Making Cyberspace Safe for Copyright: The Protection of Electronic Works in a Protocol to the Berne Convention

Robert A. Cinque*
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Abstract

This Note discusses the prevalence of copywrited material on the internet, and the increasing access to said material. The Berne Convention is the leading international agreement to protect this type of material, though its reach and efficacy are limited. Provisions of the Convention are not stringently enforced. The Note explores the costs and benefits of enforcement, and potential protocols or policies to be adopted.
NOTES

MAKING CYBERSPACE SAFE FOR COPYRIGHT: THE PROTECTION OF ELECTRONIC WORKS IN A PROTOCOL TO THE BERNE CONVENTION

Robert A. Cinque*

It is . . . in the nature of things that the work of man's genius, once it has seen the light, can no longer be restricted to one country and to one nationality. That is why . . . the imperative necessity has been shown of protecting [authors’ rights] in international relations.**

INTRODUCTION

Telecommunications1 and the “information superhighway”2 facilitate instantaneous mobility of literary and artistic works in the form of text, video, and audio recordings.3 With the click of a mouse or the tap of a key, virtually anyone with a computer and a telephone can obtain vast quantities of information from almost anywhere on the globe.4 These conditions pose a

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1. See WEBSTER’S THIRD NEW INTERNATIONAL DICTIONARY OF THE ENGLISH LANGUAGE, UNABRIDGED 2349 (1986). Telecommunications is the science of communication at a distance, as by cable, radio, telephone, telegraph or television. Id.

2. See Priscilla Walter & Eric Sussman, Protecting Commercially Developed Information on the NREN, COMPUTER LAWYER, Apr. 1993, at 1. The National Research and Education Network (NREN), a high-speed, comprehensive national computer network under development in the United States, is often referred to as an “information superhighway.” Id. It is intended to replace the Internet, the loose network of networks that currently serves as the “information highway.” Id. Various European communications companies have also launched fiber-optic, videoconferencing, and data networks. Bernd Steinbrink, Europe’s Many Data Highways, BYTE, Mar. 1994, at 58.

3. Id.

4. ELECTRONIC PUBLISHING ISSUES: A WORKING PAPER, NATIONAL WRITERS UNION 1
formidable challenge to the international protection of intellectual property.\textsuperscript{5}

Copyrighted works, which include films, novels, musical works and other forms of expression,\textsuperscript{6} are especially vulnerable to piracy.\textsuperscript{7} The infringement of patented designs and trademarks\textsuperscript{8} requires the use of a patent or trademark in commerce.\textsuperscript{9} Any consumer, however, is a potential customer for a free copy of a work protected under copyright.

Copyrighted works are also easily exploitable by those who

\textsuperscript{5} (June 30, 1993) [hereinafter Working Paper]. The development of the inexpensive home computer has fueled the information revolution. \textit{Id}.

\textsuperscript{6} Dan L. Burk, \textit{Patents in Cyberspace: Territoriality and Infringement on Global Computer Networks}, 68 Tul. L. Rev. 1, 50 (1998). "Th[e] increasing porosity of national boundaries has made it difficult for nations to exercise traditional aspects of sovereignty, such as monitoring and controlling the flow of goods into and out of the country." \textit{Id}. Some authors have suggested that in an electronic environment, copyright notions will need to be substantially modified. Reva Basch, \textit{Books Online: Visions, Plans and Perspectives for Electronic Text}, Online, July 1991 at 13; Susan Wagner, \textit{New Commissioner Deeply Involved in Copyright}, Pub. Wkly, Apr. 4, 1994, at 40, 42 (noting Commissioner of the U.S. Patent and Trademark Office Bruce Lehman's discussion of impact of digital technology on copyright laws). The mutability of electronic works renders them unprotectible under copyright laws written for print publications. \textit{Id}.


\textsuperscript{8} ROBERT P. BENKO, PROTECTING INTELLECTUAL PROPERTY RIGHTS: ISSUES AND CONTROVERSIES 17 (1987).


\textsuperscript{9} See DAVID YOUNG ET AL., TERRELL ON THE LAW OF PATENTS 176-82 (14th ed. 1994) (defining patent infringement as unauthorized use of patented design); T.A. BLANCO WHITE & ROBIN JACOB, KERLY'S LAW OF TRADE MARKS AND TRADE NAMES 261 (12th ed. 1986) (defining infringement of trademark as unauthorized use of mark in relation to goods and services).
would sell illegal copies. Printed material, for example, may be reproduced by anyone with a computer and a laser printer, and may be sold for profit. This includes works in cyberspace, which by their nature, may easily be accessed by would-be infringers.

Several policy considerations support the protection of copyright. There is disagreement, however, as to whether copyright protection is a worthwhile pursuit. Some commentators have characterized the protection of intellectual property as a benefit to the industrialized nations at the expense of developing nations.

The Berne Convention for the Protection of Literary and Artistic Works ("Berne Convention" or "Convention") and the

10. Pamela Samuelson, Digital Media and the Law, Communications of the Assoc. for Computing Machinery, Oct. 1991, at 23. "Newer reprography equipment has often been cheaper, less bulky, and more widely available than printing presses, and often requires less skill to operate. Copying ... has, consequently, become more difficult to trace, while at the same time becoming of greater economic concern to copyright owners." Id.

11. Id.

12. See Burk, supra note 5, at 3 n.9 (describing origins of word "cyberspace"). A science fiction novelist coined the term. William Gibson, Neuromancer 51 (1984). Gibson defined cyberspace as "a consensual hallucination experienced daily by billions of legitimate operators." Id. The futurists Alvin & Heidi Toffler have proclaimed cyberspace as "the land of knowledge." Philip Elmer DeWitt, Welcome to Cyberspace, TIME, Spring 1995 Special Issue, at 6 (quoting Alvin Toffler & Heidi Toffler). In this Note, the word "cyberspace" will be used to refer to the information environment, including electronic bulletin board systems, the Internet and similar "networks of networks," and the "information superhighway" as they are accessed by individuals via computer modem. See Burk, supra note 5, at 3 n.9 (defining cyberspace). For a general discussion of cyberspace, see Ethan Katsh, Law in a Digital World: Computer Networks and Cyberspace, 38 VILL. L. REV. 403 (1993).

13. Id. at 26. "Any work that can be represented in other media can now be represented in digital form. In this form it can be used in a computer ... Consequently, works in digital form are inherently easier to steal." Id. at 26-27.


Universal Copyright Convention\textsuperscript{18} ("UCC") both address the international protection of copyright. The Berne Convention has emerged as the pre-eminent international agreement on the protection of literary and artistic works.\textsuperscript{19} The Berne Convention calls for minimum standards of protection among its signatories.\textsuperscript{20} There is no mechanism, however, compelling countries to enforce these standards for authors from other nations.\textsuperscript{21}

The Committee of Experts on a Possible Protocol to the Berne Convention\textsuperscript{22} ("Committee"), convened by the World Intellectual Property Organization\textsuperscript{23} ("WIPO"), is currently considering whether to adopt strong enforcement measures in a protocol to the Berne Convention.\textsuperscript{24} The Committee has examined

\footnotesize


\textsuperscript{21} Berne Convention, supra note 6, arts. 13(3), 16(1-2), 828 U.N.T.S. at 244-45, 248-51, S. TREATY DOC. No. 99-27 at 9, 12. Article 13(3) of the Convention authorizes seizure of recordings of musical works in a country under compulsory license and imported into a country where they are considered to infringe an author's copyright. Id. Article 16(1) and (2) authorize seizure of infringing copies of works subject to seizure in any country of the Union where the work is protected. Id. Neither compels a country to take such action against any infringer. Id.; see Beryl R. Jones, Legal Framework for the International Protection of Copyrights, Practising Law Institute, PLI Order No. G4-9906 (1993), 867 PLI/Pat 165, 170 (describing lack of enforcement measures in international copyright agreements).

\textsuperscript{22} Committee of Experts on a Possible Protocol to the Berne Convention for the Protection of Literary and Artistic Works, First Session, Questions Concerning a Possible Protocol to the Berne Convention Part I, Memorandum Prepared by the International Bureau, WIPO Doc. BCP/CE/1/2, ¶ 1, reprinted in 28 COPYRIGHT 30 (July 18, 1991) [hereinafter First Session Memorandum].

\textsuperscript{23} See Jones, supra note 21, at 171. WIPO, founded in 1967, is an agency of the United Nations charged with promoting the protection of intellectual property and assisting developing nations in creating intellectual property laws and enforcement mechanisms. Id. WIPO has 128 members, including signatories to the Berne Convention, United Nations members, International Atomic Energy Agency members, and parties to the statute of the International Court of Justice. Id.

\textsuperscript{24} First Session Memorandum, supra note 22, 28 COPYRIGHT at 30; Committee of Experts...
mechanisms for enforcing protection of copyrighted works created by non-citizen authors in the course of its discussions. These discussions have addressed several measures aimed at strengthening enforcement, including recognition of the need for copy-protection systems, rental rights, and importation rights.

This Note examines the benefits and drawbacks of strong enforcement measures for digitally-transmitted works. Part I discusses basic principles of copyright law, the major international agreements covering copyright, and unilateral acts by some nations to enforce copyrights of their citizens in other countries. Part II examines the measures that WIPO is currently considering for a possible Protocol to the Berne Convention, particularly regarding international copyright protection of electronically-transmitted works. Part III argues that the World Intellectual Property Organization should adopt strong enforcement measures for the protection of electronically-transmitted works in a future Berne Protocol. This Note concludes that strong enforcement of copyright in these works will benefit both developing and industrial nations, as authors from all nations will be assured

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27. Fourth Session Memorandum, supra note 24, at 14, ¶ 50. Rental rights refer to the right to authorize rental of a copy of a work. Id.
28. Id. Importation rights refer to the right to authorize the entry of copies of a work into a country. Id.
that their works will not be exploited in cyberspace without their permission.

