Leslislating in the Face of New Technology: Copyright Laws for the Digital Age

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Abstract

This Note discusses the agendas and proposals of different countries with respect to copyright regulation in the digital age. Part I discusses the present state of copyright law in the United States, the United Kingdom, and the European Community. Part I also examines laws that have developed in response to new technology. Part II considers the varying commentaries and proposals addressing the promulgation of copyright law for digital technology. Part III argues that the United States, the United Kingdom, and the European Community should take their existing copyright concepts and expand them to fit with digital technology. In addition, Part III maintains that lawmakers should consider copyright infringement liability standards which are based on an OSP’s knowledge of and ability to control infringing works appearing on online services. Finally, this Note concludes that promulgation of copyright laws relating to the Internet is crucial to the growth of online services and a necessary prerequisite to a global information infrastructure.
Property law has, to be sure, undergone constant change. . . . Its enduring mix of old and new, rife with uneasy tensions, reflects more than an institution that has evolved over centuries and across cultures; it reflects as well two often conflicting objectives—promoting stability and accommodating change—that property systems must serve.1

INTRODUCTION

Computer technology has advanced to a point where individuals on opposite sides of the world may instantaneously exchange information.2 By accessing online services3 and the Internet4 through accounts with online service providers5

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3. See BARAN, supra note 2, at 21-31 (explaining online services). Commercial online services, like America Online ("AOL") and CompuServe, utilize a centralized computer system or a number of closely linked systems to serve subscribers. Id. at 22. An online service is not a global network. Id. An online service, however, may provide a user with access to the Internet. John Carmichael, Comment, In Support of The White Paper: Why Online Service Providers Should Not Receive Immunity From Traditional Notions of Vicarious and Contributory Liability for Copyright Infringement, 16 Loy. L.A. ENT. L.J. 759 n.3 (1996). Online services offer a variety of features, including access to newspapers, magazines, financial reports, sports information, and shopping services. BARAN, supra note 2, at 23. In addition, users of online services may participate in discussions with other subscribers. Id.

4. See BARAN, supra note 2, at 37-38 (describing Internet). In the late 1960s, U.S. military researchers first developed the concept of the Internet when they attempted to link computers from different areas of the United States. Id. at 38. The Internet evolved from this idea into a "large and very free-form association of independent networks and computer systems . . . ." Id. at 37-38. Today, through a mere telephone connection, a computer user can access the Internet and freely move through its world-
"OSPs"), individuals may use computers to obtain journals, articles, world news, and even transfer funds in their bank accounts. The acts of uploading and downloading further this exchange of information. This heightened access to information, which can marketably improve one's quality of life, also creates a potential for abuse of intellectual property rights.

Bulletin board service ("BBS"), online service, and Internet subscribers have used the new technology by illegally placing, without the copyright owner's authorization, copyrighted material worldwide collection of networks and systems. FT LAW & TAX, INTERNET LAW AND REGULATION 1 (Graham J.H. Smith ed., 1996) [hereinafter INTERNET LAW]. Because of the relative ease of obtaining information from computer systems all over the world, the Internet is becoming a major medium of communication with an estimated 20 million users. BARAN, supra note 2, at 36-37.


6. BARAN, supra note 2, at 28. Computer users get "online" by connecting their computers to a computer network via telephone lines. Id. at 18. Users may connect to online services that furnish access to information databases that contain the texts of thousands of newspapers, magazines, and journals. Id. at 28.

7. Id. at 18. Uploading is the process by which a user takes files from her computer and transfers them to another computer system for access by other subscribers. Id.

8. Id. Users may download programs and files from the online services. Id. Downloading is the process of obtaining information from another computer and transferring it to one's own computer. Id.

9. Id.

10. See White Paper, supra note 2, at 8-9 (stating that users of new information services will better their lives through heightened access to entertainment, arts and humanities, education, and political information).

11. See id. at 10 (highlighting risks to intellectual property rights when works are placed on electronic information systems); see also CRAIG JOYCE ET AL., COPYRIGHT LAW 1 (3d ed. 1994) (defining intellectual property as "products of the mind" which are protected by law).

12. See BARAN, supra note 2, at 19 (discussing bulletin board services). Computer owners possessing the essential communications software and hardware may operate a bulletin board service ("BBS"). Id. BBSs are used for electronic posting of announcements and correspondence between users. Id. A BBS's capacity for information is that of the computer host. Id. Subscribers to a BBS access the system through a computer telephone modem. Id. BBS operators charge users a fee for access to the system which allows users to either upload or download information. Id. BBSs operate on a smaller scale than online services, which may consist of hundreds of BBSs. Id. at 23. See also Playboy Enters., Inc. v. Frena, 839 F. Supp. 1552, 1554 (M.D. Fla. 1993) (explaining operation of BBS).
als online for other users to download.13 The users, by uploading and downloading unauthorized materials, are denying copyright owners just compensation for public access to their works.14

The Internet is a worldwide entity,15 and, as such, copyright infringement on this system is an international problem.16 Accordingly, governments are considering the prospect of reaching international accord on the protection of intellectual property.17 The exclusive right to digital transmissions18 of copyrighted works and the distribution of copyrighted works were among the issues that nations considered at the December 1996 meeting of the World Intellectual Property Organization19 ("WIPO").20


14. See Baran, supra note 2, at 144 (stating that authors are concerned with getting just rewards for their efforts when their works appear on information networks).

15. See Internet Law, supra note 4, at 1 (acknowledging that Internet, with networks all over world, has undefinable boundaries).

16. See White Paper, supra note 2, at 130 (noting that international rules for protection of intellectual property must be promulgated in order to ensure successful development of worldwide information superhighway).


18. See Baran, supra note 2, at 17 (defining digital information as information transmitted in digital form so that computers may be able to receive it). A unique feature of digital transmissions enables an individual who receives the data to communicate a response to the sender. Id.


20. Peter H. Lewis, 160 Nations Meet to Weigh Revision of Copyright Law, N.Y. Times, Dec. 2, 1996, at Al. 160 nations gathered, in Geneva, Switzerland, from December 2 to 20, 1996, to discuss rights obtained by copyright in an age when protected works may be digitized and distributed over worldwide computer networks. Id. As a result of the conference, two treaties were developed with general provisions encompassing the distribution of works over the Internet. Seth Scheisel, Global Agreement Reached to Widen Law on Copyright, N.Y. Times, Dec. 21, 1996, at Al; see World Intellectual Property Organization Copyright Treaty, adopted by Diplomatic Conference on December 20, 1996
Commentators question whether the United States is prematurely considering international legislation regarding copyright infringement on the Internet. Those in favor of postponing international deliberation on the issue argue that lawmakers in the United States have not yet completed legislation on the subject. While Congress has not yet finalized intellectual property legislation relating to the Internet and digital technology, proponents of international deliberations maintain that considering the issues in an international forum is a worthwhile endeavor. Moreover, in order to ensure the success of the information superhighway, legal practitioners contend that legislators need to address the guidelines for international intellectual property protection at the outset of the information superhighway's development.


23. BNA, Inc., supra note 21, at 35.

24. See BNA, Inc., supra note 17, at 392 (discussing comments that consideration of digital agenda by WIPO is not premature). Though advocating debate for an international digital agenda, one scholar stated that it is not the proper time to "lock ourselves into a particular legal regime either nationally or internationally." Id.

25. See BARAN, supra note 2, at xiii (stating that information highway is quickly evolving technology). The Information superhighway, with the Internet as one of its foundations, is still in the early stages of development. Id.

26. See White Paper, supra note 2, at 130 (noting that at February 1995 G-7 Ministerial Meeting on Global Information Infrastructure, Ministers spoke in favor of early consideration of intellectual property issues in order to ensure adequate development
This Note discusses the agendas and proposals of different countries with respect to copyright regulation in the digital age. Part I discusses the present state of copyright law in the United States, the United Kingdom, and the European Community. Part I also examines laws that have developed in response to new technology. Part II considers the varying commentaries and proposals addressing the promulgation of copyright law for digital technology. Part III argues that the United States, the United Kingdom, and the European Community should take their existing copyright concepts and expand them to fit with digital technology. In addition, Part III maintains that lawmakers should consider copyright infringement liability standards which are based on an OSP's knowledge of and ability to control infringing works appearing on online services. Finally, this Note concludes that promulgation of copyright laws relating to the Internet is crucial to the growth of online services and a necessary prerequisite to a global information infrastructure.

I. COPYRIGHT LAW IN THE UNITED STATES, THE UNITED KINGDOM, AND THE EUROPEAN COMMUNITY

Copyright law gives individuals commercially valuable rights in their creations. Copyright legislators from all over the world have always confronted a common problem of maintaining such rights in the face of new technologies for reproduction and distribution of works. The United States, the United Kingdom, and the European Community have all developed systems of copyright that have grown with technological advances.

27. See JOYCE ET AL., supra note 11, at 2 (explaining that copyright law gives copyright owners right to use and authorize use of copyrighted works).

28. See id. at 1 (stating that copyright law is form of legal adaptation to new technologies of reproduction and dissemination of human expression); PETER GROVES, COPYRIGHT AND DESIGNS LAW 1 (1991) (explaining that technological changes constantly distort legislative framework of copyright law).

29. See, e.g., Green Paper Follow-Up, supra note 17, COM (96) 586 Final at 4 (stating that European Community has developed copyright legislation in response to changing technology).
A. Copyright Philosophies

Countries that embrace the economic rationale for copyright law, like the United States and the United Kingdom,\textsuperscript{30} base copyright legislation on an individual's economic incentive to create copyrightable works.\textsuperscript{31} A number of countries\textsuperscript{32} recognize, in addition to economic rights, creators' moral rights in their works.\textsuperscript{33} Moral rights, which are based on authors' rights to control the moral character of their works,\textsuperscript{34} provide creators with additional controls over their materials which economic rights do not offer.\textsuperscript{35}

1. Economic Model of Copyright Law

In order to financially reward and stimulate creators to develop works, copyright law grants them property rights\textsuperscript{36} in their creations.\textsuperscript{37} The property rights, however, limit public access to the copyrighted materials\textsuperscript{38} and may deprive the public of the benefits associated with dissemination of copyrighted works.\textsuperscript{39} Consequently, the central problem legislators face when promulgating economic-based copyright law is finding a balance between the copyright holder's incentive to create and the public's right to access the copyrighted works.\textsuperscript{40}

\begin{itemize}
  \item[30.] See A. Michael Warnecke, Note, The Art of Applying the Fair Use Doctrine: The Postmodern-Art Challenge to the Copyright Law, 13 REV. LITIG. 685, 697 (1994) (stating that U.S. Constitution sets forth language mandating that copyright laws be structured to provide creators with economic rewards for their works); Groves, supra note 28, at 1 (stating that U.K. copyright law exists to address economic problem of providing individuals with incentives to create).
  \item[31.] Warnecke, supra note 30, at 697.
  \item[32.] See Joyce et al., supra note 11, at 610 (explaining that several countries recognize moral rights); Dan Rosen, Artists' Moral Rights: A European Evolution, An American Revolution, 2 CARDOZO ARTS & ENT. L.J. 155, 156 (discussing development of moral rights in France, Italy, and Germany).
  \item[33.] Christine L. Chinni, Droit D'auteur Versus the Economics of Copyright: Implications for American Law of Accession to the Berne Convention, 14 W. NEW ENG. L. REV. 145, 149 (1992).
  \item[34.] Joyce et al., supra note 11, at 610.
  \item[35.] Id.
  \item[37.] Warnecke, supra note 30, at 698.
  \item[38.] Joyce et al., supra note 11, at 18.
  \item[39.] Id.
\end{itemize}
In the face of technological advances, legislators analyze copyright law to assure that it continues to maintain a balance between public access to works and the economic incentives for authors to create.\textsuperscript{41} From its beginnings, the law of copyright had to respond to changes in technology.\textsuperscript{42} The Internet, like the printing press, represents another technological advance which the law must address.\textsuperscript{43}

2. Moral Rights Model of Copyright Law

A country's recognition of moral rights leads to a copyright system that is more protective of authors than Anglo-American systems.\textsuperscript{44} Unlike copyright law that is premised solely on the economic rights of an artist, a moral rights regime allows creators to retain certain rights in their creations even after they have transferred ownership of their economic rights to others.\textsuperscript{45} Moral rights address the inalienable and natural rights of artists that are related to their characters and may supersede economic interests in the work.\textsuperscript{46}

\textsuperscript{41} See White Paper, supra note 2, at 7, 14 (stating that copyright law has to respond to new technologies and maintain existing balance between incentive to create and dissemination of works); Groves, supra note 28, at 1 (explaining that legislation needs to accommodate technological changes to maintain proper tradeoff between public access to works and incentive to create).

\textsuperscript{42} See Joyce et al., supra note 11, at 1 (stating that idea of responding to new technologies in reproduction and distribution of expression was present in sixteenth century). In England, in 1476, William Caxton advanced the method of using the printing press for large-scale publishing of books. Id. at 6. In 1534, the Crown, fearing advancement of radical religious and political philosophies, issued a royal decree requiring individuals to obtain a license and official censor approval before publishing. Id. This decree led to a publishing monopoly by the Stationer's Company, a group that upheld the Crown's agenda. Id. The monopoly ended in 1694 and, in 1710, Parliament passed the first copyright act, the Statute of Anne, 8 Anne, c. 19, which inevitably reduced the publishers' power and instead implemented protection based on the authors' rights. Id.

