive Right" of Authors*, 1 J. INTELLECTUAL PROP. L. 1, 37 (1993).

256 After all, the constitutional purpose of copyright law is to promote progress of science and the useful arts in society as a whole. *See* U.S CONST. art. I, § 8, cl. 8.

authorize certain uses of their works. In this sense, under copyright doctrine, the "public" is analogous to the market.[257] After all, a work derives its economic value from the market. The public becomes the universe of potential consumers, passively receiving works distributed upon the completion of the creation process. The "public" seldom is considered an active participant in the task of advancing progress. Since access to and use of information by the public is the ultimate goal of copyright law, restrictions on the access right of the public must be limited to the levels necessary to guarantee appropriate incentives for authors. Hence, copyright doctrine emphasizes public, i.e., market, distribution as its primary target.

2. Public/Private Dichotomy Challenged

The digitized environment challenges the public/private dichotomy—a concept central to traditional copyright law—in a number of ways. First, creation does not occur in isolation. Digitization challenges the concept of "creation" as an isolated process that occurs in the private sphere.[258] Patricia Marks Greenfield argues that

> "[t]he screen makes an individual's thought processes public, open to others who can also observe the screen. It makes writing into an easily observable physical object, which can be manipulated in various ways by other people. Thus, the computer makes the private activity of writing into a potentially public and social one."[259]

Furthermore, the potentially interactive nature of digital representation transforms the creation process into a dynamic process that involves exchanges.[260] This process is neither private nor public. When a subscriber posts a message on a BBS or in a newsgroup, that message becomes part of a platform accessible to all other subscribers. Such postings become potentially linked.[261] Furthermore, the elasticity of the digitized form allows subscribers to include the original message in their response, or to manipulate it and reconstruct a new version of the original message.[262] This response would become part of the feed of information on the BBS. Subscribers may manipulate files, combine files, link specific blocks of text, annotate text written by others, and create links between separate documents. The ability of subscribers to integrate their comments and revise messages posted on the BBS significantly changes the structure of information production. For example, integrated annotations are no longer external to the text and subsequently are no longer private. Instead, the annotations converge with the original text and thus are shared among all subscribers.[263] Compare, for instance, annotation of an article in the privacy of one's home, with annotation of a text on a BBS. Although both activities may occur in a private space, the annotation of an article on a BBS creates a new version of the text. Subsequent users may instantly read and further revise this "new" text.[264] The authoring of individual postings may therefore involve interactions with other postings on the BBS.[265] If one conceives a BBS as

257 The concept of the market as public may be confusing since the 'market' in the liberal state is usually perceived as private. The liberal definition of the market as 'private' supports minimizing the state's intervention in that sphere. But it is not unusual for the same social institution to be categorized either as private or as public depending on the perspective one takes.

258 *See* Landow, *supra* note 1, at 88-100; Peter Jaszi, *On The Author Effect: Contemporary Copyright and Collective Creativity*, 10 CARDOZO ARTS & ENT. L.J. 293, 319-20 (1992).

259 PATRICIA MARKS GREENFIELD, MIND AND MEDIA: THE EFFECTS OF TELEVISION, VIDEO GAMES, AND COMPUTERS 139 (1984); *see also* HEIM, *infra* note 277, 163-64 (discussing research which shows how computerized writing and writing on bulletin boards, becomes a communicative and cooperative endeavor).

260 Digitized systems tend to be more interactive than traditional works. This is due to the fact that manipulation of digitized works is relatively easy and inexpensive, and therefore allows input of users to be integrated into works. Non-digital media, such as printed text, film, sound recording, carry only a single form of the work at a time. *See* POOL, *supra* note 1, at 50.

261 When text is written on a wordprocessor and connected to a network, it functions in a hypertext environment, namely, it may be linked to other texts, converged with them, in whole or in pieces, and be placed in the "same psychic framework." *See* HEIM, *infra* note 277, at 160-61.

262 David Bolter's observation of a "newsgroup" demonstrates some of these issues: "The prose of these messages is almost as casual as conversation, precisely because publication in this medium is both easy and almost unrestricted. The transition from reader to writer is completely natural. The reader of one message can with a few keystrokes send off a reply. Readers may even incorporate part of the original message in the replay, blurring the distinction between their own text and the text to which they are responding." DAVID BOLTER, THE WRITING SPACE: THE COMPUTER, HYPERTEXT, AND THE HISTORY OF WRITING 29 (1991).

263 Furthermore, the fact that works are not created in isolation introduces a whole new set of interests to be considered. For instance, texts become more vulnerable and the power of writers to govern their meaning is weakened. Inasmuch as texts are vulnerable to changes and convergence with other texts, authors may no longer solely control their meaning. *See* LANDOW, *supra* note 1, at 72.

264 Landow perceives the ability to integrate one's comments into the text to be liberating and empowering for users. *Id.* at 178 ("As long as any reader has the power to enter the system and leave his or her mark, neither the tyranny of the center nor that of the majority can impose itself.").

265 This is made possible by the fact that digital media "removes the physical isolation of individual texts," and thereby allows the "virtual presence" of the author. *Id.* at 88. Such "virtual presence" of texts and authors makes writing in a digitized environment collaborative in two senses: one is the way in which readers and authors collaborate to create meaning, and the other is the way in which authors are collaborating with texts of other writers. *Id.* ("The first element of collaboration appears when one compares the roles of writer and reader, since the active reader necessarily collaborates with the author in producing a text by the choices he or she makes. The second aspect of collaboration appears when writing

a product like the *Playboy* court,[266] then it becomes a product written by subscribers who, through posting and interacting, have provided the meaning produced by the BBS.