I. INTERNATIONAL COPYRIGHT PROTECTION

The policies cited by commentators in support of the protection of copyright seek to balance the interests of authors and their audiences. In applying these policies to electronically-transmitted works, WIPO and other international bodies have begun to address the novel problems of protecting such works. Protecting works across borders, electronic or otherwise, is of great importance to major producers of intellectual property, some of whom have encouraged the use of unilateral measures in an effort to effect international enforcement of intellectual property rights.

A. Copyright and Technology

The copyright law of many nations derives from the monopolies granted printers after the invention of the printing press.

30. See Edmund L. Andrews, Outlook 1995: Technology & Media; Forward, but How Fast, in Interactive TV, N.Y. Times, Jan. 3, 1995, at C16 (describing electronically-transmitted video programs); Robert Hilburn & Chuck Philips, Rock's Top 40 Power Players, L.A. Times, Aug. 28, 1994, at 7 (discussing possible impact of electronic transmission of musical works). In this Note, the term "electronically-transmitted works" will be used to refer to works, either created in digital electronic form, such as synthesized musical works and visual works created with computer-art programs, or created in a more traditional form (writings, visual works, musical works) and copied in digital electronic form, and thus capable of being sent over telecommunications networks.
33. See Howard B. Abrams, The Historic Foundation of American Copyright Law: Ex-
Over the centuries, copyright has been expanded to include pictorial, photographic, musical, and cinematic works, as well as computer programs. Electronically-transmitted works are also protected by copyright, although the ease of copying such works hinders enforcement of that protection.

1. The Policies Supporting Copyright Protection

Copyright laws do not protect ideas, but rather the expressions of those ideas. An expression must be fixed in a tangible medium, such as writing on paper, exposed photographic film, or a recording on magnetic tape, in order to receive protection. Modern copyright laws may be traced back to the limited monopolies granted to printers by the French Crown in the seventeenth century and to the eighteenth-century Statute of Anne in England.

Three major policies support the protection of copyright. The most widely cited of these is known as incentive/dissemina-
This view proposes that society benefits from the continued production of works by authors, and that this production may be ensured by granting authors the incentive of ownership rights to their works for a limited time. Authors may then sell or license the rights to their works to others, thus disseminating ideas throughout society.

The remaining two policies supporting protection of copyright include commercial morality/fairness and natural law. The application of the commercial morality/fairness policy rewards those who perform intellectual labor in producing a work, and punishes those who appropriate a work and profit from it without having extended effort in creating the work.

41. Id. § 5[1][a], at 6; see Sony Corp. of America v. Universal City Studios, 464 U.S. 417 (1984).

[Copyright] is a means by which an important public purpose may be achieved. It is intended to motivate the creative activity of authors... by the provisions of a special reward, and to allow the public access to the products of their genius after the limited period of exclusive control has expired... Because this task involves a difficult balance between the interest of authors and inventors in the control and exploitation of their writings and discoveries on the one hand, and society's competing interest in the free flow of ideas, information, and commerce on the other hand, our... copyright statutes have been amended repeatedly...

42. HANSEN, supra note 14, § 5[1][a], at 6.

43. Id.

44. Id.

45. Id. § 5[1][b], at 6 (describing commercial morality/fairness theory of copyright protection); Feist Publications, Inc. v. Rural Telephone Service, 499 U.S. 340, 111 S. Ct. 1282 (1991) (publisher who copied contents of telephone book into new work held not infringing; contents were merely facts, therefore not protectible under copyright; "sweat-of-the-brow" struck down as basis for protection).


47. See HANSEN, supra note 14, § 5[1][b], at 6 (discussing "sweat-of-the-brow" protection against "free riders").

48. See LATMAN, supra note 39, at 4 (quoting Massachusetts Act of March 17, 1783: "there being no property more peculiarly a man's own than that which is procured by the labor of his mind"); see also HANSEN, supra note 14, § 5[1][b], at 6 (discussing com-
Under natural law, a creative work is the property of its author by virtue of her efforts to bring it into existence, and is hers to do with as she wishes.\textsuperscript{49}

2. The Scope of Copyright Protection

Copyright protects the expressions of an author, and not the ideas expressed.\textsuperscript{50} An author is free to independently write a story incorporating ideas used by another author, but not to copy another's expressions verbatim.\textsuperscript{51} Certain literary and musical expressions, however, have become so common, or so essential to a work of a particular genre, as to be uncopyrightable.\textsuperscript{52} These devices, such as the showdown in a Western movie,\textsuperscript{53} or the tonic-subdominant-dominant harmonic progression found in many forms of popular music,\textsuperscript{54} are often referred to as "sweat-of-the-brow," has been relied upon in U.S. court decisions to afford protection to works that would not otherwise fall under the Copyright Act, such as directories and similar compilations. See, e.g., Rockford Map Publishers, Inc. v. Directory Service Co., 768 F.2d 145 (7th Cir. 1985), \textit{cert. denied}, 106 S. Ct. 806 (1986) (infringement found for copying of directory information). The Supreme Court, however, recently struck down "sweat-of-the-brow" as a basis for copyright protection in Feist Publications, Inc. v. Rural Telephone Service, 499 U.S. 340, 111 S. Ct. 1282 (1991). The latest report from the Committee of Experts on a Possible Protocol to the Berne Convention discussed additional protection for such works under a "\textit{sui generis} 'unauthorized extraction right'" that would allow database makers to prevent others from using information taken from the database regardless of whether such information qualified for copyright. \textit{Fourth Session Report}, supra note 24, at 10, ¶ 42.

\textsuperscript{49} See \textit{Hansen}, supra note 14, at ¶ 5[1][c] (discussing natural law theory of copyright protection).
\textsuperscript{50} 17 U.S.C. § 102(b).
\textsuperscript{51} See Nichols v. Universal Pictures, 45 F.2d 119 (2d Cir. 1930) (L. Hand, J.) (distinguishing between ideas and expression regarding plot elements of dramatic works).
\textsuperscript{53} \textit{Cf. John Harrington, The Rhetoric of Film} 122 (1973) (describing obligatory scenes in film). "As soon as he sees the marshal and the bad guy as dominant characters, for instance, a viewer knows they will inevitably confront one another." \textit{Id}. Such scenes, to be effective, must have an element of predictability, yet not be precisely predictable. \textit{Id.} at 128. They share a predictable nature with ritual, which the sociologist Erving Goffman defines as a "perfunctory, conventionalized act." \textit{Erving Goffman, Relations in Public: Microstudies of the Public Order} 62 (1971).
\textsuperscript{54} \textit{Dave Marsh, Louie Louie} 4 (1993). "[Composer Frank] Zappa . . . notices that 'Louie' is built around one of the two basic 1950's rock'n'roll chord patterns (I-IV-V)." \textit{Id}. The predecessor of rock'n'roll, the blues, employs a similar harmonic structure, as well as a distinctive three-line pattern. David Evans, \textit{Blues and Modern Sound: Past, Present and Future}, in \textit{Rock Music in America} 8 (Janet Podell ed. 1987).
to as *scènes à faire*.

A purposeful act of copying is an essential element of a copyright infringement. Thus, two identical works would both be protected by copyright, so long as both were independently created. In the United States, for example, case law constructively eradicates the notion of an accidental infringement on the part of a creator. An initial finding by a judge that an accused infringer could not have, or was extremely unlikely to have seen, heard, or read the work in question normally results in a dismissal of an action. Those who intentionally copy a work, however, are held to be infringing even where they have no reason to know the work is protected under copyright.

The protected work is an intangible property, separate from its physical embodiment, such as a book, phonograph or compact disk, audio tape, video tape, or computer disk. One who acquires a book, tape, or disk is free to resell it, and the author

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55. *Atari*, 672 F.2d at 616. *Scènes à faire* are “incidents, characters or settings which are as a practical matter indispensable . . . in the treatment of a given topic.” *Id.*

56. See Selle v. Gibb, 567 F. Supp. 1173 (N.D. Ill. 1983), aff’d 741 F.2d 896 (7th Cir. 1984) (affirming district court’s judgment n.o.v. on ground that plaintiff presented no credible evidence that defendants Bee Gees had access to song allegedly infringed). *But see* Heim v. Universal Pictures Co., 154 F.2d 480 (2d Cir. 1946) (holding plaintiff failed to show defendant copied his song, even though it was widely distributed, because both works were substantially similar to public-domain classical work).

57. E.P. SKONE JAMES, COPINGER AND SKONE JAMES ON COPYRIGHT § 1-1, at 1 (13th ed. 1990).


59. *Id.*

60. *Id.* at 1180-81.

61. *Id.; see supra* note 56 and accompanying text (discussing independent creation of identical works).

62. LATMAN, supra note 39, at 407.


64. 17 U.S.C. § 109(a). “[T]he owner of a particular copy or phonorecord lawfully made under this title . . . is entitled, without authority of the copyright owner, to sell or otherwise dispose of the possession of that copy or phonorecord.” *Id.* This is known as the “first sale” doctrine, and dates back to the 1909 Copyright Act in the U.S. *Id.*
loses all rights to control the physical copy upon its sale. An author's copyright, as the intangible property, is not transferred to one who obtains a copy of the work.

3. Protecting Copyrighted Works In Cyberspace with Emerging Technologies

Before the telecommunications revolution, piracy of copyrighted works could be kept in check by customs agents. The copyright holder could simply have infringing copies of a work seized at the border. The manner in which works are made available to the public, however, is undergoing radical change. Electronic publishing, the first publication of writings in cyberspace, is already a reality. Moreover, visual and musical works

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66. Two related rights, rental rights and the right of importation, were discussed at the Fourth Session of the Meeting of the Committee of Experts. Fourth Session Report, supra note 24, at 14-18, ¶ 60-71. Rental rights refer to the right to authorize renting of a copy of a work. Fourth Session Memorandum, supra note 24, at 14, ¶ 50. Importation rights refer to the right to authorize the entry of copies of a work into a country. Id. One observer noted that a rental right was unnecessary, because of the benefits that rental bestows on all parties involved. Fourth Session Report, supra note 24, at 16, ¶ 63. Most of the other parties, however, supported rental rights in some form. Id. at 15-16, ¶¶ 62-64. The right of importation, on the other hand, generated a divided response. Id. at 16, ¶ 65. Supporters of an importation right argue that such a right is necessary to "ensure the principle of territoriality in copyright." Id. at 16, ¶ 66. The right would also stem widespread parallel importation, which would favor large, global producers of works over smaller suppliers, who serve small and specialty markets. Id.