\textsuperscript{43} See White Paper, supra note 2, at 12-13 (stating that new information age requires consideration of changes and adaptations to present copyright law); Groves, supra note 28, at 1 (explaining that rise of computer age has already caused changes in copyright law). The advent of the personal computer resulted in the creation of law regarding copyright protection of software and computer databases. Id.; see, e.g., Computer Assocs. Int'l, Inc. v. Altai, Inc., 982 F.2d 698, 702 (2d Cir. 1994) (stating that literal elements of computer programs are protectable by copyright law).

\textsuperscript{44} Chinni, supra note 33, at 149.

\textsuperscript{45} Joyce et al., supra note 11, at 610.

\textsuperscript{46} Id.
the right of paternity,\textsuperscript{47} the right of integrity,\textsuperscript{48} and the disclosure\textsuperscript{49} right.\textsuperscript{50} The personal nature of these rights may prevent a work from completely entering the public domain because a creator may forbid individuals from using the work in a manner inconsistent with the creator's moral philosophy.\textsuperscript{51}

The Berne Convention for the Protection of Literary and Artistic Works\textsuperscript{52} ("Berne Convention"), provides for moral rights in Article 6bis\textsuperscript{53} and requires all signatories to protect moral rights in their domestic laws.\textsuperscript{54} The United States, a member of the Berne Convention, does not explicitly recognize moral rights.\textsuperscript{55} U.S. lawmakers have, however, addressed moral rights

\begin{enumerate}
\item \textsuperscript{47} See White Paper, supra note 2, at 145 (explaining right of paternity as right to be named as author of work).
\item \textsuperscript{48} See Rosen, supra note 32, at 161 (describing right of integrity as artists' right to prevent distortion or alteration of their creations).
\item \textsuperscript{49} See Joyce et al., supra note 11, at 611 (defining right of disclosure as right to specify conditions of presentation of work to public).
\item \textsuperscript{50} Rosen, supra note 32, at 158-63.
\item \textsuperscript{51} Chinni, supra note 33, at 156.
\item \textsuperscript{52} Berne Convention for the Protection of Literary and Artistic Works, as revised at Paris 1971, Cmnd 5002, at 3 [hereinafter Berne Convention]. See Joyce et al., supra note 11, at 984 (discussing Berne Convention). The Berne Convention is a multilateral copyright convention that was first established in 1886 in Berne, Switzerland. Id. The Paris Act of 1971 revised the current treaty. Id. at 984-85.
\item \textsuperscript{53} Berne Convention, supra note 52, art. 6bis, at 6-7. Article 6bis provides:
\begin{enumerate}
\item Independently of the author's economic rights, and even after the transfer of said rights, the author shall have the right to claim authorship of the work and to object to any distortion, mutilation or any other modification of, or other derogatory action in relation to, the said work, which would be prejudicial to his honor or reputation.
\item The rights granted to the author in accordance with the preceding paragraph shall, after his death, be maintained, at least until the expiry of the economic rights, and shall be exercisable by the persons or institutions authorized by the legislation of the country where protection is claimed. However, those countries whose legislation, at the moment of ratification of or accession to this Act, does not provide for the protection after the death of the author of all the rights set out in the preceding paragraph may provide that some of these rights may, after his death, cease to be maintained.
\item The means of redress for safeguarding the rights granted by this Article shall be governed by the legislation of the country where protection is claimed.
\end{enumerate}
\item \textsuperscript{54} Joyce et al., supra note 11, at 611.
\item \textsuperscript{55} Id.; see White Paper, supra note 2, at 145-46 (explaining that when United States joined Berne Convention, Congress determined that existing remedies under statutory and common law provided de facto moral rights protection).
in U.S. federal and state legislation.\textsuperscript{56}

\section*{B. U.S. Copyright Law}

The U.S. Constitution states that Congress, in order to promote the advancement of intellectual creations, has the power to provide authors\textsuperscript{57} with exclusive rights over their works.\textsuperscript{58} The U.S. Supreme Court has interpreted this Constitutional provision as requiring a grant of valuable rights to authors so that authors may be induced to create and share their works with the public.\textsuperscript{59} Congress has attempted to apply the Constitutional requirements by passing federal copyright acts in 1790,\textsuperscript{60} 1909,\textsuperscript{61} and 1976.\textsuperscript{62}

\subsection*{1. Copyright Doctrine}

The Copyright Act of 1976\textsuperscript{63} ("Act of 1976") is the latest major Congressional effort to codify copyright law in the United States.\textsuperscript{64} In order to foster an incentive to create\textsuperscript{65} intellectual property, the Act of 1976 gives copyright owners certain com-

\begin{itemize}
\item \textsuperscript{56} See \textit{White Paper}, supra note 2, at 146 (explaining that legislators have provided for protection of moral rights in both federal and state laws).
\item \textsuperscript{57} See \textit{Goldstein v. California}, 412 U.S. 546, 561 (1973) (maintaining that authors are "originators" who may produce "any physical rendering of the fruits of creative intellectual or aesthetic labor.").
\item \textsuperscript{58} U.S. \textsc{const.} art I, § 8, cl. 8. Article I, section 8, clause 8 states that Congress shall have the power to "promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries." \textit{Id.}
\item \textsuperscript{59} See \textit{Washingtonian Publishing Co. v. Pearson}, 306 U.S. 30, 36 (1939) (stating that copyright is "intended definitely to grant valuable, enforceable rights to authors... to afford greater encouragement to the production of literary works of lasting benefit to the world.").
\item \textsuperscript{60} See \textit{Joyce et al.}, supra note 11, at 10 (stating that first U.S. copyright act, passed in 1790, gave authors right to capitalize on maps, charts, and books).
\item \textsuperscript{61} \textit{See id.} (explaining that after revisions in 1831 and 1870 to act of 1790, Copyright Act of 1909 ("1909 Act") expanded scope of copyright protection in United States by further defining subject matter protected, rights and remedies).
\item \textsuperscript{62} \textit{See id.} at 11 (stating that in 1955, Congress, finding provisions of 1909 Act to be unworkable, authorized copyright law revision project which finally resulted in Copyright Act of 1976).
\item \textsuperscript{64} See \textit{Joyce et al.}, supra note 11, at 12-13 (explaining effect of Act of 1976).
\item \textsuperscript{65} \textit{See Carmichael}, supra note 3, at 765 (stating that Congress granted limited monopoly rights to authors in order to give future authors incentive to produce new works); \textit{see also Playboy}, 839 F. Supp. at 1555 (maintaining that Act of 1976 gives copyright holders control over almost all activities of conceivable commercial value).
\end{itemize}
commercially valuable rights over their works. In addition, individuals who violate a copyright owner's statutorily granted rights are liable for copyright infringement.

Congress granted copyright owners the exclusive rights to reproduce, prepare a derivative work of, distribute, perform, display, and in the case of sound recordings, perform by means of a digital transmission, their copyrighted material. Individuals infringe a copyright if they perform or authorize another to perform any of the above activities without the copyright holder's consent. In order to establish copyright infringement, a plaintiff must prove ownership of a copyright in the work at issue and the defendant's copying of that protected expression. A copyright owner may establish proof of owner-

66. 17 U.S.C. § 106 (1997). A copyright owner has the exclusive right:
   (1) to reproduce the copyrighted work in copies...; (2) to prepare derivative works based upon the copyrighted work; (3) to distribute copies... of the copyrighted work to the public...; (4) to perform the copyrighted work publicly; (5) to display the copyrighted work publicly; and (6) in the case of sound recordings, to perform the copyrighted work publicly by means of a digital audio transmission.

Id.


70. 17 U.S.C. § 106(3) (1997). The distribution right encompasses publication of copyrighted works. See 17 U.S.C. § 101 (1997) (defining "publication" as "distribution of copies... of a work to the public by sale or other transfer of ownership, or by rental, lease, or lending."). The Act of 1976 further states, "[a] public performance or display of a work does not of itself constitute publication." Id.; see White Paper, supra note 2, at 215 (stating that courts' interpretations of publication offer guidance as to what constitutes distribution to public).


76. See 17 U.S.C. § 201(d) (1997) (stating that copyright ownership gives individuals right to exploit copyrighted work, sue others for infringement, and license acquired rights in whole or in part).

ship by service upon the court of certificates of copyright registration.\textsuperscript{78} When there is a lack of direct evidence of copying in infringement cases,\textsuperscript{79} a plaintiff must circumstantially prove copying by showing that a defendant had access to the copyrighted work\textsuperscript{80} along with evidence of substantial similarity\textsuperscript{81} between the copyrighted expression and the allegedly infringing material.\textsuperscript{82}

2. Infringement Standards Applied to OSPs

In recent cases addressing OSP liability for copyright infringement, district courts easily found ownership and copying of the copyrighted works.\textsuperscript{83} The courts, however, labored more on the question of the violation of the copyright owner's exclusive rights and applied different standards of infringement to the defendants in each case.\textsuperscript{84} The varying approaches of the courts reflect the U.S. copyright law's different liability standards for

\textsuperscript{78} See, e.g., Sega, 857 F. Supp. at 686 (finding that presentation of registration certificates amounts to \textit{prima facie} evidence of plaintiff's copyright ownership in video game programs); Playboy, 839 F. Supp. at 1556 (holding that copyright registration certificate constituted \textit{prima facie} evidence of ownership). Owners of a copyright register their claims by depositing an application, a fee, and copies of their work with the U.S. Copyright Office. 17 U.S.C. § 408 (1997). The Playboy court explained that the burden shifts to the defendant after plaintiff submits \textit{prima facie} evidence of ownership in the form of such copyright registration. Playboy, 839 F. Supp. at 1556.

\textsuperscript{79} See Joyce et al., supra note 11, at 692 (stating that direct evidence of infringement is almost always not available).


\textsuperscript{81} See Nimmer & Nimmer, supra note 77, at § 13.03[A] (explaining substantial similarity).

It is clear that slight or trivial similarities are not substantial and are therefore non-infringing. But it is equally clear that two works may not be literally identical and yet, for purposes of copyright infringement, may be found substantially similar. The problem, then, is one of line drawing. Somewhere between the one extreme of no similarity and the other of complete and literal similarity lies the line marking off the boundaries of "substantial similarity."

\textit{Id.} (footnotes omitted).

\textsuperscript{82} Joyce et al., supra note 11, at 692-93.

\textsuperscript{83} See, e.g., Religious Tech., 907 F. Supp. at 1367 (showing simple conclusion of ownership and copying of copyrighted material); Sega, 857 F. Supp. at 686 (illustrating court's finding of ownership and copying); Playboy, 839 F. Supp. at 1556 (explaining court's determination of ownership of copyright and copying of protected works).

\textsuperscript{84} Compare Religious Tech., 907 F. Supp. at 1381 (supporting plaintiff's theory of contributory infringement, but rejecting claims of direct and vicarious infringement) with Sega, 857 F. Supp. at 688 (stating that plaintiff established likelihood of success on
direct, contributory, and vicarious infringement.

a. Direct Infringement

Individuals directly commit copyright infringement when they violate any of the exclusive rights of the copyright owner enumerated in section 106 of the Act of 1976. The court in Playboy Enterprises, Inc. v. Frena relied on the standard of direct copyright infringement to hold the defendant OSP liable. The defendant in Playboy operated a computer BBS. The plaintiff maintained and the defendant admitted that the BBS displayed and made 170 computerized images of Playboy Enterprises, Inc.'s ("Playboy") copyrighted photographs available for users to download. The plaintiff's infringement claim was based on BBS users downloading of copies of the photographs to their personal computers without Playboy's authorization.

merits for its claims of direct and contributory infringement) and Playboy, 839 F. Supp. at 1559 (relying solely on direct infringement to hold defendant liable).

85. See 17 U.S.C. § 501(a) (1997) (stating that individuals are directly liable for copyright infringement when they violate exclusive rights of copyright owners).

86. Internet Law, supra note 4, at 13.

87. See Shapiro, Bernstein & Co. v. H.L. Green Co., 316 F.2d 304, 307 (2d Cir. 1963) (outlining that defendants may be liable for vicarious infringement if they are able to control conduct of infringers and obtain direct financial benefit from infringing activities).

88. See White Paper, supra note 2, at 115 (stating that U.S. copyright law allows courts to find defendants directly, contributorily, or vicariously liable for copyright infringement).


91. See Religious Tech., 907 F. Supp. at 1373 (explaining that direct infringer personally commits violation of one of exclusive statutory rights granted to copyright holder). The court distinguished direct infringement from contributory and vicarious standards of liability where third persons violate the exclusive rights of the copyright owner. Id.


93. Id. at 1554.

94. Id. The defendant admitted that his customers downloaded each of the 170 images. Id. The defendant, however, contended that he never uploaded the images onto the BBS. Id.