Digitization furthers challenges the underlying copyright assumption that distribution necessarily occurs in public. Thomas Dreier argues that in a network environment "the public sphere on which copyright relies to such a great extent is eliminated, and little more is left than the umbilical cord of the connecting net-line which runs through what used to be the now-eliminated former public sphere."[267] Thus, by directly connecting private nodes of users, the network directly links the private spheres, and the "public" disappears.

It is not clear, however, that the public sphere really disappears in a networked environment. Even though some notions such as a "public place" or a "physical marketplace" are being transformed, the exact nature of this transformation still is unclear.[268] It seems that the idea of "public" as a "sphere" persists specifically as a range of actions, interests, or endeavors. The challenge is to understand the nature of this sphere, as shaped by digital technology, and to draw on its relationship to concepts of public and private.[269] The following issues emerge: What is the nature of the new sphere that involves interactions between individuals? Is this sphere new? Is it public? What would be the meaning of "private" in the absence of "public"? Would the concept of "private" persist in a world that is entirely connected?[270] How does the medium shape the relations among private individuals? How does

now with the virtual presence of all writers 'on the system' who wrote then but whose writings are still present.").

266 *Playboy*, 839 F. Supp. at 1556.

267 Dreier, *supra* note 230, at 193.

268 The use of the term 'sphere' may thus be misleading. As noted by Arendt, the difficulty in theorizing is partly due to the fact that these notions function as adjectives. *See* Hanna Fenichel Pitkin, *Justice, On Relating Private and Public*, POLITICAL THEORY, Aug. 1981, 327-28. Pitkin quotes Arendt, stating, " 'The Public' and 'The Private,' which makes them seem mysterious entities, seducing us into reification. Or else we must attach the adjectives to some general noun, used metaphorically: the public (or private) sector, sphere, domain, or realm; whereupon we are likely to fall victim to the unexamined connotations of our own metaphor." *Id.*

269 For the perception of the "public sphere" as a historical phenomena which was effected, among other things, by technological changes, *see* JURGEN HABERMAS, THE STRUCTURAL TRANSFORMATION OF THE PUBLIC SPHERE, (Thomas Burger trans., MIT Press 1989) (1962).

270 Heim, for instance, perceives a threat in the digitally linked text, to the psychic solitude of author and reader.

> A certain amount of solitude," he argues, "is requisite for creative thought, for any innovative thinking that reaches beyond a mundane familiarity with things and beyond the margins of current terms and fashions . . . The intimacy of thought and things, as it achieves presence in the contemplative framework of traditional reading and writing, is transformed by the new electronic element. The privacy of mind that must shift into secrecy is no longer inhabiting the same psychic framework as that of the handwritten page and the book."

See HEIM, *infra* note 277, at 222-23.

it effect social institutions such as "public debate" and the "private market"? What does "public" mean in a digitized context?

The threshold question turns on the fact that as human actions and social interactions gradually turn on-line and enter the "public" sphere, that sphere as we presently understand it undergoes a process of transformation. To conceptualize the "space" that consequently facilitates exchange among individuals thus becomes the challenge.

Finally, the availability of direct communication also transforms the role of users in forming the market of passive consumers. Direct communication allows users to reach out from their own private spheres, via the network, directly into the private spheres of authors who make their work available.[271] Consequently, works do not find their way to the marketplace, and they are not distributed to users at all. As such, users play an active role in retrieving information. Although not all methods of network distribution prescribe such a role,[272] this unique feature characterizes such on-line distribution methods as retrieval systems on data bases and FTPs.[273] This active role challenges the notion of the public as a "passive audience." In fact, it may actually transform the notion of a single "public" that can be characterized in a uniformed way, into an aggregated number of active individuals who act privately and separately. From the perspective of copyright doctrine, distribution under these circumstances is not to the public, but by the public; namely, by individual users.

3. The "Public" and the Digitized

The public/private distinction does not provide a useful analytical tool for redefining the meaning of copyright in a digitized context. This failure emanates from the inability of the distinction to facilitate a discussion of the particular interests and values that may be at stake in this environment. The classification of on-line uses into "private" and "public" is not based on any inherent nature of those uses. The private public distinction is a construct which reflects a political choice.[274] The decision of what is to be

271 Dreier, *supra* note 230, at 193.

272 See, for instance, distribution by mailing lists. For a discussion of different distribution mechanisms of on-line services see *supra* notes 233-237 and accompanying text.

273 For the legal significance of the active role of users under copyright law, see *supra* notes 77-78 and accompanying text.

274 For an excellent discussion of the centrality of the public/private distinction for lib-

considered private and public merely restates the conflict between rights of authors and the rights of users.[275] Determining what encompasses the "public" in a digitized context reflects a choice about the distribution of wealth and the flow of information.[276] To apply the current notion of "public" without considering the changing circumstances of the digitized environment, creates a bias in favor of copyright owners.