67. In opposition to an importation right, some delegations argued the theory of "international exhaustion," i.e., that by distributing copies in a country, an author exhausts the right to prevent their importation into any other country. Id. at 17, ¶ 68. The sovereign right of nations to decide the issue was also argued. Id. Finally, it was argued that the right of importation was inherent in the right of an author to control reproduction of her work, and was therefore superfluous. Id.

68. The issue of importation rights remains undecided. Id. at 18, ¶ 71. The Chairman of the Committee has tabled the issue for further discussion. Id.


70. See, e.g., 19 C.F.R. §§ 133.0-133.53 (1994); Hansen, supra note 14, § 4, at 5.

71. 17 U.S.C. § 101. Publication is defined as the distribution of copies by sale, rental, lease or lending, or the offer to distribute copies to others for further distribution. Id.

72. Id. See Basch, supra note 5 (discussing electronic publishing); WORKING PAPER, supra note 4, at 1-2 (describing existing and future methods of electronic publishing).
are now regularly copied and created in digital form, and then brought into cyberspace.\textsuperscript{72} The threat to copyright owners arises from the fact that the same technology that allows one to view or hear a work may also be used to copy that work.\textsuperscript{78}

The copying and storage of works in computer systems is widely considered to be a reproduction or copy of the work under Article 9(1) of the Berne Convention.\textsuperscript{74} U.S. case law has also held that loading a work into a computer's random-access memory constitutes copying.\textsuperscript{75} The copying of works from other media into digital form has also formed a basis for finding copyright infringement.\textsuperscript{76}

There are technological barriers available to senders of electronically-transmitted works, which can deter unauthorized copying.\textsuperscript{77} Senders of audio-visual material via satellite signals, for example, may encode their signals to deter unauthorized reception.\textsuperscript{78} The sending of audio-visual material over computer networks is currently hindered by the limited capacities of the telephone and cable companies that carry the data.\textsuperscript{79} Experiments

\textsuperscript{72} See Samuelson, supra note 10, at 26.
\textsuperscript{73} Id. "Selling computer programs (or for that matter, other works in digital form) has become comparable to selling a customer the Ford automotive plant at the same time as selling him or her a Ford automobile. Each copy of the program has the potential to become its own factory." Id. at 24.
\textsuperscript{74} Second Session Report, supra note 24, at 98, \textsuperscript{1} 48. See Berne Convention, supra note 6, art. 9(1), 828 U.N.T.S. at 238-39, S. TREATY DOC. NO. 99-27 at 7 (setting forth terms of protection for literary and artistic works).
\textsuperscript{75} MAI Systems Corp. v. Peak Computer, 991 F.2d 511 (9th Cir. 1993).
\textsuperscript{76} Playboy Enterprises, Inc. v. Frena, 839 F. Supp. 1552 (M.D. Fla. 1993). In Playboy, an electronic bulletin-board operator was held liable for copyright infringement of photographs published in plaintiff's magazine where the operator allowed uploading and downloading of digital versions of the photographs. Id.
\textsuperscript{77} James J. Merriman, Note, Battling Motion Picture Pirates in Turbid International Waters, 23 CASE W. RES. J. INT’L L. 623, 637 (1991). It is important to note that encoding is an imperfect defense, as those who would construct decoding devices are often quick to develop mechanisms to defeat encoding. Id.
\textsuperscript{78} Id.
\textsuperscript{79} Andy Reinhardt, Building the Data Highway, BYTE, Mar. 1994, at 46, 48-49. While U.S. telephone systems offer superior point-to-point connectivity, and tie into a large-capacity fiber-optic national network, the simple unshielded copper-wire connections between most homes and businesses and the trunk lines limit the bandwidth of data that may be sent through the system. Id. Conversely, cable systems offer broadband connectivity, in the form of the coaxial linkups to each of 60 million homes in the United States, but the systems themselves are not interconnected, and each system, structured as a signal-delivery system rather than as a communications system, is poorly suited to point-to-point communications. Id.
in video-on-demand, however, may soon enable computer users to send and receive full-length motion pictures, in digital form, over telephone lines.

Unauthorized copies of musical recordings made utilizing the earlier analog technology are of inferior quality to the originals. The recording industry has now shifted almost entirely to marketing works on compact discs ("CDs"), which utilize digital technology. The works on CDs may then be copied onto digital audio tape ("DAT"), and the copy will be identical to the original. Moreover, the copy will be transmittable as a digital work.

The encryption of works in cyberspace is cited as a barrier to widespread copying. Invisible electronic signatures would be encoded onto each work, and these signatures would be de-

80. See Larry Press, Personal Computing: The Internet and Interactive Television, Communications of the Assoc. for Computing Machinery, December 1993, at 19 (discussing video-on-demand system through which consumer has access to video programs, much like pay-per-view systems, but may view program at any time, rather than at times set by provider). One such experiment, taking place in Orlando, Florida, will have "[p]erhaps 50 popular movies . . . on-line at all times, with the top 10 or so on multiple servers." Id. at 21; see also Dave Mayfield, For Video on Demand, The Future Is Now, Virginian-Pilot & Ledger-Star, Mar. 12, 1995, at D1 (describing video-on-demand pilot projects in Virginia).

In addition, there has been discussion of the prospect of digital audio-on-demand, also referred to as the "celestial jukebox." Cf. William H. O'Dowd, Note, The Need For a Public Performance Right in Sound Recordings, 31 Harv. J. Legis. 249, 256 (1993) (describing novel delivery system for recorded musical works).

81. Press, supra note 80, at 21.

82. Teresa Riordan, Writing Copyright Law for an Information Age, N.Y. Times, July 7, 1994, at D1, D5.

83. Cf. Dan Moreau & Adrienne Blum, Update on CD players; What You Need - And Don't Need - To Get Good Sound From Compact Discs, Changing Times, July 1989, at 63 (reporting that record companies discontinued issuance of new releases on long-playing records in favor of releasing on CD only); Christie Brown, Where the Beatles Outsell Elvis, Forbes, Mar. 5, 1990, at 146 (reporting that vinyl records are becoming collectors' items as record companies stop producing them).

84. Barry Fox, Head to Head in the Recording Wars; Competition Between Two New Digital Recording Products, New Scientist, Oct. 17, 1992, at 24, 27; CBS Records: If You Can't Beat 'Em, Sell, Newsweek, Nov. 30, 1987, at 53; Riordan, supra note 82, at D5.

85. See supra note 72 and accompanying text (explaining transmittability of works in digital form).

tectable in copies of the work. In addition, authenticating codes could automatically reveal whether a document has been altered.

Anti-encryption devices, however, could be developed to defeat such protections. The Committee of Experts on the Berne Protocol is considering penalties for the possession of such devices, and the Information Infrastructure Task Force, a group created by order of U.S. President Bill Clinton, held a virtual conference to discuss a similar amendment to the U.S. Copyright Act of 1976. The Committee proposed such measures in order to promote protection of electronically-transmitted works. These measures have generated opposition, however, on the grounds that such a prohibition would necessarily be vague and difficult to apply. The prohibition would also render the making of archival copies of copy-protected computer software impossible.

B. International Agreements Covering Copyright

The Berne Convention (or "Convention") is the major in-
ternational copyright agreement.\textsuperscript{96} Created as a means of providing international protection for literary works,\textsuperscript{97} the Convention now encompasses protection for dramatic, musical, choreographic, cinematographic, and other forms of artistic expression.\textsuperscript{98} Its purpose is to advance uniformity of protection across borders\textsuperscript{99} by promoting national treatment.\textsuperscript{100}

1. The History of the Berne Convention

The Berne Convention was conceived at a literary congress,\textsuperscript{101} with the author Victor Hugo presiding.\textsuperscript{102} The congress resolved that nations should grant all literary, scientific, and artistic works identical protection, regardless of their national ori-

\textsuperscript{96} See \textit{supra} note 19 and accompanying text (noting European Community and TRIPS reliance on Berne provisions; Marian Nash Leich, \textit{U.S. Practice: Contemporary Practice of the United States Relating to International Law}, 83 A.J.I.L. 63, 65 (1989). The UCC, the other international copyright agreement, was negotiated largely on the strength of U.S. efforts during the post-World War II era. \textit{Id.; Latman, supra} note 39, at 41. The prospect of harmonizing U.S. copyright law and certain provisions of the Berne Convention, such as registration of works, appeared unlikely at that time. \textit{Latman, supra} note 39, at 9. The Berne Convention's standard of protection is higher than that of the UCC. Melville B. Nimmer \textit{et al.}, \textit{Copyright and Other Aspects of Entertainment Litigation} 1-2 (4th ed. 1991). The UCC's major features are its national treatment provision and its minimum term of protection, which is the life of the author plus 25 years. \textit{Skone James, supra} note 57, §§ 17-69 to 17-73, at 576-78.