95. Id. The court in Mai Systems Corp. v. Peak Computer, Inc., held, "copying for purposes of copyright law occurs when a computer program is transferred from a permanent storage device to a computer's RAM [random access memory]." 991 F.2d 511, 518 (9th Cir. 1998). A computer's RAM temporarily records data and loses it when a user turns the computer off. See Apple Computer, Inc. v. Formula Int'l Inc., 594 F. Supp. 617, 622 (C.D. Cal. 1984) (discussing transient properties of RAM). In contrast to
The court maintained that the defendant violated the plaintiff's exclusive right to distribute the works to the public. The court held that it was enough that the defendant supplied a service that stored infringing copies of the work and that the defendant was still liable even though he did not make the copies himself. The court also determined that the defendant infringed on Playboy's right to display its work. The court broadly construed the display right and stated that unauthorized transmission of a work over a computer system is a violation of the privilege to display one's work. Moreover, the court noted that the display, which only BBS subscribers viewed, was sufficiently public to warrant a holding of infringement.

RAM, a computer's read-only memory ("ROM") permanently stores files without losing them after the an individual turns the power off. A. BRUCE CARLSON & DAVID G. GISSER, ELECTRICAL ENGINEERING: CONCEPTS AND APPLICATIONS 615 (2d ed. 1990). Downloading enables people to obtain files and initially store them in the computer's RAM or transfer them for permanent storage in the computer's ROM. See generally, BARAN, supra note 2, at 18 (explaining that downloading lets user store information on her computer). Under the reasoning in Mai Systems, because subscribers transferred the downloaded photographs in Playboy, in the least, to their RAM, they copied the photographs for purposes of the Act of 1976. 991 F.2d at 519. Moreover, the court in Religious Technology held that a subscriber made copies when he uploaded files and "fixed" the files on BBS storage devices. 907 F. Supp. at 1368. The Act of 1976 requires that copyrighted works be "fixed in any tangible medium of expression, now known or later developed, from which they can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device." 17 U.S.C. § 102 (1988). Fixation occurs when the work is in a form in which it is "sufficiently permanent or stable to permit it to be perceived, reproduced, or otherwise communicated for a period of more than transitory duration." 17 U.S.C. § 101. The Religious Technology court held that uploaded files that remained on a bulletin board system for a maximum of eleven days satisfied the fixation requirement. 907 F. Supp. at 1368.

98. Id. The court went on to hold that a court may find copyright infringement even though the defendant may have been unaware of the infringing activity. Id. at 1559. The court noted, "[i]ntent or knowledge is not an element of infringement, and thus even an innocent infringer is liable for infringement." Id.
99. Id. at 1557; see 17 U.S.C. § 106 (1997) (listing rights exclusively held by copyright owner).
100. Playboy, 889 F. Supp. at 1556-57. The court stated that the display right 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." Id. at 1556 (quoting H.R. Rep. No. 1476, 94th Cong., 2d Sess. § 64 (1976)).
101. Playboy, 889 F. Supp. at 1557. A display is public if it occurs "where a substantial number of persons outside of a normal circle of family and its social acquaintances
In *Sega Enterprises, Ltd. v. MAPHIA*, the plaintiff, a video game manufacturer, sued the defendant, a BBS operator, for copyright infringement of the plaintiff's video games. The plaintiff's video games were available, without the plaintiff's authorization, on the defendant's BBS for users to download. The court, in issuing a preliminary injunction enjoining the defendant from using the BBS for unauthorized copying of the plaintiff's video games, found that defendant's operation of the BBS constituted *prima facie* direct infringement.

In *Religious Technology Center v. NetCom Online Communications Services, Inc.*, the plaintiffs claimed that the defendant, NetCom Online Communications Services, Inc. ("NetCom"), an Internet access provider, should be liable for a BBS user's copyright infringement. Prior to commencement of suit, the plaintiffs informed NetCom of the presence of the copyrighted works on the BBS, but NetCom failed to remove any of the materials. Following NetCom's refusal to eliminate the infringing works from the BBS, the plaintiffs sued NetCom on the theory of direct liability.

The court addressed whether NetCom should be directly li-
able for infringement because they operated a service which temporarily stored uploaded copies of the plaintiff’s copyrighted works. Unlike the court in Playboy, the Religious Technology court held that the defendant BBS operator did not directly infringe on the plaintiffs’ exclusive rights to publicly distribute or display their copyrighted works. The court found that the defendant, by operating a service which automatically made copies of uploaded files, did not cause the works to be publicly distributed and displayed.

b. Contributory Infringement

A contributory infringer aids a direct infringer by personally inducing or causing the infringement or by supplying the materials required for the infringement to take place. In both instances, the defendant must have knowledge of the infringing activity to be held liable. The Sega court raised the issue of the defendant’s contributory infringement. The Sega court held that the defendant’s provision of the BBS amounted to contributory infringement even though the defendant did not know exactly when subscribers downloaded the games from the BBS.

In Religious Technology, the court denied NetCom’s motion for summary judgment and determined that the plaintiffs presented a genuine issue of fact regarding the contributory

113. Id. at 1367-68. The court stated that NetCom “did not take any affirmative action that directly resulted in copying plaintiffs’ works other than by installing and maintaining a system whereby software automatically forwards messages received from subscribers... and temporarily stores copies on its system.” Id. at 1368.

114. See Religious Tech., 907 F. Supp. at 1372 (stating “[t]he court is not entirely convinced that mere possession of a digital copy on a BBS that is accessible to some members of the public constitutes direct infringement by the BBS operator.”).

115. Id. The court commented, “[a]lthough copyright is a strict liability statute, there should still be some element of volition or causation which is lacking where a defendant’s system is merely used to create a copy by a third party.” Id. at 1370; see White Paper, supra note 2, at 101 (addressing strict liability aspect of infringement). Courts find infringement without referring to the intent of the infringer. Id.

116. See Carmichael, supra note 3, at 784 (explaining role of contributory infringer); Sega, 857 F. Supp. at 686 (discussing elements of contributory infringement).


118. Id. at 686-87.

119. Id.

120. See Religious Tech., 907 F. Supp. at 1366 (explaining that court decided to treat NetCom’s motion to dismiss as one for summary judgment).

121. See id. (stating that court may grant summary judgment in favor of NetCom if it finds no genuine issue as to any material fact); see also Fed. R. Civ. P. 56(c) (enumerating summary judgment standard).
infringement claim.\textsuperscript{122} The court in \textit{Religious Technology} found a genuine dispute of fact regarding NetCom's knowledge of and substantial participation in the infringing activity.\textsuperscript{123} The \textit{Religious Technology} court, however, pointed out that NetCom was not contributorily liable for any infringement that occurred before they received notice of the infringing activity from the plaintiffs.\textsuperscript{124}

When analyzing the question of knowledge of infringing activity by an OSP for a finding of contributory infringement, U.S. courts have required more than a suspicion of infringement.\textsuperscript{125} For example, in \textit{Sega}, the court found that the OSP's encouragement of use of the service for downloading copyrighted video games constituted knowledge.\textsuperscript{126} In addition, in \textit{Religious Technology}, the court determined that the OSP did not know of infringement until after the plaintiff notified the OSP of the infringing activity.\textsuperscript{127} In both cases, the defendants possessed more than adequate information to reasonably conclude that infringement did or would take place.\textsuperscript{128}

c. Vicarious Liability

The \textit{Religious Technology} court granted summary judgment in favor of NetCom with respect to whether NetCom was vicariously liable for the infringement.\textsuperscript{129} The court applied the standard of vicarious liability which states that a defendant must be

\begin{itemize}
\item \textsuperscript{122} \textit{Religious Tech.}, 907 F. Supp. at 1375.
\item \textsuperscript{123} \textit{Id.} at 1374-75. The \textit{Religious Technology} court stated that because the plaintiffs notified the defendant of the presence of infringing materials on the bulletin board, NetCom arguably knew or should have known of infringing activity. \textit{Id.} at 1374. NetCom's failure to correct the situation after learning of possible infringement, indicated substantial participation and a possible finding of contributory infringement. \textit{Id.} at 1375.
\item \textsuperscript{124} \textit{Id.} at 1374. Prior to receiving notice of the infringing activity from the plaintiffs, NetCom was not aware of the infringement. \textit{Id.}
\item \textsuperscript{125} \textit{See id.} at 1374 (stating that defendants' lack of knowledge is reasonable where they are unable to verify infringement claim); \textit{Sega}, 857 F. Supp. at 686-87 (citing defendant's direction and encouragement of infringement as satisfying contributory infringement requirement).
\item \textsuperscript{126} 857 F. Supp. at 687.
\item \textsuperscript{127} 907 F. Supp. at 1374.
\item \textsuperscript{128} \textit{See id.} at 1366 (explaining that plaintiffs contacted defendants regarding infringing works appearing on Internet); \textit{Sega}, 857 F. Supp. at 687 (concluding that plaintiffs have shown "strong likelihood of success on the merits" regarding contributory infringement claim).
\item \textsuperscript{129} \textit{Religious Technology}, 907 F. Supp. at 1377.
\end{itemize}
The court found a genuine issue of fact with regard to whether NetCom had the right and ability to control the subscriber's infringing acts. The court did not find a genuine issue of fact, however, regarding the claim that NetCom received direct financial benefit from the infringement. The court reasoned that NetCom's fixed subscriber fee is not a financial benefit that stems from the infringing activity.

C. U.K. Copyright Law

U.K. copyright law, like U.S. copyright legislation, attempts to encourage creation of intellectual works by granting

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130. Id. at 1975. The court stated, "a defendant is [vicariously liable] for the actions of a primary infringer where the defendant (1) has the right and ability to control the infringer's acts and (2) receives a direct financial benefit from the infringement." Id. The court, in Shapiro, enumerating the vicarious liability standard, stated: When the right and ability to supervise coalesce with an obvious and direct financial interest in the exploitation of copyrighted materials, even in the absence of actual knowledge that the copyright monopoly is being impaired, the purposes of copyright law may be best effectuated by the imposition of liability upon the beneficiary of that exploitation.

131. Religious Tech., 907 F. Supp. at 1376. NetCom's subscriber agreement requires that, in the event of an infringement, its subscribers be subject to remedial action by the service. Id. at 1375. NetCom explicitly prohibits copyright infringement and requires user indemnification for damage to third parties. Id. at 1376. NetCom, however, argued that they were not able to screen the large number of postings. Id. Conversely, the plaintiffs contended, and NetCom admitted, that if NetCom had modified their software, they would have had the ability to monitor incoming postings. Id.; see id. at 1368 (discussing NetCom's admission regarding possibility of reprogramming system to prescreen certain postings). The court found the plaintiffs' evidence persuasive and, accordingly, found a genuine issue of fact with respect to NetCom's control over the subscribers. Id. at 1376.

132. Id. at 1377.

133. Id. The court found that NetCom charges a fixed fee to subscribers and receives no direct financial benefit from the infringing postings. Id. The court cited arguments which analogized NetCom's situation to that of a landlord who is not liable for infringement on his premises. Id. at 1376; see Kelly Tickle, Comment, The Vicarious Liability of Electronic Bulletin Board Operators for the Copyright Infringement Occurring on Their Bulletin Boards, 80 Iowa L. Rev. 391, 415 (1995) (stating that BBS operators are landlords who lease space on computer systems).

134. See Mazer v. Stein, 347 U.S. 210, 219 (1954) (stating "[t]he economic philosophy behind [U.S. copyright law] is the conviction that encouragement of individual effort by personal gain is the best way to advance the public welfare through the talents of authors and inventors.")
individuals exclusive rights over their creative endeavors. With the passage of time, legislators increased the scope of protection and created laws to address technological advances. The latest major effort to confront new technology came in 1988 with the promulgation of the Copyright, Designs, and Patents Act ("1988 Act").