This analysis demonstrates how digitization undermines central assumptions of copyright law concerning the private and the public. Given the potential active role played by the public in the creation and dissemination of information, it may be necessary to reconsider the balance between the rights of copyright owners and the rights of users. The resulting question asks whether any justifications exist to give copyright owners a monopoly over all public uses. If, for instance, the creation process no longer occurs in private then perhaps there ought to be permissible public uses under copyright law. The more interactive the creation process becomes, the less authorial power is present.[277] Consequently, the integrated private self fades and "the rights of the author as a persistent self-identity also become more evanescent."[278] The private thereupon becomes more vulnerable, and the ability to identify distinct boundaries of a work and to protect its integrity declines. Furthermore, the private acting "publicly," also becomes more vulnerable to monitoring and control. When information is originated and received in the privacy of one's own node, the home becomes a gateway to the public. Considering private places which facilitate access to the public as "public" makes the private become more

eral theory and for the role of information see Boyle, *supra* note 238, at 1433-37; *see also* James Boyle, *The Anatomy of a Torts Class*, 34 AM. U. L. REV. 1003, 1023-34 (1985) (discussing the prominence of the public/private distinction in tort law); *see generally* Duncan Kennedy, *The Stages of the Decline of the Public/Private Distinction*, 130 U. PA. L. REV. 1349 (1982); Morton J. Horwitz, *The History of the Public/Private Distinction*, 130 U. PA. L. REV. 1423 (1982).

275 Boyle, *supra* note 238, at 1436-37 ("every dispute about property rights in information resolves itself into a dispute about whether the issue 'is' in the public or the private realm. This rhetoric of geographic placement suggests that we are engaged in a factual inquiry about the location of a preexisting entity within a well-charted and settled terrain. Nothing could be further from the truth. In fact, the process is one of contentious moral and political decisionmaking about the distribution of wealth, power, and information. Since there is in fact no intelligible geography of public and private, the attempt to resolve issues by drawing a line between the private and the public, 'gives us only an empty exchange of stereotypes which have considerable motive power and this may lead to undesirable results.' ").

276 *Id.*

277 MICHAEL HEIM, ELECTRIC LANGUAGE: A PHILOSOPHICAL STUDY OF WORD PROCESSING 12 (1987).

278 *Id.*

vulnerable.[279] If the "public" does not receive a work passively, but instead may interact with it, then the current power of authors to restrict public uses of their works deserves reconsideration. Finally, applying the notions of private and public must also account for changing expectations of what should remain in private and what should be a public experience.

IV. REPRODUCING CENTRALIZED STRUCTURES OF SOCIAL DIALOGUE

A. *Social Dialogue as a Meaning Making Process*

The previous discussion examined some conceptual difficulties involved in applying copyright law to digital technology. Using an inappropriate conceptual framework to analyze digital media fails to facilitate a thorough examination of the particular interests involved in this context. Consequently, the existing framework may create legal outcomes that are not necessarily socially desirable. This final section demonstrates how imposing contributory liability on BBS operators would centralize the potentially decentralized structure of social interactions in a digitized environment. From the perspective of meaning-making processes and social dialogue, imposing copyright liability on BBS operators may involve a high social cost. Before I discuss these costs, let me first describe what I mean by "meaning-making process" and "social dialogue."

The process of creating "works of the mind," such as works of art, intellectual works, or other expressions of the human's mind may be perceived in many ways. One way to look at it is as an activity that generates a product.[280] Such a perspective focuses on the labor involved in creating works and depending on their productive activity studies the different relations of social agents to their artifacts. Another way to view the creation process is as a process of expressing oneself.[281] This perspective focuses on relations of peo-

279 Interacting with text on one's own screen in the privacy of one's home may be perceived as 'public' if a text is originated in a remote site that allows access to the public. If the law defines as 'public' activities that we used to perceive as 'private,' then the copyright owner is granted the power to intervene in a sphere that we consider private. Enforcing copyright under those circumstances would involve invasion of privacy.

280 The Lockean labor-desert theory is based on the notion that property rights are acquired by mixing one's labor with an external object. JOHN LOCKE, THE SECOND TREATISE OF GOVERNMENT (P. Laslett ed., 1970); *see also* Wendy J. Gordon, *A Property Right in Self-Expression: Equality and Individualism in the Natural Law of Intellectual Property*, 102 YALE L.J. 1533 (1993).

281 The personality approach is based on the perception of the author's creation as an expression of the self. Hegel's theory of projection is based on three components: personality, embodiment in an external thing, and recognition by others. This theory stresses the

ple to objects that manifest their personal expression.[282] In sum, both of these conceptions focus on a singular social agent working alone, be it an individual or a corporation.

An alternative approach, which does not focus on the sole creator, perceives the creation process as an engagement in a social dialogue.[283] Under this view, various social agents are engaged in an ongoing process of constructing the meaning of symbols. Through this process social agents give meaning to the objective world and define their own identity.[284] The process of creating and communicating information may thus be perceived as a process of creating meaning.[285]

Postmodernist scholars emphasize the significance of dialogue over meaning as the essence of the human cultural being and the struggle over meaning making as the essence of political action in postmodernity.[286] Culture is thus perceived as an ongoing process of meaning-making through communicative activities, that is through social dialogue.[287] This sphere is both constituted by the individuals engaged in it and constitute them.[288] Social agents enjoy different levels of power to fix and transform meaning depending on their ability to access and control access to sources of signification and circulation.[289] The politics of meaning-making is a struggle to "fix and transform meanings in a world where access to the means and the medium of communication is limited."[290]

self actualization of the individual as a basis for property rights. *See* G. W. HEGEL, PHILOSOPHY OF RIGHT §§ 41-71 (T.M. Knox trans., 1965).

282 For an analysis of the labor theory and personality theory as a justification for copyright see Justin Hughes, *The Philosophy of Intellectual Property*, 77 GEO. L.J. 287 (1988).