\textsuperscript{99} \textit{Id.} An example of the need for uniform standards is illustrated by a discrepancy between U.S. and British copyright law. 3 Nimmer, \textit{supra} note 29, § 17.04[D][1], at 17-28. Many U.S. works produced before September 27, 1957 (the effective date of the United Kingdom's adoption of the UCC) were in the public domain in the United Kingdom, not having acquired protection under one of the wartime Orders covering U.S. works before 1945, even as they were still protected in the U.S. \textit{Id.; see Skone James, supra} note 57, §§ 17-114, 17-115, at 596-97 (describing wartime orders and protection of U.S. works in the United Kingdom). These works gained protection in United Kingdom upon the United States' accession to the Berne Convention. \textit{Id.} § 17-115, at 597. The United Kingdom has made provisions to protect those publishers who had invested in the exploitation of such works when they were still in the public domain. \textit{Id.}

\textsuperscript{100} Sam Ricketson, \textit{The Berne Convention for the Protection of Literary and Artistic Works: 1886-1986} § 5.54, at 195-96 (1987). Under the principle of national treatment, a Berne Convention country must protect the works of authors from other Berne Convention countries to the same extent it protects works of its own authors. \textit{Id.}

\textsuperscript{101} Société des gens des lettrés de France, \textit{Congrès littéraire internationale de Paris} 369-70 (1879). The Société des gens des lettrés, a French literary organization, held an international literary congress on June 17, 1878. \textit{Id.}

\textsuperscript{102} \textit{Id.} at 369.
gin.\textsuperscript{103} No nation, declared the congress, should grant preferential protection to works created by its own nationals.\textsuperscript{104}

This congress formed the International Literary Association ("ALAI").\textsuperscript{105} After a series of annual meetings, ALAI adopted a proposal recognizing that, in order to guarantee protection of intellectual property in all countries, an international union of literary property was required.\textsuperscript{106} In 1883, ALAI convened at Berne, Switzerland, and began the deliberations that produced the Berne Convention three years later.\textsuperscript{107}

The Convention has undergone several revisions since its adoption in 1886.\textsuperscript{108} The 1896 Paris Revision Conference\textsuperscript{109} ("Paris Conference") added protection for posthumous works\textsuperscript{110} and clarified translation rights.\textsuperscript{111} In addition, the Paris Conference adopted the practice of adding amendments in a separate act, rather than creating a new Convention embodying the amendments.\textsuperscript{112} This action has the effect of maximizing the universe of Convention members; where original signatories to the Convention, for whatever reason, did not adopt the amendments, these signatories would still be a party to the unamended provisions of the Convention.\textsuperscript{113}

\textsuperscript{103} Id.
\textsuperscript{104} Id.
\textsuperscript{105} Id. at 370. The acronym derives from the French name of the organization, \textit{Association littéraire et artistique internationale}. \textit{Association Littéraire et Artistique Internationale, Compte-rendu du trente-sixième Congrès} (1928).
\textsuperscript{106} Ricketson, supra note 100, § 2.9, at 48-49.
\textsuperscript{107} Id. § 2.10, at 49-50.
\textsuperscript{108} Id. § 3.1, at 81. Further revisions were adapted in Berlin in 1908, Rome in 1928, Brussels in 1948, Stockholm in 1967, and the 1971 Paris Conference. Id. §§ 3.8-3.67, 87-125. An Additional Protocol was adopted in 1914 to address the problems of authors who were citizens of non-Berne states (particularly U.S. authors) gaining protection in Berne states (particularly Canada), while Berne authors were unable to gain reciprocal protection in the non-Berne states where the authors were citizens. Id. § 3.21, at 97-98. The Protocol allowed Berne countries to restrict protection for authors from such states. \textit{Id}.
\textsuperscript{109} \textit{Union internationale pour la protection des œuvres littéraires et artistiques, actes de la Conférence réunie à Paris du 15 avril au 4 mai 1896, at 217} (1897).
\textsuperscript{110} Id. at 220.
\textsuperscript{111} Id.
\textsuperscript{112} Ricketson, supra note 100, § 3.6, at 85-86.
\textsuperscript{113} Id. § 3.6, at 85; see Berne Convention, supra note 6, art. 32, 828 U.N.T.S. at 274-75, \textit{S. Treaty Doc. No. 99-27 at 23-24}. 
2. The Provisions of Berne

Intellectual property rights under the Berne Convention exist regardless of administrative formalities such as the registration of a work with a national office. Berne Convention signatories must protect literary and artistic works for the life of the author plus fifty years. Anonymous works, or pseudonymous works where there is doubt as to the identity of the author, are protected for fifty years from publication. If the identity of the author is subsequently revealed, the normal provisions then apply.

The Berne Convention has only two provisions for enforcement, both relating to seizure of infringing copies. Article 13(3) authorizes seizure of recordings of musical works made in

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114. Berne Convention, supra note 6, art. 5(2), 828 U.N.T.S. 290-33, S. Treaty Doc. No. 99-27 at 4. For example, the 1988 amendments to the U.S. Copyright Act bring the Act into conformance with Berne Convention by repealing the registration requirement. Berne Convention Implementation Act of 1988, Pub. L. 100-568, 102 Stat. 2855 (1988) (codified at scattered sections of 17 U.S.C.). "The provisions of the Berne Convention . . . shall be given effect under title 17, as amended by this Act, and any other relevant provision of Federal or State law . . . ." Id. § 3. The Act, however, still requires registration of works that originate in the United States as a prerequisite for a plaintiff to collect statutory damages or attorney's fees in an infringement action. 17 U.S.C. §§ 411-412 (1988 & Supp. IV 1992). "Except for actions for infringement of copyright in Berne Convention works whose country of origin is not the United States . . . no action for infringement of the copyright in any work shall be instituted until registration of the copyright claim has been made in accordance with this title." 17 U.S.C. § 411(a). In addition, no award of statutory damages or attorney's fees . . . shall be made for [an action alleging] . . . any infringement of copyright commenced after first publication of the work and before the effective date of its registration, unless such registration is made within three months after the first publication of the work.

17 U.S.C. § 412. A "Berne Convention" work is defined in the Act as one where one or more of the authors is a national of a Berne Convention signatory; the work was first published in a Berne Convention nation; or is an architectural work or pictorial, graphic or sculptural work incorporated in a building or structure located in a Berne Convention nation. 17 U.S.C. § 101.


117. Id.

one country, \(\text{119}\) under compulsory license, \(\text{120}\) and imported into a country where they are considered to infringe a copyright. \(\text{121}\) Article 16 authorizes a country to seize copies of works that are subject to seizure in any other Berne Convention country. \(\text{122}\) These measures do not compel a country to seize infringing copies. \(\text{123}\)

Cinematographic works are protected for fifty years from the time the author makes the work available to the public, or if that is not done, fifty years from the work's completion. \(\text{124}\) The Convention expressly leaves the term of protection for photographic works to the member states, but provides a floor of twenty-five years of protection. \(\text{125}\) Terms of protection specified by the Berne Convention are all minimum levels of protection. \(\text{126}\) Member states may grant longer terms of protection at their discretion. \(\text{127}\)

The Berne Convention has a history of compromise where the signing parties have differed on policies. \(\text{128}\) At its inception in 1886, the matter of protection for non-nationals was left to the member states, in order to preserve the Convention. \(\text{129}\) The con-


\(\text{120}\). See Latman, \(\text{supra}\) note 39, at 37 (defining compulsory license). Under a compulsory license, certain uses of copyrighted works may not be prohibited by the copyright holder. \(\text{Id.}\) The user, however, must comply with statutory formalities, and pay a fee, determined by statute, to the copyright holder. \(\text{Id.}\)


(1) Infringing copies of a work shall be liable to seizure in any country of the Union where the work enjoys legal protection.

(2) The provisions of the preceding paragraph shall also apply to reproductions coming from a country where the work is not protected, or has ceased to be protected.

(3) The seizure shall take place in accordance with the legislation of each country.

\(\text{123}\). \(\text{Id.}\)

\(\text{124}\). \(\text{Id.}\) art. 7(2), 828 U.N.T.S. at 236-37, S. Treaty Doc. No. 99-27 at 5.


\(\text{126}\). \(\text{Id.}\) art. 7(6), 828 U.N.T.S. at 236-37, S. Treaty Doc. No. 99-27 at 6.

\(\text{127}\). \(\text{Id.}\)

\(\text{128}\). See Saunders, \(\text{supra}\) note 97, at 167-85 (discussing history of conflict between universalists and pragmatists leading to creation of Berne Convention in 1886).

\(\text{129}\). \(\text{Id.}\) at 178-80. The United Kingdom strongly advocated national treatment.

\(\text{Id.}\)
cept of national treatment ultimately prevailed, whereby each nation afforded the same protection to the works of authors from member states as those of their own citizens.

The term "reciprocity" denotes an approach that prevailed prior to the Berne Convention. Reciprocity refers to an agreement between two states by which each of them grants the other's citizens certain privileges, on the condition that the exchange of privileges is mutual. One example of reciprocity is France's home taping law, which levies a royalty on blank tapes. The royalty is split 75%/25% between creators of works (authors, producers, and performers) and a cultural fund. Because the United States has no such law, France bars U.S. copyright owners from collecting royalties from this fund, even though their works form a significant portion of the total works taped by French citizens.