1. The Restricted Acts

Like the U.S. legislation on copyrights, the 1988 Act has provisions concerning the exclusive rights of the copyright owner. The 1988 Act, unlike U.S. legislation, addresses storage of copyrighted material on a computer. Under the provisions of the 1988 Act, storage of a copyrighted work on a computer amounts to copying. In addition, the 1988 Act defines a

135. See Groves, supra note 28, at 1 (discussing importance of maintaining incentive to create copyrightable works).
136. Internet Law, supra note 4, at 13; see Joyce et al., supra note 11, at 6 (discussing U.K. copyright legislation in eighteenth century).
137. Internet Law, supra note 4, at 13.
138. See Groves, supra note 28, at 1 (acknowledging that advent of personal computer has forced copyright law to address computer software and databases).
140. 1988 Act, supra note 139, § 16(1)(a)-(e), at 355. Section 16(1)(a)-(e) state: (1) The owner of the copyright in a work has . . . the exclusive right to do the following acts in the United Kingdom: (a) to copy the work; (b) to issue copies of the work to the public; (c) to perform, show, or play the work in public; (d) to broadcast the work or include it in a cable program service; and (e) to make an adaptation of the work or do any of the above in relation to an adaptation.
141. 1988 Act, supra note 139, § 17(2), at 357; compare Groves, supra note 28, at 55 (stating that 1988 Act addresses storage of work on computer) and Internet Law, supra note 4, at 16 (discussing added provision for computer copying in 1988 Act) with Mai Systems, 991 F.2d at 518 (asserting common law conclusion that storage on computer's RAM constitutes copying for purposes of Act of 1976).
142. 1988 Act, supra note 139, § 17(2), at 357. The legislative history of the 1988 Act helps to clarify the treatment of computer programs. Groves, supra note 28, at 55. "[I]t will be made clear that the rights given to copyright owners over reproduction extend to copying by fixing a work on [sic] any medium from which the work can in principle be reproduced." 1986 White Paper on Intellectual Property and Innovation, Cmd 9712, ¶ 9.5. Accordingly, under the 1988 Act, "copying includes storing the work in any medium by electronic means[, where] electronic [is defined as] actuated by
temporary or incidental reproduction made on a computer as copying.\textsuperscript{143}

2. Infringement Standards

Under U.K. law, individuals commit copyright infringement if they, without the copyright owner’s consent, violate any of the exclusive rights granted by the 1988 Act.\textsuperscript{144} Such acts constitute primary infringement.\textsuperscript{145} In addition, the 1988 Act categorizes certain activities which encompass dealing with infringing copies as secondary infringement.\textsuperscript{146} Moreover, the U.K. legislators also included provisions for vicarious liability in the 1988 Act.\textsuperscript{147}

a. Primary Infringement

In the United Kingdom, individuals primarily infringe copyright when they, without the license of the copyright owner, copy,\textsuperscript{148} distribute,\textsuperscript{149} perform,\textsuperscript{150} broadcast,\textsuperscript{151} or prepare an adaptation\textsuperscript{152} of a copyrighted work or authorize another to perform those acts.\textsuperscript{153} Like the U.S. District Courts in \textit{Playboy}\textsuperscript{154} and
Sega, U.K. courts might find an OSP liable for primary infringement. In Playboy, a U.S. court found that the OSP violated the plaintiff’s rights to publicly distribute and display the copyrighted material. Some U.K. legal practitioners speculated that a U.K. court, under the 1988 Act, might find an OSP directly liable for issuing unauthorized copies of the work to the public and showing or playing the work in public. These commentators contemplated that a U.K. court might be more apt to find direct infringement because the 1988 Act stipulates that copying includes storing a work in any medium by electronic means and materials are generally stored on an Internet host’s computer before downloading occurs.

b. Secondary Infringement

The acts of secondary infringement include importation of infringing copies, possessing or dealing with an infringing copy, providing the means for making infringing copies, permitting the use of premises for infringing performance, and providing the apparatus for infringing performance. The

knowledge is not element of infringement) with White Paper supra note 2, at 101 (stating that court may find infringement without considering state of mind of infringer).

156. See Internet Law, supra note 4, at 19 (speculating about policies of U.K. courts).
157. 839 F. Supp. at 1556; see supra notes 96-101 and accompanying text (discussing holding in Playboy case).
158. Internet Law, supra note 4, at 19.
159. See 1988 Act, supra note 199, §17(2), at 357 (outlining provision for storing work by electronic means).
160. Internet Law, supra note 4, at 19. Because of the absence of case law on Internet copyright issues, legal scholars may only predict the policy approaches of U.K. courts. Id.
162. Id. §23, at 361. The 1988 Act includes possession in the course of business under “possessing or dealing with an infringing copy.” Id. §23(a), at 361. The 1988 Act defines business as any trade or profession. Id. §178, at 473; see Groves, supra note 28, at 66 (discussing possessing or dealing in 1988 Act).
163. 1988 Act, supra note 199, §24, at 362. Individuals may be liable for “providing the means for infringement” if they “let for hire... an article... designed or adapted for making copies of [a] work.” Id. §24(1)(d), at 362. Under that same category, a person may also be liable for unauthorized transmission of a work by means of a telecommunication system, such as telephone lines. Id. §24(2), at 362; see Groves, supra note 28, at 67-68 (defining in detail provisions of Section 24 of 1988 Act).
165. Id. §26, at 363-64.
1988 Act requires that the secondary infringer know of the infringing activity. The U.K. courts' interpretation of the knowledge requirement parallels that of the U.S. courts, in that the U.K. courts maintain that knowledge includes a reasonable belief that the infringing activity has taken or will take place. Accordingly, the court in \textit{L.A. Gear, Inc. v. HI-TEC Sports, plc.} held that knowledge is present when a reasonable man's interpretation of known facts would result in more than a mere suspicion of infringement.

c. Vicarious Infringement

The House of Lords construed the concept of vicarious infringement in \textit{CBS Songs v. Amstrad Consumer Electronics} to ap-

166. \textit{See} 1988 Act, \textit{supra} note 139, §§ 22-26, at 360-64 (illustrating knowledge requirement for categories of secondary infringement). Under the Copyright Act of 1956 ("1956 Act"), the copyright owner needed to show that the secondary infringer "knew he was dealing with infringing copies . . . ." Groves, \textit{supra} note 28, at 65; \textit{see} Copyright Act, 1956, 4 & 5 Eliz. 2, ch. 74, § 5 (Eng.) [hereinafter 1956 Act] (outlining knowledge requirement). The 1988 Act reduced the copyright owner's burden of proving knowledge of infringing activity. Groves, \textit{supra} note 28, at 65. Under the 1988 Act, the copyright owner need only prove that the suspected infringer "knows or has reason to believe that infringement has taken, or would take, place." \textit{Id.}

In \textit{L.A. Gear, Inc. v. HI-TEC Sports, plc.}, the court distinguished the knowledge requirements under the 1956 and 1988 Acts by addressing the addition of the words "reason to believe" in the 1988 Act. [1992] F.S.R. 121, 129 (C.A.) (Eng.). The court stated that the 1956 Act attributed knowledge to a defendant when the defendant was aware of facts that led him to conclude that "it would be obvious that something was an infringing copy . . . ." \textit{Id.} In contrast, the court found that "reason to believe," under the 1988 Act, "involve[s] the concept of knowledge of facts from which a reasonable man would arrive at the relevant belief." \textit{Id.} The court went on to hold, "[f]acts from which a reasonable man might suspect the relevant conclusion cannot be enough." \textit{Id.; see} Hutchison Personal Communications Ltd. v. Hook Advertising Ltd., [1995] F.S.R. 365, 379 (Ch.) (Eng.) (holding that merely putting defendants on notice of disputed facts was not sufficient to give defendant's reason to believe that they were dealing with infringing copies); \textit{see also Religious Tech.,} 907 F. Supp. at 1374-75 (discussing that, in United States, notice of possible infringing activity given to defendants was enough to hold defendants to knowledge of infringement).

167. \textit{Compare} Gershwin Publishing Corp. v. Columbia Artists Management, Inc., 443 F.2d 1159, 1162 (2d Cir. 1971) (holding that courts may find defendants contributorily liable if they have reason to know that infringing activity is taking place) \textit{with} \textit{L.A. Gear} [1992] F.S.R. at 129 (implementing standard that copyright owner must prove that infringer "knows or has reason to believe that infringement has taken, or would take place").


ply to those individuals who intentionally authorize a third person to commit infringement. In addition, the House of Lords stated that in order to be subject to vicarious liability, an individual granting the authority must be in a position to control the grantee's actions.

D. EC Copyright Law

Legal scholars contend that the European Community, in order to advance a single market economy, must concern itself with harmonization of copyright law. The objectives of the European Community are furthered when Member States promulgate national copyright laws that are consistent with a common market. As such, the European Community encourages little variance of copyright legislation between individual Member States.

1. The Goal of a Common Market

The European Community presently consists of fifteen Member States. Each Member State has national laws relating to copyright. EC law, however, affects the laws of the Member States and may supersede national legislation. In the event of

171. Id. at 1203, [1988] 2 All E.R. at 493. The court defined authorizing as "purport[ing] to grant a third person the right to do the relevant act, whether the intention is that the grantee should do the act on his own account or on account of the grantor . . . ." Id. Prior to the House of Lords decision in CBS Songs, some U.K. courts viewed authorization more broadly. Stone, supra note 139, at 56. In Performing Right Society, Ltd. v. Cisyl Theatrical Syndicate, Ltd., the court stated that authorization may be inferred "from acts which fall short of being direct or positive; . . . indifference, exhibited by acts of commission or omission, may reach a degree from which authorization or permission may be inferred." [1924] 1 K.B. 1, 9 (C.A.) (Eng.); see Stone, supra note 139, at 56 (discussing different interpretations of meaning of authorizing).


175. Id. at 361.

176. Jehoram & Smulders, supra note 173, at EC-7. The six original members of the European Community were Belgium, France, Germany, Italy, Luxembourg, and the Netherlands. Id. They were later joined by Denmark, Ireland, the United Kingdom, Greece, Spain, Portugal, Sweden, Finland, and Austria joined at later dates. Id. at EC-7-8.

177. Id. at EC-7.

178. Id. In certain cases, courts must look to EC law before determining the actual
certain conflicts, the Treaty Establishing the European Community ("EC Treaty") and laws arising from its provisions will prevail over national legislation.

Article 2 of EC Treaty sets out the overall aim of the European Community as the achievement of a common market. Subsequent provisions of the EC Treaty outline specific mandates designed to ensure implementation of the common market. Article 3(h) requires that Member State laws aid in the maintenance of the common market. In addition, Articles 30 through 36 prohibit restrictions on imports of Member State goods in order to ensure free movement of goods throughout the European Community.

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<td>181. Jehoram &amp; Smulders, supra note 173, at EC-16 (discussing the raising of the standard of living and quality of life, and economic and social cohesion and solidarity among member-States).</td>
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<td>182. EC Treaty, supra note 180, art. 2, [1992] 1 C.M.L.R. at 588. Article 2 states: The Community shall have as its task, by establishing a common market and an economic and monetary union and by implementing the common policies of activities referred to in Articles 3 and 3a, to promote throughout the Community a harmonious and balanced development of economic activities, sustainable and non-inflationary growth respecting the environment, a high degree of economic performance, a high level of employment and of social protection, the raising of the standard of living and quality of life, and economic and social cohesion and solidarity among member-States.</td>
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<td>184. EC Treaty, supra note 180, art. 3(h), [1992] 1 C.M.L.R. at 589. Article 3(h) calls for &quot;the approximation of laws of member-States to the extent required for the functioning of a common market.&quot; Id. art. 3(h), [1992] 1 C.M.L.R. at 589; see Jehoram &amp; Smulders, supra note 173, at EC-18 (discussing provisions in EC Treaty which aid in development of common market).</td>
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|185. EC Treaty, supra note 180, arts. 30-36, [1992] 1 C.M.L.R. at 602-05; see Jehoram & Smulders, supra note 173, at EC-17 (discussing Articles of EC Treaty which address prohibitions on imports). The provisions of Articles 30 through 36 follow from Article 3's specific objectives of "eliminating[ing], as between member-States, customs du-
The European Court of Justice\(^{186}\) ("ECJ") has held that the provisions and objectives set forth in the EC Treaty are applicable to copyright.\(^{187}\) The ECJ incorporated intellectual property into Article 36\(^{188}\) of the EC Treaty.\(^{189}\) As a result of this incorporation, in order to insure a common market, the Council of Ministers\(^{190}\) ("Council") may institute legislation, including directives,\(^{191}\) that harmonize copyright law among Member States.\(^{192}\)

\(^{186}\) See EC Treaty, supra note 180, art. 164, [1992] 1 C.M.L.R. at 684 (outlining role of ECJ). Article 164 states, "[t]he Court of Justice shall ensure that in the interpretation and application of this Treaty the law is observed." Id.; see also Jehoram & Smulders, supra note 173, at EC-14 (stating that ECJ, located in Luxembourg, determines proper application of Community law).

\(^{187}\) See id. at EC-11 (explaining Council of Ministers). The EC Council or Council of Ministers is comprised of representatives from the Member States and adopts most of the legislation for the European Community. Id.

2. Harmonization of Copyright Law

Legal scholars have argued that differences among Member States regarding the scope and modes of protection generated by copyright laws tend to thwart the advancement of the EC common market objective. Varying levels of copyright protection from Member State to Member State cause uncertainties in trade and business transactions, resulting in a depressed market for intellectual property. In contrast, consistent copyright legislation among Member States fosters a strong business climate and encourages trade. As a result, the European Community has encouraged community-wide harmonization of copyright laws. Recent harmonization has occurred as a result of the emergence of new technologies and is evidenced by the Software, Rental Rights, Satellite Broadcasting, and Database directives.

a. Software Directive

The Software Directive provides protection for computer


193. Id. at EC-67.


195. Id.


197. Kuhn, supra note 194, at 202; Vinje, supra note 174, at 361. The drafters of the EC Treaty, anticipating a need for consistent legislation between the Member States, included a specific provision ordering the Council to provide for uniform laws when differences are hindering the overall aims of the European Community. EC Treaty, supra note 180, art. 100, [1992] 1 C.M.L.R. at 633; see Jehoram & Smulders, supra note 173, at EC-67 (discussing reasoning behind Article 100 of EC Treaty).


201. Database Directive, supra note 191, O.J. L 77/20 (1996); see BARAN, supra note 2, at 28 (discussing on-line databases). “On-line databases are simply collections of various types of data (including text, but by no means limited to text). These databases reside in computers with on-line connectivity, either through a direct-dial connection, a commercial on-line service, or the Internet.” Id. Subject matter included in databases includes periodicals, legal and medical information, airline schedules, and financial reports. Id. at 28-29.