283 *See* Rosemary J. Coombe, *Objects of Property and Subject of Politics: Intellectual Property Laws and Democratic Dialogue*, 69 TEXAS L. REV. 1853 (1991). For a critical examination of copyright law from the perspective of a postmodern notion of progress, see Chon, *supra* note 1.

284 The underlying assumption of this discussion is that the objective world receives its meaning through symbolic communication, and is, therefore, necessarily mediated by dialogic relations. Identities and ideologies are formed through dialogical interaction with shared cultural symbols. *See* MICHAEL GARDINER, THE DIALOGICS OF CRITIQUE, M.M. BAKHTIN AND THE THEORY OF IDEOLOGY (1992).

285 Chon, *supra* note 1, at 122-24.

286 Coombe, *supra* note 283, at 1861; Keith Aoki, *Adrift In The Intertext: Authorship and Audience "Recoding" Rights - Comment on Robert H. Rothstein, "Beyond Metaphor: Copyright Infringement and the Fiction of the Work,"* 68 CHI.-KENT. L. REV. 805, 835-37 (1993).

287 For a discussion on dialogic democracy see Drucilla Cornell, *Toward a Modern/Postmodern Reconstruction of Ethics*, 133 U. PA. L. REV. 291 (1985); Frank I. Michelman, *Law's Republic*, 97 YALE L.J. 1493 (1988).

288 This concept of dialogism derives from Mikhail Bakhtin. *See* T. TODOROV, MIKHAIL BAKHTIN: THE DIALOGICAL PRINCIPLE ix (W. Godzich trans., 1984); *See also* GARDINER, supra note 284.

289 Coombe, *supra* note 283, at 1860-61.

290 *See* Coombe, *supra* note 283, at 1860-61. Coombe argues that intellectual property laws suppress dialogic practices by "preventing us from using the most powerful, prevalent, and accessible cultural forms to express identity, community, and difference." Coombes,

BBSs may decentralize the power to generate meaning by facilitating direct communication among individuals.[291] The following discussion elaborates the significance of direct communication to social dialogue.[292]

B. *Direct Communication and Decentralization*

Intermediaries alone previously governed the link between creators and users of information. Intermediaries, such as publishers, broadcasters, and distributors play a central role in distributing non-digitized works. This is due, to a large extent, to the financial resources necessary to physically produce and distribute works in the physical media.[293] The author's economic dependency on an intermediary allows the intermediary to select which works will be published and consequently the message that ultimately will be conveyed. Thus, the economic structures of the printing press and

supra note 283, at 1855. Perhaps this overstates the matter. Some level of property rights in works are necessary to secure the freedom to express one's self. Yet, the scope of rights should be adjusted to accommodate free dialogue.

291 There are, however, other characteristics of BBSs that may decentralize semiotic power, and deal with representation in a digitized form. One such characteristic is the flexibility of digital representation, which allows meaning to be created by various social agents at various times. Another aspect of digital media that supports decentralization is interactivity. Digital representation enables users to act upon works. Consequently, the meaning of a work reflects not only a single meaning chosen by the author, but also mutual influences of many authors and users. *See generally* Landow, *supra* note 1.

292 The circumstances of *Playboy* and *Sega* do not provide the best context for discussing the effect of a liability rule on social dialogue. One reason is the type of information exchanged on those BBSs. Providing a forum for exchanging sexually explicit materials or creating a subculture of video game players may be perceived by some as worthless. Yet, there is no principled way for distinguishing those BBSs from a music forum on which music fans exchange music compositions or a newsgroup on literature in which members exchange poems and review articles. Copyright law does not make any aesthetic or moral judgments regarding the subject matter of copyright protection. Another disadvantage of the two opinions for demonstrating the social promise of digital technology is the focus of the courts on "lazy copying" of the copyrighted works, and the absence of any reference to other activities that may have taken place on the BBSs, such as: exchanging views; posting original materials; or interacting with information posted on the system (annotating, modifying, or adapting information to new uses and meanings). These cases are nonetheless significant for shaping the legal regime that applies to online services. If the liability rules of *Playboy* and *Sega* remain unchallenged, it could lead to a similar liability rule for all online service providers, and may shape the information flow in the form of the existing centralized structures of distribution. *Playboy* and *Sega* may suggest, however, that it is necessary to develop a more complex view of what would be considered a legitimate on-line use of copyrighted works.

293 *See* Kapor, *supra* note 1, at 94 (arguing that centralization in non-digitized environments was required for creation and distribution). Publishing a book, for instance, involves a threshold investment in preparing plates, setting the type, printing (which requires paper, ink, labor etc.), packaging, storage, physical delivery, and maintaining distribution and marketing channels (i.e., arranging the display of books in stores, organizing mail orders etc.). These costs have economies of scale, and therefore would be lower if publishing is centrally executed. Since most authors lack the financial resources required to publish and distribute their work to the public, intermediaries are necessary in order to execute distribution in a cost effective way.

of broadcasting concentrate control over the information flow and create a natural bottleneck.

Network dissemination may weaken the role played by intermediaries in conventional distribution by facilitating direct communication among users and authors. Networking allows works to be disseminated directly from the author to potential users without passing through the market. Consequently, information that did not reach the public through conventional distribution methods, because the intermediaries did not allow for it, may find its way through the network to a large number of people.

One may argue that digital networks would not weaken the role of intermediaries but only transform it. Users would become increasingly dependent on sorting agents that would select the relevant information from the mass of information available on-line. Screening agents therefore, would become major players in a digitized environment.