C. Enforcement of Berne Convention Provisions Through GATT and TRIPS

During the Uruguay Round of the General Agreement on Tariffs and Trade ("GATT"), the United States proposed measures to protect motion pictures, its second most valuable

130. Jones, supra note 21. National treatment is the policy whereby a nation's laws treat non-citizens in the same manner as its own citizens. Id.
131. Ricketson, supra note 100, § 5.54, at 195-196.
132. Id. § 1.27, at 22.
133. BLACK'S LAW DICTIONARY 1270 (6th ed. 1990); see Leich, supra note 96, at 65 (defining reciprocity).
136. Loi no. 85-660, art. 36, 26 D.S.L. at 360.
export,\textsuperscript{140} from wide-scale illegal duplication.\textsuperscript{141} The losses from such duplication each year have been estimated as high as US$17 billion.\textsuperscript{142} For the TRIPS document, the United States proposed the institution of border measures requiring signatory states to intercept infringing works at their borders,\textsuperscript{143} uniform standards and norms of intellectual property protection,\textsuperscript{144} assurances that such measures would not create a barrier to legitimate trade,\textsuperscript{145} the extension of international dispute-settlement measures to intellectual property disputes,\textsuperscript{146} and the encouragement of non-signatory governments to accede to GATT.\textsuperscript{147} The final TRIPS document incorporated the provisions of the Berne Convention as the standard of copyright protection, with the exception of those concerning moral rights.\textsuperscript{148}

Part III of the TRIPS Agreement provides for the enforcement of intellectual property rights.\textsuperscript{149} It addresses civil and administrative procedures and remedies,\textsuperscript{150} provisional measures,\textsuperscript{151} border measures,\textsuperscript{152} and criminal procedures.\textsuperscript{153} Part V

\begin{itemize}
\item \textsuperscript{140} \textit{2 The GATT Uruguay Round: A Negotiating History} (1986-1992) 2254 (Terence P. Stewart ed., 1993) [hereinafter \textit{GATT Uruguay Round History}].
\item \textsuperscript{141} \textit{Id.}
\item \textsuperscript{142} \textit{Future Copyright Protection Concerns Likely to Focus on Technology Advances, Patent, Trademark & Copyright Law Journal (BNA) (Oct. 27, 1994), available in Westlaw, BNA-PTD Database}. The figures are estimates from the International Intellectual Property Alliance. \textit{Id.}
\item \textsuperscript{143} \textit{GATT Uruguay Round History, supra note 140, at 2266}. The European Community, however, sought to include moral rights, as enumerated in Article 6 bis in the Berne Convention, in TRIPS. Berne Convention, \textit{supra} note 6, art. 6 bis; TRIPS, \textit{supra} note 19, 33 I.L.M. 1197. The final text of TRIPS included neither border measures nor moral rights requirements. TRIPS, \textit{supra} note 19, at 7, art. 9, 33 I.L.M. at 1201. Article 9 of the TRIPS agreement calls on signatories to follow Articles 1 through 21 of the Berne Convention, as well as the Appendix, but specifically excludes Article 6 bis. \textit{Id.}
\item \textsuperscript{144} \textit{Id.}
\item \textsuperscript{145} \textit{Id.}
\item \textsuperscript{146} \textit{Id.}
\item \textsuperscript{148} TRIPS, \textit{supra} note 19, art. 9, 33 I.L.M. at 1201.
\item \textsuperscript{149} \textit{Id.} arts. 41-61, 33 I.L.M. at 1215-20.
\item \textsuperscript{150} \textit{Id.} arts. 42-49, 33 I.L.M at 1214-16.
\item \textsuperscript{151} \textit{Id.} art. 50, 33 I.L.M. at 1216-17.
\item \textsuperscript{152} \textit{Id.} arts. 51-60, 33 I.L.M. at 1217-20.
\item \textsuperscript{153} \textit{Id.} art. 61, 33 I.L.M. at 1220.
\end{itemize}
of the TRIPS Agreement\textsuperscript{154} sets forth a resolution procedure for disputes under TRIPS that incorporates Articles XXII and XXIII of GATT,\textsuperscript{155} as elaborated under the Understanding on Rules and Procedures Governing the Settlement of Disputes.\textsuperscript{156}

Article XXII of GATT requires member nations to be receptive to communications from other members regarding GATT-related issues,\textsuperscript{157} and allows third-party consultations where the nations cannot resolve the matter between themselves.\textsuperscript{158} Sanctions may be imposed, up to and including withdrawal from GATT.\textsuperscript{159} The Uruguay Round created the World Trade Organization,\textsuperscript{160} which establishes a Dispute Settlement Body,\textsuperscript{161} charged with administering the rules and procedures set forth in the Understanding on Rules and Procedures Governing the Settlement of Disputes.\textsuperscript{162}

D. Unilateral Measures to Enforce Protection of Copyright

Producers of intellectual property in the United States have petitioned the U.S. government to obtain strong international protection for their works.\textsuperscript{163} As Hollywood films and U.S. music recordings are the United States’ second-largest export,\textsuperscript{164} the U.S. government has taken up their cause.\textsuperscript{165} U.S. holders of intellectual property have sought extraterritorial jurisdiction in

\begin{itemize}
\item \textsuperscript{154} \textit{Id.} arts. 63-64, 33 I.L.M. at 1221.
\item \textsuperscript{155} \textit{Id.} art. 64, 33 I.L.M. at 1221; see General Agreement on Tariffs and Trade, opened for signature Oct. 30, 1947, arts. XXII-XXIII, 61 Stat. A3, A64-65, 55 U.N.T.S. 187, 266-69 [hereinafter GATT].
\item \textsuperscript{156} Understanding on Rules and Procedures Governing the Settlement of Disputes, Uruguay Round Final Act, art. 3.1, GATT Doc. MTN/FA III.G.7.6, 33 I.L.M. 1226, 1227 (1994) [hereinafter Uruguay Rules and Procedures].
\item \textsuperscript{157} GATT, \textit{supra} note 155, art. XXII, 61 Stat. at A64, 55 U.N.T.S. at 266-67.
\item \textsuperscript{158} \textit{Id.}
\item \textsuperscript{159} GATT, \textit{supra} note 155, art. XXIII, 61 Stat. at A64-65, 55 U.N.T.S. at 266-69.
\item \textsuperscript{160} Agreement Establishing the World Trade Organization, Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations, GATT Doc. MTN/FA III.G.7.2, 33 I.L.M. 1144 (1994) [hereinafter WTO Agreement].
\item \textsuperscript{161} \textit{Id.} art. IV(3), 33 I.L.M. at 1145.
\item \textsuperscript{162} Uruguay Rules and Procedures, \textit{supra} note 156, § 2.1, 33 I.L.M. at 1226.
\item \textsuperscript{163} \textit{Cf.} China, Turkey, India, Brazil Faulted for Inaction of Intellectual Property, Patent, Trademark and Copyright Daily (BNA) (Feb. 15, 1995) available in Westlaw, BNA-PTD database (U.S. trade organization urges U.S. government to act against countries that fail to enforce intellectual property rights).
\item \textsuperscript{164} GATT URUGUAY ROUND HISTORY, \textit{supra} note 140, at 2254.
\item \textsuperscript{165} \textit{See} \textit{supra} note 143 (discussing U.S. advocacy of strong enforcement measures for TRIPS Document).
\end{itemize}
U.S. courts,\textsuperscript{166} and through the U.S. Trade Representative's utilization of "Special 301" procedures.\textsuperscript{167}

1. Seeking Extraterritorial Jurisdiction

The U.S. Constitution, as interpreted by the Supreme Court, requires that a defendant must establish minimum contacts with a state, and/or purposefully avail herself of the benefits of that state's laws, in order for a court of that state to exercise personal jurisdiction over her.\textsuperscript{168} Traditionally, in order to bring a case before a U.S. federal court, one of the parties had to be an U.S. citizen.\textsuperscript{169} More recently, however, a number of decisions have found U.S. federal courts competent to hear cases between resident aliens and non-citizen parties.\textsuperscript{170}

In the United States, copyright infringement cases are heard in the federal courts.\textsuperscript{171} U.S. courts have issued conflicting rulings on whether infringements that take place abroad may be litigated in the United States. The U.S. District Court for the Southern District of New York has found jurisdiction in several such cases.\textsuperscript{172} In contrast, the U.S. District Courts for the


\textsuperscript{169} Joseph W. Dellapenna, Suing Foreign Governments and Their Corporations 34 (1988).

\textsuperscript{170} Cf. Verlinden v. Central Bank of Nigeria, 461 U.S. 480 (1983) (non-U.S. plaintiff may sue sovereign state in Federal court over actions that took place in U.S.); In re Estate of Marcos Human Rights Litigation, 978 F.2d 493 (9th Cir. 1992) (district court default judgment upheld against daughter of former Philippine president Ferdinand Marcos for wrongful death of Philippine citizen).


Northern and Eastern Districts of California have not. The Southern District of Florida has reached results similar to the Southern District of New York following the California district courts’ logic.

The U.S. District Court for the Southern District of New York (“Southern District”) has delivered divergent rulings on extraterritorial jurisdiction. It has held that both agency and copyright as a transitory action may form the basis for such jurisdiction. The California district courts’ expansive view of subject matter jurisdiction contrasts with its strict interpretation of the Copyright Act regarding jurisdiction.

a. The Expansive View of Jurisdiction

In London Film v. Intercontinental, jurisdiction over an extraterritorial infringement was based on Professor Melville B. Nimmer’s view of copyright infringement as a transitory cause of action. The London Film court also articulated a policy con-

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180. London Film, 580 F. Supp. at 47. See generally NIMMER, supra note 29.
181. London Film, 580 F. Supp. at 48-49, n.4; see NIMMER, supra note 29, § 17.03, at 17-23 to 17-25. Unlike trademark and patent protection, copyright is considered to be created simultaneously with the work, and no “administrative formalities” such as registration are required to perfect the right. Id.; see Vanity Fair Mills v. T. Eaton Co., 234 F.2d 633 (2d Cir.), cert. denied, 352 U.S. 871 (1956).