202. See Kuhn, supra note 194, at 202 (stating that technological advancements have created need for copyright protection on international level).
programs by enumerating a series of restricted acts that an individual may not perform without authorization by a copyright owner.\textsuperscript{203} In addition, the Software Directive requires enforcement of the rights secured by a copyright holder.\textsuperscript{204} One legal expert contends that the Software Directive is arguably one of the more important accomplishments of EC intellectual property legislation\textsuperscript{205} because it illustrates the intent of the European Community to increase intellectual property protection\textsuperscript{206} and to develop international standards of copyright law.\textsuperscript{207}

b. Rental Rights Directive

Under Article 2 of the Rental Rights Directive,\textsuperscript{208} the exclusive right to rent\textsuperscript{209} or lend\textsuperscript{210} copyrighted material belongs to an

\textsuperscript{203} Software Directive, supra note 191, art. 4, O.J. L 122/42, at 44 (1991). Restricted acts under Article 4 of the Software Directive are those acts which the copyright holder has the "right to do or authorize." Id. Article 4(a) labels "the permanent or temporary reproduction of a computer program" as a restricted act and states that when "loading, displaying, running, transmission or storage of the computer program necessitate such reproduction, such acts shall be subject to authorization by the rightholder." Id. Further restricted acts under Article 4(b) and (c) include "translation, adaptation, arrangement[,] . . . any other alteration of a computer program, and the reproduction results thereof [and] . . . any form of distribution to the public, including the rental, of the original computer program or of copies thereof." Id. The Council adopted the Software Directive on May 14, 1991 and gave Member States until January 1, 1993 to comply with the Software Directive's terms. Id. arts. 10-11, O.J. L 122/42, at 46 (1991); Jehoram & Smulders, supra note 173, at EC-71. Only the United Kingdom, Denmark, and Italy were able to meet the January 1, 1993 deadline. Vinje, supra note 174, at 364. Since that time, however, all Member States have finalized legislation consistent with the Software Directive. Id.

\textsuperscript{204} Vinje, supra note 174, at 364. Article 7 of the Software Directive calls for appropriate remedies for "putting into circulation a copy of a computer program [and] possess[ing] for commercial purposes . . . a copy of a computer program." Software Directive, supra note 191, art. 7, O.J. L 122/42, at 45 (1991). In both cases, the infringer must "know, or have reason to believe, that it is an infringing copy." Id.

\textsuperscript{205} See Vinje, supra note 174, at 361-63 (stating that Software Directive is critical piece of intellectual property legislation in European Community).

\textsuperscript{206} Id. at 363.

\textsuperscript{207} Kuhn, supra note 194, at 203.


\textsuperscript{209} See Rental Rights Directive, supra note 191, art. 1, O.J. L 346/61, at 63 (1992) (defining rental as "making available for use, for a limited period of time and for direct or indirect economic or commercial advantage.").

\textsuperscript{210} See id. art. 1, O.J. L 346/61, at 63 (1992) (defining lending as "making avail-
author, performer, phonogram producer, or film producer.\textsuperscript{211} The Rental Rights Directive, in order to insure the effectiveness of the rental and lending rights, requires Member States to provide exclusive rights of fixation, reproduction, communication to the public, and distribution of copyrighted works.\textsuperscript{212}

c. Satellite Broadcasting Directive

The Council offered the Satellite Broadcasting Directive\textsuperscript{213} to allow free movement of television programming throughout the European Community.\textsuperscript{214} The Satellite Broadcasting Directive requires that broadcasters acquire their rights in a transmission from the Member State where the broadcaster introduces the satellite signals.\textsuperscript{215} This requirement eliminates the confu-

\textsuperscript{211} Id. art. 2, O.J. L 346/61, at 63 (1992). Article 2(1) states: The exclusive right to authorize or prohibit rental and lending shall belong to the author in respect of the original and copies of his work, to the performer in respect of fixations of his performance, to the phonogram producer in respect of his phonograms, and to the producer of the first fixation of a film in respect of the original and copies of his film. For the purposes of this Directive, the term film shall designate a cinematographic or audiovisual work or moving images, whether or not accompanied by sound.

\textsuperscript{212} Id. arts. 6-9, O.J. L 346/61, at 64 (1992); see Vinje, supra note 174, at 370 (stating effective rental and lending rights are contingent on harmonization of exclusive rights of fixation, reproduction, public broadcast, and distribution for performers, producers, and broadcasters among Member States).


\textsuperscript{214} Kuhn, supra note 194, at 206.

\textsuperscript{215} Satellite Broadcasting Directive, supra note 191, art. 1(2), O.J. L 248/15, at 19 (1993). Article 1(2)(a) and (b) state: (a) For the purpose of this Directive, communication to the public by satellite means the act of introducing, under the control and responsibility of the broadcasting organization, the programme-carrying signals intended for reception by the public . . . . (b) The act of communication to the public occurs solely in the Member State where, under the control and responsibility of the broadcasting organization, the programme-carrying signals are introduced
sion created by the application of various national laws to one broadcast.\textsuperscript{216} Under the Satellite Broadcasting Directive, broadcasters will no longer have to negotiate for copyright royalties in every Member State receiving the broadcast.\textsuperscript{217}

d. Database Directive

The Database Directive\textsuperscript{218} provides the owner of a database with the exclusive rights of reproduction, translation, adaptation, distribution, and communication to the public of the database.\textsuperscript{219} The Database Directive conditions the above rights on the originality\textsuperscript{220} of the database, which authors satisfy if the selection and arrangement of the contents reflects their intellectual creations.\textsuperscript{221} In addition, the Database Directive also offers a \textit{sui generis} right\textsuperscript{222} prohibiting unauthorized extraction for

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  \item \textsuperscript{216} See Satellite Broadcasting Directive, \textit{supra} note 191, Recital 14, O.J. L 248/15, at 16 (1993) (stating that definition detailing where act of communication takes place "is necessary to avoid the cumulative application of several national laws to one single act of broadcasting.").
  \item \textsuperscript{217} Vinje, \textit{supra} note 174, at 370.
  \item \textsuperscript{219} \textit{Id.} art. 5, O.J. L 77/20, at 25 (1996). Article 5 states: [T]he author of a database shall have the exclusive right to carry out or authorize: (a) temporary or permanent reproduction by any means and in any form, in whole or in part; (b) translation, adaptation, arrangement and any other alteration; (c) any form of distribution to the public of the database or of copies thereof . . . (d) any communication, display or performance to the public . . . .

\textit{Id.}
  \item \textsuperscript{220} See \textsc{Joyce et al.}, \textit{supra} note 11, at 27 (explaining that originality requires that copyrighted material be author's own work, not copied from another work).
  \item \textsuperscript{222} See Jehoram & Smulders, \textit{supra} note 173, at EC-86-88 (explaining \textit{sui generis} right as protecting not results of originality or creativity, but author's investment of time, effort, and financial resources in creating database); see also Vinje, \textit{supra} note 174, at 366 (explaining \textit{sui generis} protection). The U.S. Supreme Court, in \textit{Feist}, rejected the equivalent of the \textit{sui generis} right, "sweat of the brow" protection. \textit{Feist}, 499 U.S. at 354. The court stated, "[t]o accord copyright protection on [the] basis [of sweat of the brow] alone distorts basic copyright principles in that it creates a monopoly in public domain materials without the necessary justification of protecting and encouraging the
commercial purposes of the contents of the database, which is available regardless of the originality of the database.  

II. DETERMINING SCOPE OF OSP LIABILITY FOR COPYRIGHT INFRINGEMENT

Governments around the world face the challenge of establishing the legislative groundwork for international intellectual property protection in the new information society. The Task Force, in the White Paper, maintains that the use of interactive digital information networks is expanding and that U.S. legislators must define the scope of copyright protection of works in digital form. U.K. legal scholars also maintain that legislators much reach conclusions regarding copyright law in the face of Internet technology. Similarly, legal experts in the European Community stress the importance of ascertaining the boundaries of protection in the digital age.

A. Reconciling the Scope of Exclusive Rights with the Internet

Representatives at the December 1996 meeting of the WIPO attempted to determine the scope of exclusive rights for the digital environment. The signatories, consistent with theories that the European Community and the Task Force espoused,

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creation of 'writings' by 'authors.'” *Id.* (quoting NIMMER & NIMMER, supra note 77, at § 3.04).


Member States shall provide for a right for the maker of a database which shows that there has been qualitatively and/or quantitatively a substantial investment in either obtaining, verification or presentation of the contents to prevent extraction and/or re-utilization of the whole or of a substantial part, evaluated qualitatively and/or quantitatively, of the contents of that database.

*Id.* art. 7(1), O.J. L 77/20, at 25 (1996).


225. *Id.*

226. *Id.* at 148.


228. Commission of the European Communities, Communication to the European Parliament, the Council, the Economic and Social Committee and the Committee of the Regions: Illegal and Harmful Content on the Internet, COM (96) 487 Final at 4-5 (Oct. 1996) [hereinafter Internet Communication].


230. See Green Paper Follow-Up, supra note 17, COM (96) 586 Final at 8 (recommending that legislators apply existing copyright concepts to digital technology); *White
applied traditional copyright concepts to new technologies. Though WIPO drafters favored expansion of conventional copyright principles to conform with computerized reproduction and dissemination, some legal scholars maintain that legislators should develop new exclusive rights to address Internet communications.

1. U.S. Proposals: White Paper and Commentary

The Task Force proposed that Congress amend the exclusive right to distribute copyrighted works to the public to include a provision that recognizes that copyright owners also have the exclusive right to distribute copies of their works to the public by transmissions over high-speed communications systems. In addition, the Task Force defined transmission to apply to individuals using a device or process to distribute reproductions. The Task Force’s definition encompasses reproductions which are fixed after a transmission. The Task Force maintained that the proposal does not create a new right, but instead, in response to technological advancements, recognizes that the distribution right addresses transmissions.

In contrast, one legal commentator adopted the view that the traditional idea of distribution is obsolete in the world of digital dissemination. This individual set forth the concept of

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231. See WIPO Copyright Treaty, supra note 20, pmbl. (stating need to “clarify the interpretation of existing rules in order to provide adequate solutions to questions raised by new . . . technological developments.”).

232. See Elkin-Koren, supra note 22, at 387 (arguing that traditional distribution right is not adequate to address online technology); see also Simon Olswang, Accessright: An Evolutionary Path for Copyright into the Digital Era?, [1995] 5 EUR. INT’L PROP. REV. 215, 217 (advocating exclusive right to control access to works online).


234. White Paper, supra note 2, at 213. The proposed law would state that a copyright owner has the exclusive right “to distribute copies ... of the copyrighted work to the public by sale or other transfer of ownership, by rental, lease, or lending, or by transmission.” Id. at app. 2 (emphasis in original). The Task Force also decided that Congress should amend the definition of publication to recognize that individuals may publish their works through distribution to the public by transmission. Id. at 219.

235. Id. at 217 n.543. “[T]o transmit a reproduction is to distribute it by any device or process whereby a copy ... of the work is fixed beyond the place from which it was sent.” Id.

236. Id.

237. Id. at 213-14.

238. Elkin-Koren, supra note 22, at 387.
defining distribution in terms of providing access to information. The commentator determined that if lawmakers replaced the distribution right with a right to restrict access, they would upset the balance of power between the public and providers of information. The author postulated that, under an access defined regime, artists and OSPs would be able to exercise more control over dissemination of works. The writer illustrated this fact by explaining that, with an access right, an OSP would have the power to restrict access to online information, but individuals, under the present distribution system, are unable to restrict access to printed books once consumers have the physical copies in their possession.

2. EC Proposals: Legislation Based on Existing Copyright Principles

The European Commission ("Commission") fosters the view that the development of the Information Society in the European Community is contingent on the existence of a Single Market for new products and services. The Commission believes that the European Community must provide for consistent
Member State responses to new technologies.246 Moreover, the Commission states that the European Community must ensure uniform opportunity for creators to market and exploit their works in the highly technical environment.247

The Council has responded to the changing technology by adopting copyright directives.248 The Commission believes that the Council needs to continue its response to technical advancements and has advocated further harmonization of copyright law to deal with Internet technology.249 The Commission further states that legal and regulatory certainty regarding Internet services is an absolute prerequisite to the development of a strong EC market based on the new technology.250

The Commission maintains that the traditionally high level of intellectual property protection in the European Community must continue even in the face of technological developments.251 In order to accomplish this task, the Commission postulates that lawmakers must meet the needs of the new market without changing existing copyright concepts.252 As such, the Commission recommends only minor changes to EC copyright regulations to accommodate the advancements in information services.253

246. Id. The Commission fears that inconsistent national laws relating to new technology will thwart the development of the Single Market. Id.
247. Id.
248. See supra note 191 and accompanying text (outlining Software, Rental Rights, Satellite Broadcasting and Database Directives in field of copyright law).
249. Green Paper Follow-Up, supra note 17, COM (96) 586 Final at 8; see Internet Communication, supra note 228, at 4 (stating that divergent Member State responses to question of regulation of Internet services may lead to re-fragmentation of Single Market); see also Kuhn, supra note 194, at 202 (stating that new technologies create need for international copyright regulation).
250. Internet Communication, supra note 228, at 4-5; see Vinje, supra note 174, at 377 (stating that increased harmonization of copyright legislation results in more attractive market for intellectual property).
251. Green-Paper Follow-Up, supra note 17, COM (96) 586 Final at 8; see Vinje, supra note 174, at 361 (stating intellectual property harmonization plan favors rightsholders). EC institutions are attempting to harmonize intellectual property legislation, while strengthening it at the same time. Id. In addition, Directorate-General XV ("DG XV"), a branch of the Commission primarily responsible for proposing intellectual property law, espouses a broad view of intellectual property protection and is in favor of applying traditional principles of protection to new technologies. Id.
252. Green Paper Follow-Up, supra note 17, COM (96) 586 Final at 8.
253. Id.
a. Reproduction Right

Presently, all Member States provide some sort of exclusive reproduction right\textsuperscript{254} of copyrighted material, but the national provisions differ in scope and limitations of the reproduction right.\textsuperscript{255} Furthermore, the international reproduction right, that the Berne Convention sets forth, is subject to broad interpretation.\textsuperscript{256} The question facing the Commission is how to determine the extent to which electronic reproductions on the Internet are violations of the exclusive reproduction right.\textsuperscript{257} The Commission recognizes that a variety of computerized processes may constitute reproduction\textsuperscript{258} and, as such, wishes to eliminate

\textsuperscript{254} See, e.g., French Intellectual Property Code, Law No. 92-597 of July 1, 1992 [hereinafter French IP Code], art. L.122-3 (defining reproduction right). The French IP Code provides:

Reproduction shall consist of a material fixation of a work by any and all methods that allow it to be communicated to the public in an indirect fashion. It can be accomplished, notably, by printing, drawing, engraving, photographing, casting, and all processes of the graphic and plastic arts, or by mechanical, cinematographic, or magnetic recording.