Yet, the significance of screening agents for social dialogue is different from that of publishers and broadcasters in the non-digitized environment. While the latter play a dual role of *selectors* and *providers* of information, screening agents of on-line information would only provide sorting services. Users may have the option of either accessing the information directly or using a sorting agent. Furthermore, the technical problem of how to manage the mass of information increasingly is being solved. Internet browsers are becoming more user-friendly, and allow users to access on-line information more easily.[294] The availability of powerful automated and potentially customized sorting devices would further weaken the power of intermediaries to control the dissemination of information.

The availability of direct communication transforms the structure of the information flow in several ways. First, the absence of a bottleneck may result in an information flow that is less hierarchical. Increasingly, authors and users have the capacity to decide which information they seek to communicate and receive instead of having centralized distribution systems impose this decision

294 One of the most dramatic changes in the Internet environment is the development of powerful browsers that allow users with no technical background to access information in a non-structured way. One example is the World Wide Web (WWW), which is a hypertext based system for finding and accessing Internet resources. The WWW defines a standard for data which allows users to turn almost any document (text, image, sound, video) into hypertext. The WWW is supported by several browsers that allow users to move between documents. *See* KROL *supra* note 5, at 515. Mosaic, for instance, is a computer program with a graphical user-friendly interface, that retrieves and interprets documents on the WWW, and allows users to navigate through on-line information. *See* Gary Wolf, *The (Second Phase of the) Revolution Has Begun*, WIRED, Oct. 1994, at 116.

upon them.[295] Second, decentralizing dissemination may diversify the information available to the public. Decentralized dissemination may allow more individuals to engage in a public discourse. Furthermore, it may allow for the expression of more views. Direct communication does not induce conformism in the way that conventional methods of distribution compel. The more expensive distribution becomes, the greater the need to recover the investment. Recovering investments by charging for copies of a work, collecting fees for its use, or selling commercials creates economic dependency. The need to guarantee success in the market increasingly dictates the content of works.[296] Television sponsors require programs to comply with the "public taste" as measured by the surveys; similarly, book publishers prefer manuscripts that will likely achieve economic success. As such, publishers and broadcasters tend to conform with standards that meet public approval. Direct communication may free dissemination from commercial sponsorship, increase diversity, and promote individualism. By weakening the role of intermediaries digitized dissemination causes private thoughts and public opinion to become more interconnected. This makes on-line services significant facilitators of social dialogue. This holds true even if on-line communication would not entirely replace other modes of communication and would merely provide an alternative route for reaching the public.

The availability of direct communication thus decentralizes social dialogue. With the expansion of available communication routes, more people may participate in the social dialogue over meaning. BBSs may allow more access to information and open the creation process for wider participation. Copyright law, however, relies on a bottleneck structure. The mechanism provided by

295 Consequently, one no longer needs to negotiate the content of her text before it gets published. *See* HEIM, *supra* note 277, at 219 ("Computerized word processing opens up power of self publishing in a print format which imitates mechanical print but does so without the complex specialization and capital investment necessary for mechanical print. The individual with a laser printer can create virtually typeset manuscripts, with the user controlling more of the final product. Self-publishing in this sense is more direct: no editor intervenes; the author has hands on the final look and wording of documents without having to answer to copy editors.") The ability of subscribers to express themselves by posting BBSs is socially significant in that it subverts the hegemony of current institutions that effect public opinion. *Id.* at 220. ("With word-processing capabilities, new journals and homemade publications are springing up in many disciplines, thus opening up possibilities of expression that challenge the hegemony of the established channels that connect private thought with public mind.").

296 Advertising affects social dialogue via the mass media both directly, through advertisers' content, and indirectly, by shaping the content created by the mass media. Advertisers encourage producers to create and disseminate content that would constitute a buying mood among reader and viewers, and to increase the media's potential reach by reducing partisanship. *See* EDWIN C. BAKER, ADVERTISING AND A DEMOCRATIC PRESS 62-66 (1994)

copyright law for protecting the economic interests of authors, assumes a centralized structure of distribution.[297] It aims at publishers, distributors, and broadcasters who may compete with the author in appropriating the potential market for her work.[298] This calls into question the suitability of copyright law for managing rights in a substantially different environment. As the following discussion demonstrates, imposing liability on BBS operators for copyright infringement committed by their users reproduces the centralized structure of control over information, and hence fails to take advantage of the opportunity for social dialogue.

C. *Contributory Liability and Reproducing the Information Bottleneck*

Imposing liability on BBS operators for copyright infringements committed by their users induces centralized mechanisms of creation and dissemination of information. Imposing liability on on-line providers would force these service providers to protect themselves against the prospects of large damages suits by detecting and monitoring the content posted on the BBSs.[299] Different levels of monitoring are necessary to guarantee compliance with different laws and rules. For example, enforcing a policy that allows non-commercial uses, or restricts access to certain types of information, may require a relatively limited intervention in the information flow.[300] On the other hand, detecting defamatory speech on-line would require higher levels of policing and intervention. Furthermore, some restrictions are more visible and unequivocal than others, such as restrictions involved in enforcing laws that prohibit child porn.[301]

297 In a centralized structure of distribution (such as print) copyright enforcement efforts focus on a relatively small distinguishable group of distributors. Potential infringers must have access to the relatively expensive equipment necessary for reproduction, and must utilize the commercial channels in order to distribute the infringing works. When copying and distribution are decentralized, copyright infringement becomes more difficult to trace, and rights become more difficult to enforce. Consequently, copyright law becomes less efficient as a mechanism for securing compensations for copyright owners. *See* Samuelson, *supra* note 1, at 324-25.