The Berne Convention, for example, forbids its signatories from requiring registration as a prerequisite for protection. Berne Convention, supra note 6, art 5(2), 828 U.N.T.S. at 232-33, S. TREATY DOC. NO. 99-27 at 4. Therefore, Nimmer contends, a U.S. court would not need to “pass upon the validity of acts of [non-U.S.] government officials” in hearing a claim of extraterritorial infringement. 3 NIMMER, supra note 29,
§ 17.03, at 17-23 to 17-25. Nimmer is cited by the U.S. District Court for the Northern District of California for the proposition that a plaintiff in an infringement action may recover extraterritorial profits earned as a result of infringing acts within the United States. Fantasy, Inc. v. Fogerty, 664 F. Supp. 1345 (N.D. Cal 1987), aff'd, 984 F.2d 1524 (9th Cir. 1993), rev'd and remanded, 114 S. Ct. 1023, 62 U.S.L.W. 4153 (1994). This would eliminate choice-of-laws controversies for a court hearing such a claim, at least to the extent that the copyright laws of the U.S. court coincide with those of the country where the alleged infringement occurred. 3 NIMMER, supra note 29, § 17.03, at 17-23 to 17-25. As the Berne Convention seeks to provide uniformity of protection among its signatories, the court hearing a case involving an infringement abroad would, whether using its own law or the law of the country where the infringement occurred, apply essentially the same doctrine and policy, as many of the statutes in both countries would be nearly identical. Id. But see 3 NIMMER, supra note 29, § 17.04[D][1], at 17-28 (discussion of differences in U.S. and U.K. copyright law which left works produced before Sept. 25, 1957 in the public domain under U.K. copyright law, even though still protected in United States).

Under U.S. case law, a copyright holder acquires a "constructive trust" in an infringing work produced in the U.S. 3 NIMMER, supra note 29, § 14.05, at 14-80 (citing Fantasy v. Fogerty, 664 F. Supp. at 1345); Sheldon v. MGM, 106 F.2d 45 (2d Cir. 1939); Stigwood v. O'Reilly, 530 F.2d 1096 (2d Cir. 1976). The holder is entitled to any profits generated by such a work, anywhere in the world. Id. Such a trust is limited to cases where there is infringing conduct in the United States. Id.

One note writer has differed with Nimmer's "administrative formality" analysis of copyright jurisdiction. David R. Toraya, Note, Federal Jurisdiction Over Foreign Copyright Infringement Actions: An Unsolicited Reply to Professor Nimmer, 70 CORNELL L. REV. 1165, 1168 (1985). The note argued against the bright-line distinction of such formalities as a basis for federal jurisdiction. Id. As national treatment requires a Berne Convention member nation to offer authors of other member nations the same protections as it does its own authors, the applicable law must necessarily be that of the nation in which the infringement occurred. Id. at 1170-71. Intellectual property rights are "peculiarly expressive of a nation's political, socio-economic and cultural interests. The property rights can be infringed and thus exist only within the boundaries of the sovereign state whose law created them." Id. at 1183.

Under this approach, the court best suited to evaluate these property rights would likely be that where the infringement occurred under the doctrine of forum non conveniens. Id. at 1190. Forum non conveniens refers to the "discretionary power" of a court to decline jurisdiction where justice and the convenience of the parties would be better served by trying the case in another forum. Laurel E. Miller, Comment, Forum Non Conveniens and State Control of Foreign Plaintiff Access to U.S. Courts in International Tort Actions, 58 U. CHI. L. REV. 1369, 1371 (1991). In cases of copyright infringement in another country, it is more likely that witnesses and evidence necessary to conduct a trial would be found in the place where the infringing act occurs, and thus, under a forum non conveniens analysis, more likely that jurisdiction would not be found in the plaintiff's forum. Toraya, supra, at 1190. Thus, forum non conveniens is recommended as a better approach to extraterritorial copyright jurisdiction. Id.

The author also proposes a four-factor "interest" analysis, which considered 1) the court's ability to make an informed disposition of the non-U.S. actor, 2) the nature of the issues presented, 3) the suitability of U.S. enforcement to the judgment, and 4) the convenience of the litigants and the forum. Id. While the "interest" analysis is a suggested test, yet to be adopted by a court, this analysis has been cited for the general proposition that extraterritorial copyright infringement cases should not be heard in U.S. courts. ITSI, 785 F. Supp. at 854.
cern favoring jurisdiction.\textsuperscript{182} Should U.S. courts hesitate to hear complaints rooted in the laws of another nation against its citizens, the court stated in dictum, other nations would likewise hesitate to act where their citizens have run afoul of U.S. laws.\textsuperscript{183}

The Southern District found jurisdiction, on the other hand, in the agency relationship among a group of non-U.S. affiliates of CBS’ record division with the New York parent in an action for copyright infringements committed by the affiliates.\textsuperscript{184} In \textit{Larball v. CBS}, the court rejected the argument that these subsidiaries were “mere departments” of CBS,\textsuperscript{185} but found jurisdiction on an agency theory.\textsuperscript{186} In \textit{Palmieri v. Estefan},\textsuperscript{187} a case with similar facts, the Southern District also found jurisdiction.\textsuperscript{188} In contrast, the plaintiff in \textit{Intersong v. CBS}, another copyright infringement case brought against CBS Records, failed to establish an agency relationship between CBS and its non-U.S. affiliates of

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  \item \textsuperscript{182} \textit{London Film}, 580 F. Supp. at 49.
  \item \textsuperscript{183} \textit{Id.}

  The Court has an obvious interest in securing compliance with this nation’s laws by citizens of foreign nations who have dealings within this jurisdiction. A concern with the conduct of American citizens in foreign countries is merely the reciprocal of that interest. An unwillingness by this Court to hear a complaint against its own citizens with regard to a violation of foreign law will engender, it would seem, a similar unwillingness on the part of a foreign jurisdiction when the question arises concerning a violation of our laws by one of its citizens who has since left our jurisdiction.

  \textit{Id.}

  \textsuperscript{184} \textit{Larball}, 664 F. Supp. at 704.

  The evidence supported a finding under that test that the subsidiaries were sufficiently independent of CBS in their operations so as not to support jurisdiction over them as “mere departments.” \textit{Id.} at 708.


  \textsuperscript{188} 793 F. Supp. at 1188.
CBS. The Southern District applied the same agency test to the jurisdiction question, but distinguished Intersong from Larball on the ground that the CBS affiliates did not rely on the parent for their major profits. Rather than rely on agency, the Intersong court held the "mere department" test controlled.

b. California District Courts: No Extraterritorial Jurisdiction

The U.S. District Courts for the Northern and Eastern Districts of California have held that jurisdiction could not be exercised over an infringer where the alleged infringing act occurred outside the United States. In contrast to the Southern District of New York, the district courts of California have consistently declined to exercise extraterritorial jurisdiction. In one such case, the Eastern District of California did not exercise jurisdiction over a Mexican corporation charged with infringing a copyright held by an Illinois corporation for the broadcast of horse races. A broker who marketed the races for the California racing authority retransmitted the races to a Mexican exhibitor. The court held extraterritorial copyright infringements not actionable in U.S. federal courts. The court further denied the plaintiff leave to amend its complaint to state a cause of action under Mexican copyright law.

Similarly, the Northern District of California, in Zenger-Miller v. Training Team GmbH, held copyright infringement outside the United States not actionable in district courts unless the act is part of, or a consequence of, an act of infringement occurring within the United States. The plaintiff, a California developer

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190. 1990 WL 131191 at *4.
191. Id.
196. Id. at 857.
197. Id. at 862 (quoting Peter Starr Productions Inc. v. Twin Continental Films, Inc., 783 F.2d 1440, 1442 (9th Cir. 1986)).
198. Id. at 866.
200. Id.
of management-training programs with an office in Germany, negotiated an agreement with a German distributor that called for disputes to be litigated in California. The court adopted an expansive view of subject matter jurisdiction based on the effect of extraterritorial activity on U.S. commerce, but did not find jurisdiction proper under the facts presented. The court conceded, however, that other fact patterns might support jurisdiction.

It should be noted that at least one U.S. court has found extraterritorial jurisdiction under the California district courts’ approach. In *P&D International v. Halsey Publishing Co.*, the Southern District of Florida relied on federal law in denying a motion for conditional dismissal for forum non conveniens in a copyright action against a United Kingdom corporation. The plaintiff, incorporated in the Cayman Islands, sued Halsey, a Florida corporation, and Cunard N.A.C., the British operator of cruise ships, over Halsey’s infringement of a travel film produced by P&D and shown on Cunard’s ships. While denying the dismissal, the court noted in dictum that U.S. copyright law

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201. *Id.* at 1065.
202. *Id.*
203. 757 F. Supp. at 1069 (citing Timberlane Lumber Co. v. Bank of America National Trust & Savings Assn., 549 F.2d 597 (9th Cir. 1976); Wells Fargo & Co. v. Wells Fargo Express Co., 556 F.2d 406 (9th Cir. 1977); Star-Kist Foods v. P.J. Rhodes & Co. 769 F.2d 1393 (9th Cir. 1985)).
204. 757 F. Supp. at 1070. The court noted that the subject matter of the case would involve the production of German documents, the testimony of the German nationals, and testimony of plaintiff’s employees in Germany. *Id.* at 1070. The defendants consented, by the terms of the contract, to personal jurisdiction. *Id.* at 1068-69. Under U.S. case law, however, subject matter jurisdiction cannot be consented to by parties. *Id.* at 1069. Without a showing that the defendant intended to affect U.S. commerce, subject matter jurisdiction could not be found. *Id.* at 1071.
205. *Id.* at 1070-71. “Therefore, even though the Lanham Act can theoretically extend to a foreign defendant’s activities outside the United States, it does not do so in this instance.” 757 F. Supp. at 1071.
207. See supra note 181 (discussing forum non conveniens).
208. *P&D*, 672 F. Supp. at 1431. Cunard showed P&D’s film, promoting the tourist attractions of the Island of St. Thomas, B.V.I., over two hundred times from 1981 to 1983, and then hired Halsey to produce a new film about St. Thomas. *Id.* The complaint alleged (and Cunard’s vice-president affirmed in an affidavit) that Cunard provided Halsey with a copy of P&D’s film while Halsey was producing its film. *Id.* The complaint further alleged that Cunard failed to return all copies of the film to P&D, and continued to show the film after the agreement expired. *Id.* Cunard raised as an affirmative defense that they, not P&D, owned the rights to the film because it was produced as a “work for hire.” *Id.* P&D disputed that claim. *Id.*
had no extraterritorial effect, and that extraterritorial infringers could be prosecuted only for contributing to the act within the United States. The court found jurisdiction through an admission by the defendant that the film was copied in Florida. While noting that the United Kingdom could serve as an appropriate forum for this action, the court also held that the defendant failed to raise its forum non conveniens argument in a timely manner. In addition, with the witnesses located primarily in Florida and the Cayman Islands, trial in Florida would be more expeditious.