Id.

\textsuperscript{255} Green Paper Follow-Up, supra note 17, COM (96) 586 Final at 9.

\textsuperscript{256} Id. Article 9 of the Berne Convention, setting forth the reproduction right, states:

1. Authors of literary and artistic works protected by this Convention shall have the exclusive right of authorizing the reproduction of these works, in any manner or form.

2. It shall be a matter for legislation in the countries of the Union to permit the reproduction of such works in certain special cases, provided that such reproduction does not conflict with a normal exploitation of the work and does not unreasonably prejudice the legitimate interests of the author.

3. Any sound or visual recording shall be considered as a reproduction for the purposes of this Convention.

Berne Convention, supra note 52, art. 9, at 8.

\textsuperscript{257} Green Paper Follow-Up, supra note 17, COM (96) 586 Final at 9.

\textsuperscript{258} Id. The Commission, exploring the reproduction right in light of advances in technology, states:

In the Information Society ... traditional forms of reproduction ... coexist with a multitude of new forms of reproducing works ... such as scanning of a printed work, or loading and/or storing of digitized material in a computer memory .... Reproduction may also arise from incidental and ephemeral acts which occur from normal use of an electronic system, for instance, when transmitting material over ... the Internet. The question has arisen how far such new acts of reproduction are covered by the traditional reproduction right ....

\textsuperscript{Id.}

As a result of an agreement reached at the December 1996 meeting of WIPO, in Geneva, Switzerland, representatives from 160 countries clarified the scope of the reproduction right to a limited extent. Scheisel, supra note 20, at A1. The WIPO Per-
present uncertainty within the European Community regarding the scope of the electronic reproduction right. The Commission cites the importance of this clarification for preventing adverse effects on the growth of the Single Market.

b. Right of Communication to the Public

The Commission appreciates the nature of digital technology and understands that potential users of on-line services have a myriad of information at their fingertips. The potential users of on-line services represent members of the public, and, as such, electronic transmissions, over such mediums as the Internet, encompass more than private communication. The Commission, therefore, seeks to define the on-demand receipt of digital information in terms of a right of communication to the public.

performances and Phonograms Treaty states in article 7, "[p]erformers shall enjoy the exclusive right of authorizing the direct or indirect reproduction of their performances fixed in phonograms, in any manner or form." WIPO Performances and Phonograms Treaty, supra note 20, art. 7. Similarly, article 11 states, "[p]roducers of phonograms shall enjoy the exclusive right of authorizing the direct or indirect reproduction of their phonograms in any manner or form." Id. at 11. The WIPO delegates further developed the reproduction right by stating:

The reproduction right, as set out in Article 9 of the Berne Convention ... fully appl[ies] in the digital environment, in particular for the use of works in digital form. It is understood that the storage of a protected work in digital form in an electronic medium constitutes a reproduction within the meaning of Article 9 of the Berne Convention. Agreed Statements Concerning the WIPO Copyright Treaty, adopted by the Diplomatic Conference on Dec. 20, 1996, art. 1(4) <http://www.wipo.org/eng/diplconf/distrib/96dc.htm> [hereinafter Agreed Statements Concerning WIPO Copyright Treaty]; see Agreed Statements Concerning the WIPO Performances and Phonograms Treaty, adopted by the Diplomatic Conference on Dec. 20, 1996, arts. 7, 11 <http://www.wipo.org/eng/diplconf/distrib/96dc.htm> [hereinafter Agreed Statements Concerning WIPO Performances and Phonograms Treaty] (outlining application of reproduction right of performances and phonograms in digital environment); see also Scheisel, supra note 20, at A1 (stating that drafters of agreement refused to treat "temporary computer copies automatically created to view graphics and other information from the Internet" as violation of reproduction right).

259. Green-Paper Follow-Up, supra note 17, COM (96) 586 Final at 11.
260. Id. at 10.
261. Id. at 12. A consumer using a personal computer is able to access, at any given time, electronic transmissions of texts, software, phonograms, and databases. Id.; see BARAN, supra note 2, at 23-25 (discussing availability of electronic information online).
262. Green-Paper Follow-Up, supra note 17, COM (96) 586 Final at 12.
263. Id. Articles 11, 11bis, and 11ter of the Berne Convention provide for the right of communication to the public. Berne Convention, supra note 52, arts. 11-11ter,
The present law of the European Community does not provide an exclusive right to on-demand transmissions and most of the Member States favor inclusion of such transmissions under a broad right of communication to the public. The Member States maintain that the additional right of communication to the public will safeguard privileges that the reproduction right does not reach. The Commission, therefore, is advocating the harmonization of the communication right, with little deviance from the traditional communication right outlined in the Berne Convention.

c. Distribution Right

The right of distribution gives creators the right to control dissemination of their works. Rightsholders, however, may exhaust their distribution rights once they consent to public circulation of their works. All Member States recognize a right of distribution, and some of the copyright directives have par-

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265. Id.
266. Id. at 13.
267. Id. at 14. The Commission favors keeping the present definition of public and does not wish to redefine the term for the digital environment. Id.
268. Id. at 17.
269. Green Paper Follow-Up, supra note 17, COM (96) 586 Final at 17.
270. Id. The distribution rights differ in scope and limitations among Member States. Id.
271. See, e.g., Rental Rights Directive, supra note 191, art. 9, O.J. L 346/61, at 64 (1992) (outlining distribution right). Article 9 states:
1. Member States shall provide for performers, phonogram producers, producers of the first fixations in their films, broadcasting organizations, the exclusive right to make available [their works], including copies thereof,
tially harmonized the distribution right. The Commission proposes complete harmonization of the distribution right for all types of copyrighted works. In addition, the Commission asserts that the distribution right should not be exhausted with respect to online services. The Commission maintains that a lack of exhaustion of the distribution right regarding online services is consistent with the ECJ’s holding in Coditel v. S.A. Cine Vog Films, which stated that courts should not apply the exhaustion principle to the provision of services with a Community element.

3. WIPO Treaties

The WIPO Copyright and the WIPO Performances and Phonograms Treaties offer international responses to concerns about copyright law in the digital age. The WIPO Copyright Treaty set forth provisions outlining a creator’s exclusive right to control communications to the public that enable individuals to access the creator’s works at a time and place chosen by the accessing individual. In agreed statements concerning the WIPO Copyright Treaty, the drafters concluded that the provision of facilities for making a communication does not amount to a violation of the communication right.

The WIPO Performances and Phonograms Treaty outlined
provisions for the scope of artists' rights to authorize reproductions of their works and specified that storage of a performance or phonogram in digital form constitutes a reproduction. Members of the online industry, who sought liberal copyright laws, praised the treaties. The online industry was pleased that drafters decided to exclude, from the WIPO Performances and Phonograms Treaty, language labelling temporary, transient, or incidental copies made on a computer as reproductions.

B. Reconciling Standards of Infringement with the Internet

Lawmakers in the United States, the United Kingdom, and the European Community have not finalized legislation regarding copyright infringement liability standards for OSPs. In the United States, the Task Force argued in favor of applying conventional liability standards to OSPs. Some U.S. legal commentators opposed the position of the Task Force and advocated limiting OSP liability to contributory or vicarious infringement standards. In the United Kingdom, legal specialists have predicted that U.K. courts will apply known copyright liability principles to OSPs and that the policy concerns of each court will determine the scope of such application.

WIPO Copyright Treaty, supra note 258, art. 8 (stating that provision of facilities to make communication is not itself communication).

282. WIPO Performances and Phonograms Treaty, supra note 20, arts. 7, 11; see supra note 258 and accompanying text (discussing reproduction right set forth in treaty).


285. Id.

286. Id.; see Scheisel, supra note 20, at A1 (discussing exclusion of language from definition of reproduction).

287. See BNA, Inc., supra note 17, at 394-95 (explaining unsettled U.S. legislation regarding OSP liability); Internet Law, supra note 4, at 19 (stating that U.K. courts have not addressed OSP liability); Internet Communication, supra note 228, at 13 (acknowledging that lawmakers in European Community need to legislate on issue of OSP liability).

288. See White Paper, supra note 2, at 114-24 (advocating application of current standards of copyright infringement liability to OSPs).

289. See, e.g., Carmichael, supra note 3, at 787 (arguing in favor of contributory and vicarious liability standards for OSPs).

290. Internet Law, supra note 4, at xii.

291. Id. at 19.
pean Community, the Commission has stated that legislators should impose liability on OSPs who directly place infringing works online.\textsuperscript{292} The Commission, however, has not yet determined the proper standard for OSP liability when third parties upload infringing works.\textsuperscript{293}

1. U.S. Proposals: White Paper and Commentary

Those in favor of limiting the liability of OSPs argue that monitoring the OSPs will restrict access to information and prevent the advancement of digital technology.\textsuperscript{294} The Task Force, however, fostered strong positions in favor of only minor modifications to the present system of copyright.\textsuperscript{295} Furthermore, the Task Force postulated that, because OSPs are in the best position to monitor infringing activities on their services,\textsuperscript{296} it is premature for legislators to hold OSPs to lower standards of liability.\textsuperscript{297}

a. Limiting Liability

Estimates indicate that trillions of bits\textsuperscript{298} of information travel through computer networks each day.\textsuperscript{299} Providers of large online services cannot keep up with the high volume of messages and files that users are uploading to their systems.\textsuperscript{300} Accordingly, an OSP’s main argument against liability is the impossibility of detecting infringing materials on its networks.\textsuperscript{301}

Proponents of reduced liability contend that a legal requirement for increased bulletin board monitoring will cause BBS op-
operators to either limit the types of materials posted or totally refrain from running an online service. These advocates maintain that copyright policy does not justify the results of increased liability because heightened liability will restrict public access to information. Furthermore, this view holds that laws should only enforce the copyright owner’s rights to the extent that protection advances the dissemination of information.

Some legal opinions foster the view that lawmakers should premise OSP liability on the contributory or vicarious liability standards, and not on a theory of direct infringement. An OSP generally does not upload or download the copyrighted material onto the service. An OSP’s lack of direct participation in file transfers makes it difficult to prove direct infringement. Conversely, under the contributory and vicarious standards, an individual does not have to physically participate in the violation of a copyright owner’s exclusive rights for a court to hold that individual liable. Thus, the opinions set forth that these crite-

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302. White Paper, supra note 2, at 116; Elkin-Koren, supra note 22, at 406. In order to decrease the cost of monitoring, online services might choose to post only materials which they own or have a license to use. Id. In addition, OSPs predict that if the laws expose them to liability for infringement, they will terminate their businesses, and cause the eventual destruction of information superhighway. White Paper, supra note 2, at 116. Similarly, the risk of liability, might discourage people from entering the online host business in the first place. Elkin-Koren, supra note 22, at 406.

303. Elkin-Koren, supra note 22, at 408.

304. Id. The economic approach to copyright law is premised on a system which insures an author’s incentive to create by granting him exclusive rights to his creations. Joyce et al., supra note 11, at 18-20. Such rights, however, limit the public’s access to the works. Id. at 18-19. The central problem lawmakers face is achieving a balance in copyright law which maintains the author’s incentive to produce new works without unduly limiting dissemination to the public. Landes & Posner, supra note 40, at 326. The balance becomes distorted by new technology. Groves, supra note 28, at 1. OSPs and commentators fear that overregulation of the Internet will unfairly tip the scales in favor of copyright owners and restrict the potential of online services to distribute information to the public. Elkin-Koren, supra note 22, at 406-08; White Paper, supra note 2, at 115-16.

305. See, e.g., Carmichael, supra note 3, at 787 (advocating contributory and vicarious standards of liability); Religious Tech., 907 F. Supp. at 1381 (holding that service provider may not be directly or vicariously liable, but may be contributorily liable).