298 L. RAY PATTERSON & STANLEY W. LINDBERG, THE NATURE OF COPYRIGHT: A LAW OF USER'S RIGHTS 192 (1991).

299 In *Playboy* the defendant testified that he allowed subscribers to upload whatever they wanted onto the BBS, but "as soon as he was served with a summons and made aware of this matter, he removed the photographs from BBS and has since that time monitored BBS to prevent additional photographs of PEI from being uploaded." *Playboy*, 839 F. Supp. at 1554.

300 For instance, the NSFNET, which is part of the Internet, has a strict acceptable use policy which excludes any use that is not "in connection with research or instruction." *See* KROL, *supra* note 5, at 495. Another example for a moderate level of monitoring is restricting access to certain news groups. Some administrators may choose not to carry a certain news group on their server, thus denying their affiliates access to information posted on such boards. This type of selection may involve reviewing the news group at one point or over a period of time and determining whether it is of interest to the institution, users, etc. The decision to exclude a news group does not, however, prevent users from accessing this forum through other routes.

In the context of copyright law, in order to guarantee full compliance a BBS operator would have to impose a high degree of monitoring. Proprietary rights are not an attribute of the text itself, but instead define a relationship among people concerning the work.[302] Determining the status of proprietary rights in materials posted on a BBS thus would require further investigation. A BBS operator would have to determine in each case whether a subscriber copied or independently created a certain news text, poem or program. This places a heavy burden on BBS operators. Intellectual property involves a sophisticated body of law that is ambiguous with regard to digitized works.[303] To understand this body of law requires a degree of expertise. Determining whether any particular work infringes copyright requires some familiarity with the texts posted and the state of the art in that field. A similar need to exercise judgment regarding the text in order to implement compliance exists in the context of libel. Following accusations that its BBS posted anti-semitic remarks,[304] Prodigy attempted to monitor and remove obscene or offensive language from its public bulletin boards through the use of a computer program. This system, however, does not eliminate all defamatory language from the network. The reason for this stems from the fact that some statements are only defamatory in the context in which they are presented.[305] Furthermore, information posted on on-line services is dynamic

301 Yet, detecting pornography on-line may also depend upon the BBS operator's discretion. Governmental regulation of child pornography is subject to First Amendment consideration. The Court has recognized, however, the right of governments to regulate sex related materials that involve children. *See* New York v. Ferber, 458 U.S. 747 (1982); Osborne v. Ohio, 495 U.S. 103 (1990) (focusing on the harm caused to the children who participate in preparing the materials, and on the role of consumers of child pornography in financing the abuse of children). Enforcement of criminal and tort liability under state law may also involve problems of choice of law. John D. Faucher, *Let the Chips Fall Where They May: Choice of Law in Computer Bulletin Board Defamation Cases*, 26 U.C. DAVIS L. REV. 1045 (1993).

302 For instance, the owner of a literary work may prevent other people from copying her work, and other people have the legal duty to refrain from such use of the work. Property rights may also be defined as the entitlement to invoke governmental power to impose certain rights regarding the work.

303 Furthermore, since the Internet has no national borders, it is unclear which law would apply to works posted on, say, a news group. Which law of which nation should apply to a work that was uploaded in France to be posted on a BBS that runs all over the world and whose operator resides in the United States? If copyrights were allegedly infringed, where was the infringement committed?

304 This followed an out-of-court agreement between Prodigy and the Anti-Defamation League of B'nai B'rith, under which Prodigy undertook to search its system for remarks that are "grossly repugnant to community standards." *See* Matthew Goldstein, *Computer Communications Systems Raise Knotty Defamation Problems*, N.Y. L.J., Mar. 3, 1994, at 1.

305 *Id.*

and results from an ongoing exchange. A liability rule would therefore require a continuous process of detecting, selecting and excluding materials.

A liability rule would require BBS operators to detect copyright infringements by monitoring users. The required monitoring may unduly restrict public access to information. The court in *Cubby* explained this effect while analyzing the potential consequences of making booksellers liable for the content of books they carried:

> Every bookseller would be placed under an obligation to make himself aware of the contents of every book in his shop. It would be altogether unreasonable to demand so near an approach to omniscience. And the bookseller's burden would become the public's burden, for by restricting him the public's access to reading matter would be restricted. If the contents of bookshops and periodical stands were restricted to material of which their proprietors had made an inspection, they might be depleted indeed.[306]

The consequences of a liability rule in the context of on-line services not only restrict public access to information, but also restrict public access to means of expression and participation.

By encouraging monitoring, a liability rule would perpetuate the centralized structure of information production. BBS operators would involve themselves in editing and selecting the information posted. Alternatively, on-line services may respond to a liability rule by limiting the information sources they allow on-line, and by posting only the original information they own or are licensed to use. This would reduce the high cost of monitoring a multi-source information flow. Such a limitation would reduce the high cost of monitoring a multi-source information flow, but would jeopardize horizontal communication and open exchanges among users.

The cost of monitoring and the risk of liability may also reduce the incentives of BBS operators to provide on-line services. Individuals and small enterprises are likely to be discouraged by the prospects of liability, and may refrain from becoming on-line service providers. For instance, the prospects of liability may discourage Internet users from establishing newsgroups. Potential list moderators facing the prospects of liability would refrain from providing this valuable service. Thus, operating BBSs and moderating

306 *Cubby*, 776 F. Supp. at 139-40 (quoting Smith v. California, 361 U.S. 147, 152-53 (1959)).

newsgroups would become the sole terrain of large commercial entities who are able to cover the cost of liability.