2. Special 301: Using Trade Policy to Encourage Enforcement of Copyright Laws

The "Special 301" provisions of the 1988 Trade Act grew out of the problems U.S. companies encountered in securing intellectual property protection in nations where they had substantial investments. In the early 1970's, as technological advances had facilitated the ability of others to copy products, many of the host nations had become more interested in developing their own industries, and so reduced the level of protection for intellectual property, and imposed other restrictions. By the end of the decade, in response to these developments, the U.S. Trade Representative ("USTR") had taken an active role in

209. Id. at 1422.

As a general rule, U.S. copyright law has no extraterritorial effect and cannot be invoked to secure relief for acts of infringement occurring outside the United States. However, to the extent that part of an 'act' of infringement occurs within this country, although such act be completed in a foreign jurisdiction, those who contributed to the act within the United States may be liable under U.S. copyright law.

Id. (citations omitted).

210. Id.

211. See Miller, supra note 181, at 1871-72 (defining forum non conveniens).

212. P&D, 672 F. Supp. at 1434.

213. Id.


216. Id.

217. Id.

218. 19 U.S.C. §§ 2241-2242. Section 2242 calls upon the Trade Representative to report egregious instances of a country's disregard for intellectual property protection to Congress, and empowers the Trade Representative to enter into negotiations with the country to seek greater protection, and to revoke favored-nation status from the country should these negotiations fail. Id.
negotiating agreements and utilizing trade measures.\textsuperscript{219}

The "Special 301" provisions require the USTR to report practices of other nations that adversely affect U.S. exports and overseas investments, including intellectual property, to the President and certain Congressional committees,\textsuperscript{220} and to identify the most egregious offenders as "priority" countries.\textsuperscript{221} The USTR is then authorized to reach agreements with these priority countries,\textsuperscript{222} and to impose certain trade restrictions should negotiations fail.\textsuperscript{223}

Sanctions were announced by the USTR on February 4, 1995, when the USTR imposed US$1 billion in punitive tariffs against the People's Republic of China, to take effect February 26, in retaliation for China's failure to control piracy of videocassettes, recorded music, and computer software.\textsuperscript{224} The USTR alleged that China failed to enforce its 1991 copyright law,\textsuperscript{225} and continued to allow widespread exporting of illegal CDs and videocassettes.\textsuperscript{226} China responded immediately by announcing sanctions on U.S. products, including cigarettes, alcoholic beverages, and compact discs.\textsuperscript{227} The two countries resumed trade negotiations shortly after, and came to an agreement before the sanctions would have gone into effect.\textsuperscript{228}

\begin{itemize}
\item 219. Gadbaw, \textit{supra} note 215, at 228.
\item 220. 19 U.S.C. § 2241(b).
\item 221. 19 U.S.C. § 2242(c)(1).
\item 222. 19 U.S.C. § 2411(c)(1)(D). Such agreements may call for the priority country to "eliminate, or phase out, the act, policy or practice that is the subject of the action," or "eliminate any burden or restriction on United States commerce resulting from such act, policy, or practice." 19 U.S.C. § 2411(c)(1)(D)(i-ii). They may also "provide the United States with compensatory trade benefits." 19 U.S.C. § 2411(c)(1)(D)(iii).
\item 223. 19 U.S.C. § 2416(b).
\item 225. Piracy, \textit{supra} note 224, at 1.
\item 226. Sanctions, \textit{supra} note 224, at 1.
\item 227. Id.
\item 228. \textit{Trade War Averted; Chinese Officials, Individuals Welcome Sino-U.S. Copyright Accord}, BBC Summary of World Broadcasts, Feb. 28, 1995, \textit{available in LEXIS}, News Library, CURNWS File; Mark Evans & Gord McLaughlin, \textit{China Agrees to Stop Software, CD}
II. A Protocols to the Berne Convention: Strong Versus Weak International Protection of Electronic Copyright

Industrialized nations and developing nations differ on the need for strong international protection of intellectual property. In arguing for strong protection, the industrialized nations rely on the policies behind copyright. The developing nations, in contrast, view strong protection of intellectual property as a tool of economic dominance, and as contrary to the common heritage of the world's peoples. Proposals for a protocol to the Berne Convention call for signatories to strengthen enforcement of copyright.

A. The Case for Strong Protection

Copyright protection balances the rights of authors to exploit their works with the interests of the work's audience. Whether viewed as an incentive to creation, a natural right,
or a means of ensuring fairness, strong copyright protection enables authors to be compensated for their efforts in producing literary and artistic works. Electronically-transmitted works, because of their special vulnerability to copying, cannot be protected properly without strong enforcement measures.

1. Economic Benefits of Intellectual Property Protection

At least one commentator has argued that treating literary and artistic expression as property is a manner of recognizing the value of the expression. To illustrate the value of intellectual property rights, professors have analogized these rights to personal property rights. The right of persons to control their personal property and to have it protected from theft is undisputed; intellectual property deserves similar protection.

Some economists have correlated the economic development of many Western European countries with the development of property rights, including intellectual property. For example, in a cost-benefit study of intellectual property protection, two economists found a close correlation between a nation's level of economic modernization and high levels of patent protection. The study found the costs normally attributed to protection to be overstated, and the benefits of technological and information flow, which strong protection of intellectual property encourages, to outweigh these costs.

Another commentator has argued that by offering strong protection, nations may keep citizens who create intellectual property from going to other nations to seek protection.

236. See supra notes 47-48 and accompanying text (describing commercial morality/fairness theory of copyright).
237. See supra notes 77-85 and accompanying text (describing ease with which works in digital form may be copied).
238. Hughes, supra note 46, at 294.
239. HANSEN, supra note 14, § 3 [2], at 3-4.
240. Id.
242. Id. at 79-81.
243. Id. at 90.
244. Id. at 83-86, 101.
245. J. Davidson Frame, National Commitment to Intellectual Property Protection: An Empirical Investigation, 2 J. L. & TECH. 209, 217 (1987). "Local entrepreneurs are not likely to create and exploit new technologies in an environment where intellectual property is viewed as a commodity that is an easy target for piracy." Id.
ure to offer strong protection, conversely, stifles the development of a technological infrastructure, including the educated work force needed to produce technological advances. This is true of copyright protection as well as protection of industrial property.

2. The Special Case of Electronically-Transmitted Works

Strong protection for digital works is necessary, according to one practitioner, because the creation and copying of works in digital form offers wide dissemination for these works. The benefits of such dissemination, however, will be diminished if talented authors and artists refrain from committing such works to digital form, for fear their works will be taken. If authors and artists cannot be assured that works created using older technologies will not be converted to digital form and introduced into cyberspace, they may choose not to create works at all.

B. The Case Against Strong Protection

Many citizens of developing countries view strong intellectual property protection as a benefit to outside investors that is paid for by their own consumers. Intellectual property is the

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246. BENKO, supra note 7, at 29.
247. Id. at 33.
249. Id.
251. See Rapp & Rozek, supra note 241, at 75, 84-85 (describing role of intellectual property protection in technology transfer).
common heritage of humankind, and thus beyond ownership.\textsuperscript{253} In the area of patents, the concept of ownership in intellectual property is secondary to economic considerations,\textsuperscript{254} such as, in the case of pharmaceutical patents, avoiding price increases in health care.\textsuperscript{255} This pragmatic approach undermines arguments for strong protection that rely on natural law and other absolute rights to protection.\textsuperscript{256}

1. Intellectual Property as a Tool of Economic Dominance

Proponents of weak protection have argued that the monopolistic nature of intellectual property rights is used by its owners to exact unreasonable payments for its use.\textsuperscript{257} Developing nations are hard-pressed to pay high prices for intellectual property.\textsuperscript{258} Unwarranted restrictions on the use of intellectual property hinder these nations' efforts to modernize, and so perpetuate the gap between developing and industrialized nations.\textsuperscript{259}

The prospect of developing nations fostering the creation of intellectual property by their own citizens, moreover, may not justify the initial costs of protection.\textsuperscript{260} Using a cost-benefit analysis, some nations may find that where they are dependent on technology from other nations, the costs of protecting intellectual property exceed the benefits.\textsuperscript{261} Even if the benefits marginally outweighed the costs, the net welfare impact of intellectual property protections on the economy of a nation may be negative if such protections initially resulted in a negative cost/

\textsuperscript{253} Frame, \textit{supra} note 245, at 211; Benko, \textit{supra} note 7, at 28.
\textsuperscript{255} Braga, \textit{supra} note 16, at 253.
\textsuperscript{256} Id.
\textsuperscript{257} Id.
\textsuperscript{258} Id.
\textsuperscript{259} Id.
\textsuperscript{260} Id. at 251-64.
\textsuperscript{261} Id. at 256. The costs to a nation that strengthens its protection of intellectual property include the payment of royalties for intellectual property obtained from other nations, the loss of firms that profited from piracy activities, initially increased research and development costs, and the reduction of consumer surplus by increased payments for intellectual property. \textit{Id.} The benefits include savings in research and development costs over time as base knowledge accrues, lower-cost technology transfers that would be impossible without strong intellectual property protection, and new investment fostered by strong protection. \textit{Id.}
2. The Common Heritage of Humankind

According to proponents of this theory, intellectual property rightly belongs to all people, as the “common heritage of mankind,” and should be freely disseminated. All nations share an interest in the development of the Third World nations, and should provide them with technological information at low cost, because developed nations enjoy both the short-term monopoly conferred by the protection of intellectual property and the long-term benefit of the continuous supply of new knowledge. Developing nations pay the price of protection, but share little of the benefits. In order to develop economically, these nations require cost-effective access to intellectual property, and this precludes strong protection of intellectual property.