306. See Baran, supra note 2, at 19 (stating that individuals use BBSs for posting announcements and messages among subscribers); see also Playboy, 839 F. Supp. at 1554 (citing service provider’s contention that he never uploaded infringing images onto BBS); Religious Tech., 907 F. Supp. at 1368 (stating that, other than maintaining online service, OSP failed to take any affirmative actions to make infringing reproductions). 307. See Religious Tech., 907 F. Supp. at 1368-72 (discussing arguments against finding direct liability of OSP).

308. See Carmichael, supra note 3, at 784 (discussing criteria for contributory in-
ria are more applicable to the OSP.  

Courts and legal commentators have adopted different interpretations regarding the use of the vicarious and contributory liability standards. For example, the court in *Religious Technology* stated that the subscriber fee did not amount to direct financial benefit under the vicarious liability standard. This point of view conflicts with a broader view of financial benefit. The Task Force in the White Paper stated that online service providers have a business relationship with their subscribers. This affiliation between the OSP and users may be the basis for a judgment of an OSP's financial benefit. OSPs may financially benefit from infringement because the prospect of uploading and downloading infringing works induces users to pay for online access.

One legal commentator also introduced important questions regarding the contributory liability of the OSP. In *Sony Corp. of America v. Universal City Studios, Inc.*, the U.S. Supreme Court held that selling copying equipment does not constitute contributory infringement if a consumer of the product can substantially use the product in non-infringing capacities. Analogues are also introduced important questions regarding the contributory liability of the OSP. In *Sony Corp. of America v. Universal City Studios, Inc.*, the U.S. Supreme Court held that selling copying equipment does not constitute contributory infringement if a consumer of the product can substantially use the product in non-infringing capacities.
gizing the sale of copying equipment to the provision of an online service, the commentator hypothesized that the non-infringing uses\textsuperscript{319} of an online service might disqualify the OSP from contributory liability.\textsuperscript{320} Thus far, however, the courts have found that the legitimate uses of an online service have not immunized OSP's from contributory liability for copyright infringement.\textsuperscript{321}

b. Maintaining Current Standards of Liability

The Task Force acknowledged that OSPs play an important role in increasing dissemination of works and developing the information superhighway, but asserted that a reduced liability standard for OSPs would substantially decrease the rights of copyright owners.\textsuperscript{322} The Task Force addressed the argument concerning the difficulty of screening uploaded files for infringing works.\textsuperscript{323} Indeed, the Task Force conceded the virtual impossibility of contemporaneous review of transmitted materials.\textsuperscript{324} The Task Force stated, however, that distributors of books, records, and photographs experience similar levels of difficulty when prescreening their products,\textsuperscript{325} but they, nevertheless, may be held strictly liable for infringement.\textsuperscript{326}

The Task Force also maintained that OSPs are in the best position to halt infringement and that, as such, policy favors holding the OSP liable.\textsuperscript{327} The OSPs have the ability to interact

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  \item \textsuperscript{319} See Baran, supra note 2, at 23-25 (explaining vast array of online services); Carmichael, supra note 3, at 786 (illustrating potential non-infringing uses of online service).
  \item \textsuperscript{320} Carmichael, supra note 3, at 785-86.
  \item \textsuperscript{321} See Religious Tech., 907 F. Supp. at 1374-75 (holding that defendant's liability for contributory infringement is contingent on defendant's notice of infringing postings); Sega, 857 F. Supp. at 686-87 (applying contributory infringement standard to defendant).
  \item \textsuperscript{322} White Paper, supra note 2, at 117.
  \item \textsuperscript{323} Id. at 116.
  \item \textsuperscript{324} Id.
  \item \textsuperscript{325} See id. (stating that sellers of books, records, and computer programs cannot analyze all books, records, or computer programs that they market).
  \item \textsuperscript{326} White Paper, supra note 2, at 116. The Task Force added that OSPs, like other businesses, incur expenses of doing business and need to develop ways to reduce liability costs. Id. at 118.
  \item \textsuperscript{327} Id. at 117. When notified of possible infringing activity on their service, the OSPs are capable of taking necessary action to remedy the situation, and thereby re-
with the subscribers and influence their activity with marketplace tools. The Task Force asserted that the prospect of liability may encourage OSPs to develop insurance plans, indemnification and warranty agreements, subscriber education programs, and technological innovations to track files.

2. U.K. Commentary

Thus far, U.K. courts have not addressed copyright infringement liability of OSPs. Legal specialists have speculated that because U.K. law has specific provisions addressing electronic copying, the probability is high that U.K. courts will hold Internet hosts liable for copyright infringement. One legal practitioner advanced infringement theories based on vicarious liability, issuing copies to the public, and showing or playing the work in public.
Because U.K. copyright law extends farther than U.S. law with a specific provision including reproduction by electronic means in the definition of copying, legal practitioners argue that it is more likely that the United Kingdom will be in favor of imposing liability on an OSP.\textsuperscript{334} Indeed, U.K. scholars have noted that suggestions of eliminating law on the Internet are products of wishful thinking rather than rational analysis.\textsuperscript{335} The more appropriate question for U.K. lawmakers is based on the applicability of present legislation to the information age and not on whether limitations are necessary.\textsuperscript{336} Much like the Task Force in the White Paper,\textsuperscript{337} U.K. practitioners appear to be in favor of applying known laws to deal with Internet technology.\textsuperscript{338} Legal experts opined that lawmakers need only make minor changes in U.K. copyright law to address the advances of the digital age.\textsuperscript{339}

The lack of case law relating to Internet infringement has led to speculative ideas about the application of U.K. copyright law to the newly developed technology.\textsuperscript{340} Accordingly, decisions regarding the application of one form of liability over another to OSPs will rest largely on the policy concerns of U.K. courts.\textsuperscript{341} Indeed, policy will also control the decisions relating to OSPs who cause works to be available for downloading may be susceptible to allegations of authorizing infringement even if they do not know or have reason to believe that the material is violating an individual's copyright. \textit{Id.}

\begin{itemize}
\item \textsuperscript{334} See \textit{supra} note 332 and accompanying text (discussing high probability of Internet host liability in United Kingdom); see also 1988 Act, \textit{supra} note 139, § 17(2), at 357 (providing provision for electronic copying).
\item \textsuperscript{335} See \textit{INTERNET LAW}, \textit{supra} note 4, at xi (stating that laws of each jurisdiction apply to Internet). One commentator states, “the pan-political nature of the Internet may in fact render it vulnerable rather than immune to the laws of jurisdictions around the world.” \textit{Id.}
\item \textsuperscript{336} See id. at xii (stating “[u]nless and until the existing law is found wanting there should be a presumption against further legislation.”).
\item \textsuperscript{337} See \textit{White Paper}, \textit{supra} note 2, at 116-24 (explaining Task Force’s position in favor of application of current liability standards to OSPs).
\item \textsuperscript{338} See Kavanagh, \textit{supra} note 332, at 13 (illustrating point of view of U.K. legal experts that only minor changes in copyright law are needed to adapt to Internet technology).
\item \textsuperscript{339} See Kavanagh, \textit{supra} note 332, at 13 (stating that Stephen Digby, head of intellectual property group at Withers Solicitors and Intellectual Property Rights Chairman for Eurim parliamentary lobbying group, said that “current framework [of copyright law] does not need drastic overhaul to accommodate the information society.”).
\item \textsuperscript{340} See \textit{INTERNET LAW}, \textit{supra} note 4, at xi (discussing some uncertainties about applying copyright law to Internet).
\item \textsuperscript{341} See id. at 19 (stating “[i]t remains to be seen whether a U.K. court would take
\end{itemize}
to how international organizations will handle copyright law on the Internet.\textsuperscript{342}

3. EC Commentary

The Commission recognizes the need for the European Community to develop clear rules that govern liability of OSPs.\textsuperscript{343} The Commission believes that OSPs, who directly upload infringing material onto the Internet, should be liable for copyright infringement.\textsuperscript{344} The Commission, however, is not settled on the scope of an OSP's liability when third parties upload infringing works.\textsuperscript{345}

The Commission discussed legislation requiring OSPs, upon learning that infringing material is present on their service, to take proper steps to remove the illegal files.\textsuperscript{346} As an alternative, the Commission contemplated the effect of laws requiring OSPs to block access to infringing files instead of removing them.\textsuperscript{347} Finally, the Commission advocated self-regulation of online services and encouraged legislation implementing the use of hotlines whereby members of the public may inform OSPs of the presence of copyright violations on an online service.\textsuperscript{348} The Commission postulated that self-regulation by Internet users is essential for the decentralized Internet environment and proposed that legislators consider self-regulation on an international level.\textsuperscript{349}

One legal commentator supported the holding of the court in \textit{Religious Technology}\textsuperscript{350} and stated that courts should only im-

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\textsuperscript{342} See \textit{White Paper}, supra note 2, at 130-55 (discussing various international concerns about achieving goals of copyright law under different legal regimes).

\textsuperscript{343} Internet Communication, \textit{supra} note 228, at 25.

\textsuperscript{344} \textit{Id.} at 13.

\textsuperscript{345} \textit{Id.} The Commission recommends that lawmakers consider the question of OSP liability in light of the European Community's goal of maintaining a common market. \textit{Green Paper Follow-Up}, \textit{supra} note 17, COM (96) 586 Final at 24.

\textsuperscript{346} Internet Paper Communication, \textit{supra} note 228, at 14.

\textsuperscript{347} \textit{Id.}

\textsuperscript{348} \textit{Id.} at 13, 25.

\textsuperscript{349} \textit{Id.} at 14.

\textsuperscript{350} See \textit{Religious Tech.}, 907 F. Supp. at 1375 (holding that OSP who knew of infringing postings may be contributorily liable for copyright infringement).
pose liability on OSPs when they know that infringing works are on their services and they do nothing to stop the dissemination of such material. The author stated that a high standard of liability would thwart the growth of computerized information services. That commentator stated that OSPs are not technically able to police copyright infringement on the Internet and argued in favor of decreased liability to reflect the state of technology.

III. LEGISLATORS MUST TAILOR COPYRIGHT LAWS TO FIT WITH ONLINE TECHNOLOGY

Lawmakers for the twenty-first century need to draft copyright laws to address issues created by the growth of online services. First, legislators should look to traditional copyright principles to ascertain the scope of exclusive rights for the digital age. Second, in order to ensure further development of computerized information services, courts need to apply contributory and vicarious infringement standards to OSPs.

A. Lawmakers Must Base the Exclusive Rights of a Copyright Owner in a Digital Environment on Conventional Copyright Concepts

Legislators need not prematurely revamp the system of copyright if traditional copyright concepts may properly insure adequate protection of intellectual property in the information age. Legislators may be open to ideas regarding the creation of new exclusive rights, but at the same time, lawmakers must respect classic copyright principles that have endured for centuries. In support of this proposition, the Task Force in the White Paper and the Commission determined that legislators need only expand the existing exclusive rights of copyright own-

352. Id. at 14.
353. Id.
354. See supra notes 2-6 and accompanying text (discussing growth of online services).
355. See supra note 42 and accompanying text (discussing England's first copyright act, passed in 1710, which addressed authors' rights).
Moreover, the members of WIPO signed two treaties\textsuperscript{357} that incorporated traditional exclusive rights into legislation addressing new technologies.\textsuperscript{358}

Because the traditional reproduction right\textsuperscript{359} is broad enough to encompass the transmission of works over online services,\textsuperscript{360} legislators may conveniently apply the present right of reproduction to the new technology. The drafters of the WIPO Copyright and Performances and Phonograms Treaties followed the above reasoning when they expanded the definition of reproduction to include the storage of protected works in digital form.\textsuperscript{361} Indeed, the drafters of the WIPO Copyright Treaty expressly stated that the reproduction right set out in the Berne Convention applies in the digital environment.\textsuperscript{362} The signatories of the treaties, using the conventional reproduction right as a foundation, simply established boundaries regarding the scope of the right.\textsuperscript{363} Similarly, the delegates of WIPO tailored the existing right of communication to the public\textsuperscript{364} to fit the online environment.

In the face of digitization, lawmakers may, in large part, premise copyright laws on traditional notions, but they should also be open to suggestions that will improve the distribution of rights. The replacement of the exclusive right of distribution with an exclusive right to control access\textsuperscript{366} to copyrighted works

\textsuperscript{356} See White Paper, supra note 2, at 17 (stating that lawmakers need only fine tune existing copyright law to address technological advances).

\textsuperscript{357} See supra note 20 and accompanying text (explaining that international representatives drafted WIPO Copyright Treaty and WIPO Performances and Phonograms Treaty at WIPO's December 1996 diplomatic conference in Geneva, Switzerland).

\textsuperscript{358} See supra notes 258, 263 (outlining WIPO's application of existing exclusive reproduction and communication to public rights to new technology).

\textsuperscript{359} See supra note 256 and accompanying text (outlining reproduction right in Berne Convention).

\textsuperscript{360} See Green Paper Follow-Up, supra note 17, COM (96) 586 Final at 9 (discussing possibility of broad interpretation of reproduction right).

\textsuperscript{361} See supra note 258 and accompanying text (explaining WIPO's application of reproduction right to works in digital form).

\textsuperscript{362} See supra note 258 and accompanying text (discussing expansion of Berne reproduction right).

\textsuperscript{363} See supra note 286 and accompanying text (discussing limitations on scope of reproduction right).