A liability rule is likely to have a chilling effect on the types of exchanges among people. Subscribers will bear the brunt of the liability imposed on the BBS operators. Contractual arrangements with subscribers also may define the users responsibility for copyright infringement and for reimbursing operators for any expenses they may bear as a result of copyright infringement by subscribers. The prospects of liability and the costs of monitoring users would increase the price of BBS services to subscribers.[307] This would make access to information and to means of expression more expensive. The number of potential users who could purchase access to BBSs would likely decrease.

Alternatively, users may be required to provide proofs of copyright clearance.[308] This also may have a chilling effect on exchanges among people. Clearance would require users to receive a license for every use of any work on-line, regardless of whether the work is copyrighted or the use is non-infringing. This would give copyright owners extensive power over their works—powers that extend far beyond those granted under current copyright law. Clearance would also transform the special nature of on-line communication, which facilitates instant exchanges among people.

The overall effect of a liability rule reinforces the existing centralized structure of power. Consequently, imposing liability perpetuates the pre-digitized distribution structures and prevents BBSs from achieving its potential for becoming a mecca of social participation and decentralization of power.

D. *Defining the Boundaries of Accountability*

One can make an argument in favor of holding BBS operators accountable for infringing information posted on their boards. One such reason for liability derives from the high transaction cost involved in enforcing copyright individually on each user. The doctrine of contributory infringement seeks to provide copyright

307 The price of information would increase to reflect the prospect of liability, as premiums for insurance policies which cover copyright suits would be passed on to the consumer.

308 Such a proof may take the form of a statement that one is licensed to post the materials by the copyright owner. Copyright clearance may be technically administered by the network itself. A license may take the technical form of a code provided by the copyright owner, without which a work would not be allowed to enter the system. For a review of technical devices for on-line copyright management see *The IMA Proceedings*, 1 THE JOURNAL OF THE INTERACTIVE MULTIMEDIA ASSOCIATION INTELLECTUAL PROPERTY PROJECT 1 (1994).

owners with an effective way of protecting their works when it would be ineffective to merely impose liability on the actual infringer.[309] In this sense the BBS operator becomes a legitimate target for copyright owners who seek to prevent the unauthorized use of their works on-line. It would be prohibitively expensive and practically impossible for copyright owners to monitor specific uses of their works by individual users. It would be more efficient for copyright owners to make on-line service providers responsible for detecting copyright infringements. This would substantially reduce their transaction costs, due to the relatively small number of entities with whom they would have to deal. This would also be more efficient from a social perspective since in many cases BBS operators stand in the best position to prevent copyright infringements. BBS operators can monitor the information posted, and control it by excluding certain types of information from their board.[310] This line of argument fails to consider the social consequences of holding BBS operators accountable for the information they carry. The interest of copyright owners in efficiently enforcing their rights should receive protection only to the extent that it serves the ultimate goal of copyright law. Thus, if allowing owners to impose their rights unduly hinders access to information, then copyright policy cannot justify such a result.

Furthermore, as suggested above, digitized distribution may increase the ability to directly contract and technically restrict the use of information. It facilitates direct relationships with users, thus allowing owners to prevent the use of their works. This ability of copyright owners weakens the case for copyright protection. The economic rationale of copyright law justifies granting property rights to authors on the ground that it is necessary to remedy the market imperfection created by the "public good" nature of information.[311] Information is a "public good" in the sense that its use

309 *Sony*, 464 U.S. at 442 ("[T]he contributory infringement doctrine is grounded on the recognition that adequate protection of a monopoly may require the courts to look beyond actual duplication of a device or publication to the products or activities that make such duplication possible.").

310 Those considerations are reflected in Perrit's economic criterion for copyright liability. "Liability," he argues, "should depend upon whether the cost to the defendant of adopting adequate precautions is less than the probability of harm to the defendant multiplied by the gravity of the injury that might result." Henry H. Perrit, *Symposium: The Congress, The Courts and Computer Based Communications Networks: Answering Questions About Access and Content Control, Introduction*, 38 VILL. L. REV. 319, 325 (1993). Thus, Perrit argues, the sponsor of a list server should be liable for messages posted on the list, even though the list server was implemented through the e-mail, since she is in a better position to monitor the content than the e-mail operator.

311 "Public good" has two distinct characteristics: first, it is nonexcludable, namely, the marginal costs of exclusion are greater than the marginal costs of provision. It is therefore inefficient to exclude nonpayers. Furthermore, information is a public good in the sense that additional consumers do not reduce the supply available to others. *See* John Cirace, *When Does Complete Copying of Copyrighted Works for Purposes Other than for Profit or Sale Constitute Fair Use? An Economic Analysis of the Sony Betamax and Williams & Wilkins Cases*, 28 ST. LOUIS U. L.J. 647, 657 (1984) (defining public goods as "those whose consumption by individual A does not preclude consumption by B, C, D, or others.").

cannot be excluded efficiently. This gives rise to free-riding and reduces the incentives for investing in the creation of information. Since creators cannot reap the marginal value of their efforts, they would under-supply information.[312] Thus, the government seeks to secure optimal production of information by providing authors with a legal right to exclude, namely, the right to use the power of the state to exclude non-payers and to deter potential free-riders. Since exclusion becomes technically feasible and more efficient, the economic justification for copyright protection weakens.[313]

The case for imposing liability on BBS operators is not, however, purely economic. It also derives from a growing concern that BBSs undermine any sense of rule and order and threaten to run "out of control."[314] Many commentators worry about losing the sense of accountability for behaviors on the net.[315] This concern not only raises itself in the context of violating property rights, but also in the context of distributing child pornography and racist statements via computer networks. The deterioration of the centralized mechanisms for producing and distributing information in itself creates some level of discomfort.