\textsuperscript{364} See supra note 263 and accompanying text (outlining communication to public right set out in Berne Convention).

\textsuperscript{365} See supra note 269 (showing similarities between right of communication to public set out in Berne Convention and WIPO Copyright Treaty).

\textsuperscript{366} See supra note 239 (describing right to control access to online works).
represents such an improvement. Although the Task Force and the Commission recommended that legislators apply the classic distribution right to the new technology, some legal authors contend that legislation, granting copyright owners the right to control access to their works, is more suitable for the online environment. A right of access appears to be more appropriate for the online environment, which is ultimately premised on a computer user's ability to gain admittance to information. The right of distribution arguably forces individuals to wrongly conceptualize online services as physical distributors of copyrighted matter, instead of access providers to data files. Legislators may, therefore, contemplate a slight deviation from existing copyright concepts and consider a right of access as an alternative to the distribution right.

B. OSP Liability Based on Contributory and Vicarious Infringement Standards Is Best Suited for the Online Environment

Legislators must find the optimum point of balance between the incentive to create and the dissemination of material on the Internet. Lawmakers may do so by limiting the application of the direct infringement standard and instead promoting theories of contributory and vicarious liability of the OSP. Indeed, recommending the above standards will not only maintain equilibrium between the incentive and dissemination, but will also assure proper advancement of technology without

367. See supra note 234 and accompanying text (discussing Task Force's proposed amendments to U.S. distribution right); Green Paper Follow-Up, supra note 17, COM (96) 586 Final at 19 (stating that legislators should apply distribution right to online services).

368. See supra notes 238-39 and accompanying text (advocating creation of right to control access to copyrighted works for digital environment).

369. See supra notes 5-8 and accompanying text (describing nature of online services and possible access to various forms of information).

370. See Olswang, supra note 232, at 217 (stating that legal regimes must move away from physical concepts when works exist primarily in non-physical forms).

371. See supra notes 57-40 and accompanying text (discussing competing considerations of incentive to create and dissemination of works and their effect on copyright legislation).

372. See supra notes 89, 153 and accompanying text (explaining doctrine of direct or primary infringement).

373. See supra notes 116-17, 161-66 and accompanying text (outlining requirements for contributory or secondary infringement).

374. See supra notes 190, 171-72 and accompanying text (discussing aspects of vicarious infringement).
thwarting the growth of the Information Superhighway.\textsuperscript{375}

1. Primary or Direct Liability of the OSP: Not Consistent with the Spirit of Copyright Law

Because knowledge by the OSP of the infringing activity is not material to a determination of direct infringement,\textsuperscript{376} a direct liability standard is manifestly unreasonable. A direct criterion would unfairly subject OSPs to liability for infringement that they could not prevent because the high volume of files moved through an online service makes it impossible for OSPs to monitor infringement on a system.\textsuperscript{377} Moreover, the fear of liability generated from the application of a primary or direct infringement rule will unduly limit the spectrum of services available on the Internet.\textsuperscript{378} A direct infringement standard will restrict public access to works and thwart advancement of digital technology.

Furthermore, the OSPs are not committing direct infringement. Indeed, the subscribers to the online service are committing direct infringement when they download or upload infringing material to or from their computers.\textsuperscript{379} Generally, OSPs only maintain and operate online services that automatically store and forward the users' messages.\textsuperscript{380}

Because of the many online users that choose to remain anonymous and the extreme difficulty of identifying infringers,\textsuperscript{381} it is not unreasonable to target OSPs for indemnification. Indeed, the Task Force in the White Paper stated that OSPs are

\begin{itemize}
  \item \textsuperscript{375} See supra note 302 and accompanying text (stressing importance of using new computerized methods to disseminate information).
  \item \textsuperscript{376} See White Paper supra note 2, at 115 (explaining lack of knowledge requirement for direct infringement under U.S. law); Groves, supra note 28, at 54 (illustrating that under U.K. law, knowledge is not element of primary infringement).
  \item \textsuperscript{377} See supra notes 299-300 and accompanying text (describing arguments citing OSP's difficulty in tracking files on online service).
  \item \textsuperscript{378} See supra notes 302, 352 and accompanying text (discussing how increased liability might hurt growth of online services).
  \item \textsuperscript{379} See Carmichael, supra note 3, at 767 (maintaining that subscribers, by uploading and downloading copyrighted materials, are committing acts of direct infringement).
  \item \textsuperscript{380} See, e.g., Religious Tech., 907 F. Supp. at 1367-68 (discussing OSP's role of operating service which automatically makes copies of subscribers' uploaded files).
  \item \textsuperscript{381} See White Paper, supra note 2, at 117 (illustrating that OSPs may be only individuals able to identify infringing subscribers).
\end{itemize}
in the best position to prevent infringement. Regulations, however, should not subject OSPs to liability based on a standard requiring direct violation of a copyright holder’s exclusive rights. In support of this proposition, the Religious Technology court refused to find an OSP liable under the direct criteria, arguing that the OSP did not cause the infringement. Moreover, the Commission stated that the direct liability standard need only apply to individuals who personally upload infringing material onto the Internet. The Commission, however, acknowledged that the question of OSP liability, when third parties upload infringing works, is more difficult to answer.

Though the U.K. legislature provided for electronic copying in the 1988 Act, the better alternative is to rely on the principles of secondary infringement. U.K. lawmakers created the electronic copying provision of the 1988 Act to deal largely with the problem of incidental copies made of computer programs. In contrast, to specifically address digital transfer of files, the U.K. legislature introduced the secondary infringement provision dealing with transmission of works by electronic means. In addition, commentators have suggested that U.K. courts might apply the reasoning in Religious Technology and refuse to find direct infringement.

2. The Contributory (Secondary) and Vicarious Standards: The Better Approach to OSP Liability

The less stringent standards of contributory or vicarious infringement better serve the goals of copyright law while still allowing a finding of liability for defendants like those found in Playboy and Sega. The U.S. district courts in Playboy and Sega

382. See id. (stating that best policy is to hold OSP liable).
384. Internet Communication, supra note 228, at 13.
385. Id.
386. See supra notes 159-60 and accompanying text (discussing application of U.K. provision for electronic copying to Internet).
388. See id. at 68 (stating "[t]he purpose of the additional subsection is to cover the situation where a work is transmitted in digital form via a telecommunications system with a view to its being received and stored at the other end.").
389. Internet Law, supra note 4, at 19.
390. See Dolmans & Schild, supra note 351, at 14 (arguing that court would undoubtedly find defendants in Playboy and Sega liable under lesser standard).
found the defendants liable for direct infringement when a contributory or vicarious infringement standard would have sufficed. The courts did not have to apply the law in such extreme fashion.

a. Contributory or Secondary Infringement

Because the technology has not advanced to a stage where OSPs are capable of tracking possible infringement on their services, a low threshold of liability that does not require knowledge of infringing activity would unfairly compel the OSPs to provide protection beyond their means. In contrast, the knowledge requirement for contributory or secondary infringement helps insure that OSPs will not be subject to liability for acts that they could not prevent. In support of this proposition, a commentator in the European Community argued that courts should impose liability on OSPs only when the OSPs have actual notice that infringement is occurring on their service and refuse to take corrective action. The legal scholar reaffirmed the holding in Religious Technology and argued that increased liability would thwart the growth of computerized information services.

A direct liability law will more than likely retard the growth of the Internet by causing OSPs to limit services or, even worse, avoid running online systems. In contrast, the Task Force in the White Paper argued that a high standard of liability is necessary to the development of technology that will help monitor works on the Internet. The Task Force theorized that maintaining the direct standard will spark OSPs to develop technology and marketplace tools that will reduce their liability.

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392. See Dolmans & Schild, supra note 351, at 14 (discussing present state of technology regarding ability to monitor copyright infringement on online service).
393. See supra note 351 and accompanying text (discussing role of notice in ascertaining OSP liability).
394. See Religious Tech., 907 F. Supp. at 1375 (holding that court may impose liability on OSPs who had notice of infringing works on their services).
395. See supra notes 352-53 and accompanying text (arguing that liability standard, which does not take into account OSPs' capabilities to track infringement, will hinder growth of online services).
396. See supra note 302 and accompanying text (explaining possible limitations of online service when heightened liability exists).
397. White Paper, supra note 2, at 123.
398. Id.
better view, however, is that a strict standard of liability is not needed to inspire new technology. In support of this argument, legal commentators stated that market demands for access fees will be the driving forces that cause the development of technology to monitor a subscriber's use.\textsuperscript{399} Therefore, with market forces in place, the need for a strict liability standard is no longer obvious.

In addition, those afraid of reducing liability must also understand that knowledge under the contributory and secondary standards is open to interpretation by the courts. Both the U.K. and U.S. courts, for example, employ a malleable test of knowledge of infringing activity, allowing broad interpretations of knowledge.\textsuperscript{400} For instance, the \textit{Sega} court concluded knowledge when the OSP encouraged infringing activity.\textsuperscript{401} The court did not require that the OSPs know exactly when subscribers uploaded or downloaded the infringing materials.\textsuperscript{402} Courts will, therefore, have the power, if the situation demands, to create strict precedents that drive OSPs to carefully supervise the activities on their services and sufficiently protect copyright.

Finally, the contributory and secondary infringement provisions are closely akin to the activities of an OSP. In order to encompass the activities of the OSP under contributory or secondary infringement, the courts would not have to stretch the provisions very far. For example, under U.S. and U.K. law, a person may be liable for contributory or secondary infringement by supplying the means for infringement.\textsuperscript{403} Similarly, OSPs, by oper-

\textsuperscript{399} See Dolmans \& Schild, \textit{supra} note 351, at 14 (stating “market forces, even absent the threat to access providers of copyright infringement liability, will lead to the development of technological solutions. After all, such technological solutions are closely associated with efforts to develop new ways to meter and charge for a subscriber’s use of content, and will be of natural interest to access providers and copyright owners alike.”).

\textsuperscript{400} See \textit{supra} note 166 and accompanying text (detailing knowledge requirement under U.K. law); \textit{Religious Tech.}, 907 F. Supp. at 1874 (explaining requirement of notice); \textit{Sega}, 859 F. Supp. at 686-87 (illustrating U.S. courts’ interpretations of knowledge).

\textsuperscript{401} \textit{Sega}, 859 F. Supp. at 687.

\textsuperscript{402} \textit{Id.} at 686-87.

\textsuperscript{403} See Carmichael, \textit{supra} note 3, at 784 (stating that provision of equipment needed for infringement may amount to contributory infringement); \textit{Sega}, 857 F. Supp. at 686 (concluding that defendant’s provision of facilities may result in contributory infringement); 1988 Act, \textit{supra} note 199, § 24, at 362 (outlining that acts of secondary infringement may include providing means for making infringing reproductions).
ating and maintaining online services are supplying a way by which subscribers may produce infringing copies.

In addition, under the 1988 Act, an individual commits secondary infringement by transmitting copyrighted material in digital form over a telecommunications system with knowledge that copies of the work will be made upon receipt of the transmission. The nature of an online service is such that subscribers may transmit copyrighted works over telephone lines for downloading onto a user's computer. Accordingly, U.K. courts might broadly construe transmitting copyrighted material to encompass the operation and maintenance of an online service by an OSP.

b. Vicarious Liability

The vicarious liability standard is suitable for OSPs because the criteria automatically takes into account the advancement of technology and the ability of OSPs to control online infringement. Vicarious liability, by its definition, presupposes that an OSP is capable of supervising a subscriber's infringing activity. Implicit in a finding of vicarious infringement is the assumption that an OSP has the technological capabilities to monitor copyrighted material on the system. For example, the court in Religious Technology considered the question of vicarious liability in light of evidence that modifications to the OSP's software would have given the OSP the ability to track incoming postings. If individuals, however, are not able to control the infringing actions of others, they cannot be found vicariously liable. Thus, the vicarious standard does not unfairly require OSPs to track infringing files beyond the reach of technology.

404. 1988 Act, supra note 139, § 24, at 362; see Groves, supra note 28, at 68 (explaining that lawmakers added provision to address transmission of works in digital form because 1988 Act already covered broadcasts and cable programs).

405. See Baran, supra note 2, at 28 (explaining operation of online service and subscribers role in obtaining information).

406. See supra note 130 and accompanying text (outlining U.S. standard of vicarious liability); Stone, supra note 139, at 56 (discussing vicarious infringement under U.K. law).

407. Religious Tech., 907 F. Supp. at 1375-76; see supra note 131 and accompanying text (explaining effect of evidence regarding technological capabilities to track files on determination of OSP's control over subscribers).
CONCLUSION

Legislators on the brink of the twenty-first century must develop copyright laws to accommodate the continuing worldwide expansion of online communications. The new computerized methods of reproduction and dissemination of copyrighted works are forcing lawmakers to consider the scope of protection afforded to copyright owners. Specifically, government officials from all over the world need to apply existing copyright principles and define the scope of a copyright owner’s exclusive rights in the digital environment. In addition, legislators and courts must determine fair and equitable liability standards for OSPs. OSP liability standards must reflect the state of technology and OSPs' abilities to track infringement on their services. Courts cannot hold OSPs to a direct liability standard of infringement. Instead, in order to insure the growth of the Information Superhighway, courts should impose infringement standards based on the OSPs' knowledge of and ability to block access to infringing works that appear on the Internet.