Some level of accountability for on-line service providers may be necessary to prevent anarchy and to protect the system's function as a means of communication. Yet, the responsibility of on-line service providers for the information they carry should be minimized to the level necessary for the functional operation of the system. This does not mean that on-line systems would operate in total chaos. BBSs may maintain a policy that define the range of

312 *See* E. MACKAAY, ECONOMICS OF INFORMATION AND LAW 19-21 (1982); P.S. Menell, *Tailoring Legal Protection for Computer Software*, 39 STAN. L. REV. 1329 (1987); Menell, *supra* note 215; *see also* Landes & Posner, *supra* note 215.

313 This is particularly true given the cost imposed by the copyright system. This includes the cost of maintaining a registration system for copyrighted works and the cost of using the legal system to detect copyright infringements and to enforce the owners' rights. Copyright law also imposes a distorting effect on the market by creating a monopoly, thus increasing transaction costs. *See* Menell, *supra* note 215, at 1340.

314 An instinctual reaction of newcomers on the Internet is to look for a manager, a supervisor, or the board of directors of the network as a whole.

315 Helen Nissenbaum, for instance, maintains that accountability is systematically undermined in the computerized society, thus damaging an important value of society. "A community . . . that insists on accountability, in which agents are expected to answer for their work, signals esteem for high-quality work, and encourages diligent, responsible practices. Furthermore, where lines of accountability are maintained, they provide the foundations for just punishment as well as compensation for victims." Helen Nissenbaum, *Computing and Accountability*, COMMS. ACM, Jan. 1994, at 73.

acceptable uses. They may also be required to make their subscribers aware of copyright law, and warn them of potential infringements. The absence of a contributory infringement scheme does not mean that no framework for determining property rights should exist on the BBS. It does not imply that BBS operators should be exempt from liability for violations they themselves commit. Thus, if a BBS operator becomes actively involved in copying and posting copyrighted materials without authorization, she should be accountable for her infringing acts. Also, users should be accountable for any abuse of a copyrighted work not exempted under fair use.

Any approach to accountability in an on-line environment should seek to avoid the reproduction of centralized and hierarchical structures. It should discourage BBS operators from undertaking the role of supervisors and the power of inspectors over the information flow.

V. Conclusion

The task of defining the meaning of copyright law on the information superhighway will increasingly occupy courts and legislators in the next couple of years. This article argues that rather than examining digital technology from the perspective of copyright law, copyright law must be examined from the perspective of digital technology. The debate over the future of copyright law should not regard digital technology as a threat to the monopoly of copyright owners, but instead as a challenge to the current structure of creation and dissemination of information. This debate should recognize the social promise of digital technology for decentralizing power and democratizing social interactions. It should recognize the necessity of securing incentives to create without perpetuating the hierarchical structure of creation and dissemination of information.

This article suggests that the digitized environment challenges fundamental copyright principles. Continuous use of the conceptual framework of copyright law may shift attention from the actual interests at stake. Any copyright reform should reexamine the balance between owners and users and consider the new interests and values a digitized environment presents. The debate over the definition of copyright should consider what structure of communication and social dialogue does the current system promulgate. Further, the debate must explore how the current regime effects the developments and uses of technology.

It is manifestly clear that courts should not be assigned the role of adjusting copyright law to digitized media.[316] The current copyright framework confines the courts. As stated by the Working Group on Intellectual Property Rights:

> It is difficult for intellectual property laws to keep pace with technology. When technological advances cause ambiguity in the law, courts rely on the law's purposes to resolve that ambiguity. However, when technology gets too far ahead of the law, and it becomes difficult and awkward to apply the old principles, it is time for reevaluation and change.[317]

The challenges that digital technology presents to copyright law require reexamining the fundamental principles of that law. This critical examination of the means by which copyright law regulates digital technology involves political and distributive choices. As we approach the quandary of applying the concepts of copyright to the digitized environment, we ought not adopt a narrow mechanistic approach that merely tweaks, pulls, and tugs to make the old shoe fit. Instead, we must embrace a public debate focusing on the ends of copyright law before we determine the particular modes of protection that ought to apply to the digitized environment.

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316 For a different view see Arthur R. Miller, *Copyright Protection For Computer Programs, Databases, and Computer-Generated Works: Is Anything New Since CONTU*, 106 Harv. L. Rev. 977 (1993). Miller argues that copyright law is perfectly capable of managing rights in information technologies. Copyright principles, he argues, are "flexible enough," and the "existing framework can be used to achieve the historic objective of providing incentives for producing works while simultaneously promoting their dissemination." *Id.* at 980-81. While Miller acknowledges the "astonishing technological and social developments," *id.* at 980, he believes that the eighteenth century copyright principles are appropriate for this technology. This approach must be examined with skepticism and caution. It overlooks the way in which adopting the CONTU recommendations and applying copyright law to computer programs affected the path of technological development. It examines digital technology from the perspective of copyright law, rather than critically examining copyright law from the perspective of digital technology and the new meaning it gives to creation and dissemination of information.

317 IITF Green Paper, *supra* note 13, at 120.