C. The Proposed Berne Protocol

In 1991, WIPO assembled a Committee of Experts to consider the merits of devising a protocol to the Berne Convention that would clarify and develop standards for a number of categories of intellectual property, such as computer programs and databases. In addition, the Committee examined the possible remedies to a resurgence in reciprocity at the expense of the principle of national treatment. The Committee has held several meetings to discuss these issues, and is scheduled to meet again in September 1995.

The Committee examined six types of measures: provisional or conservatory measures, civil remedies, criminal

262. Id.
263. Id.
264. BENKO, supra note 7, at 28.
265. Id.
266. Id.
267. Id. at 29.
268. First Session Memorandum, supra note 22, at 30, ¶ 1.
269. Id. at 30-31, ¶ 2.
270. Legislation: National Treatment, supra note 135; see supra notes 133-38 (discussion of France’s home taping law).
271. See supra notes 22, 24 (documenting meetings of Committee of Experts).
sanctions, measures against abuses involving copy-protection devices, "border" measures, and general procedural safeguards. In addition, the Committee offered a broad definition of infringement. The violation of authorization rights, remuneration rights, or moral rights would constitute an infringement.

1. Provisional and Criminal Measures

In its Third Session in June 1993, the Committee of Experts discussed proposals that all signatories to a protocol be obliged to provide temporary injunctions against infringers and to seize infringing copies of works protected under the Berne Convention. At the Third Session, the Committee also sought to ensure fair and expeditious adjudication of infringement claims. Penalties were discussed for the use of devices intended to circumvent the encryption of broadcasts or other forms of protecting works from unauthorized copying.

274. Id. at 94, ¶ 70-71. Civil remedies provide for compensation to victims of infringements, disposal of infringing copies and implements used for infringing activities, and injunctions to prevent infringements. Id.

275. Id. at 94-95, ¶ 72-73. The proposed criminal measures are directed at infringement businesses that would not be deterred by civil penalties. Id.

276. Id. at 95, ¶ 74-75. This provision would extend criminal sanctions to users of devices designed to defeat copy-protection systems.

277. Id. at 95-96, ¶ 77-78. Border measures are aimed at preventing the entry of infringing copies of a work into a country. Id. Preventing such entry is considered more effective than attempting to retrieve copies after they have been distributed. Id.

278. Id. at 96-97, ¶ 78-79.

279. Id. at 93, ¶ 67. "It is proposed the protocol define 'infringement' as follows: 'Infringement' is a violation of any right protected under the protocol, whether the right is a moral right, an exclusive right of authorization or a right to remuneration.'" Id. (emphasis added).

280. Id.

281. Id. at 93-97, ¶ 67-79.

282. Id. at 96-97, ¶ 79. "It is proposed that the protocol provide that .. . procedures for the enforcement of copyright be fair, equitable, transparent, expeditious, not unnecessarily complicated, costly or burdensome, and do not impose unreasonable time limits." Id. at 96. The provision also calls for legal representation of all parties, the testimony of expert witnesses, protection of confidential information provided by a party to a dispute, and the opportunity for review of any initial decision. Id. at 96-97.

283. Id. at 95, ¶ 75(a).

It is proposed that any country party to the protocol be obliged .. . to provide [sanctions] in case of manufacture or importation for sale or rental, or the distribution by sale or rental, of (i) any device specifically or predominantly designed or adapted to circumvent any device intended to prevent or restrict the making of copies of works or to impair the quality of copies made (the
In light of the TRIPS Agreement, the Committee considered the issue anew at the Fourth Session. One delegation suggested that signatories grant copyright owners a civil remedy against manufacturers of devices designed to circumvent copy-protection measures. Other observers at the session favored even stronger measures criminalizing the possession of circumventing devices.

Provisional features considered by the Committee of Experts call for countries adopting the Protocol to provide for preliminary injunctions, search, seizure, and impoundment of copies, packaging materials, reproduction machinery, and business records that are reasonably suspected to have been used in infringing activities. These measures would be initiated ex parte by a copyright owner where a delay could be shown to cause irreparable harm to the author or copyright owner. A prosecuting party would need to provide a security or other assurance, and would be revoked upon failure of the prosecuting party to initiate a legal proceeding within a reasonable time.

The Committee also considered requiring that signatories to a protocol provide for authors to collect legal fees as part of the award of damages in a civil infringement case, as well as for the destruction or forfeiture of infringing copies, packaging, and reproduction machinery where such items could be used to commit further acts of infringement. Criminal sanctions were proposed to cope with infringement organizations that would only re-open in a new location after being shut down under civil remedies. The Committee also considered criminal sanctions for willful infringers who seek to profit from their infringing ac-

latter device hereinafter referred to as 'copy-protection or copy management device'); [or] (ii) any device that is capable of enabling or assisting the reception of an encrypted program, broadcast or otherwise communicated to the public, by those who are not entitled to receive the program . . . .

Id.

284. Fourth Session Memorandum, supra note 24, at 21-23, ¶¶ 87-96.
285. Id. at 21, ¶ 89.
286. Id. at 22, ¶ 94.
287. Third Session Memorandum, supra note 24, at 93-94, ¶ 69(a-b).
288. Id. at 94, ¶ 69(d).
289. Id. at 94, ¶ 69(c), (e).
290. Id. ¶ 71(a).
291. Id. ¶ 71(b) and (c).
292. Id. ¶ 72.
tivities.\textsuperscript{293} In addition to fines and imprisonment for willful or grossly negligent profit-seeking infringers,\textsuperscript{294} the proposal would call for increased penalties for repeat offenders.\textsuperscript{295}

At the Third Session, the Committee tabled discussion on enforcement measures in anticipation of the final GATT/TRIPS text.\textsuperscript{296} The Committee refined the enforcement issue, at the Fourth Session, to focus on links of a protocol's enforcement measures to existing enforcement measures.\textsuperscript{297} It also left open the possibility of adopting new norms on rights management systems as part of an extended mandate concerning digital technology.\textsuperscript{298}

2. Copyright Protection for Computer Programs

In its First Session, the Committee proposed that a Protocol require signatory nations to protect computer programs as literary works.\textsuperscript{299} The Committee also proposed that signatories prohibit, through national legislation, the copying of computer programs except for archival purposes and instances where copying was indispensable for the use of the program.\textsuperscript{300} A lawful owner of a copy of a program, however, would be allowed to decompile\textsuperscript{301} the program where necessary, and only to the extent necessary, to render the program compatible with other programs the owner may wish to use.\textsuperscript{302}

At the Second Session, the Committee considered a proposal that a protocol include language defining the storage of a work in a computer system as a reproduction.\textsuperscript{303} As Article 9(1)

\begin{itemize}
  \item 293. \textit{Id.}
  \item 294. \textit{Id.} at 95, ¶ 73(a).
  \item 295. \textit{Id.} ¶ 73(b).
  \item 296. \textit{Third Session Report}, supra note 24, at 196, ¶ 114.
  \item 297. \textit{Fourth Session Report}, supra note 24, at 23, ¶ 96.
  \item 298. \textit{Id.}
  \item 299. \textit{First Session Memorandum}, supra note 22, at 33-34, ¶ 30.
  \item 300. \textit{Id.} at 35, ¶ 38.
  \item 301. \textit{Vault Corp. v. Quaid Software Ltd.}, 655 F. Supp. 750, 755 (E.D. La. 1987). Decompiling is the printing of a program in a language "more readily understood by human beings." \textit{Id.} This language is also known as "source code." 1 \textit{Nimmer}, supra note 29, § 2.04[c], at 2-52.1.
  \item 302. \textit{First Session Memorandum}, supra note 24, at 35-36. The Committee proposed specifically to prohibit decompiling for the purpose of "making a program substantially similar in its expression to the original program, or for any other act of infringing copyright." \textit{Id.} at 36.
  \item 303. \textit{Second Session Memorandum}, supra note 24, at 68, ¶ 75.
\end{itemize}
of the Berne Convention already protects works in any form, several delegations to the Session offered the view that such a provision was unnecessary. There was a consensus, however, that the language was acceptable as an interpretation of Article 9(1).

The protection of computer programs was considered further in the Fourth Session. Three delegations to that Session set forth a proposal that computer programs be protected as literary works under Article 2 of the Berne Convention. While some non-governmental observers opined that the existing Berne Convention and TRIPS provisions were sufficient, and others questioned whether computer programs were in fact literary works, the essence of this proposal was accepted by the majority of the delegations. The Committee also considered whether fifty years, the term of protection computer programs would receive as literary works, was an excessive period for protection of computer programs, as such protection would long outlast the useful life of most programs.

3. Border and Enforcement Measures

During the Third Session, the Committee considered bor-
der provisions that offered a preventive measure against copy-
right piracy. The measures would require signatories to
honor a copyright holder’s request to customs officials of a coun-
try to refuse to allow copies of her works into that country, upon
a showing that the works would be infringed in that country.
The author would be required to post a security to protect the
intended recipient against capricious actions.

At the Fourth Session, the Committee discussed measures
aimed at devices designed primarily to defeat technical security
measures in the field of copyright. The delegations and non-
governmental organizations reacted positively to the inclusion of
such provisions in a protocol. While questions remained, the
Committee concluded that the illicit nature of security-defeating
devices should be recognized in a protocol. The Committee
left open the possibility that such recognition might take the
form of an aspirational statement, with implementation left to
the signatory states.

III. THE INTERNATIONAL COMMUNITY SHOULD
ADOPT STRONG ENFORCEMENT MEASURES IN A
BERNE PROTOCOL

For authors’ rights to be protected, they must be protected
globally. To accomplish this, international standards of enforce-
ment are necessary. The increased mobility of literary and artist-
ic works may easily be used to defeat copyright based on terri-
torial protections. Strong international enforcement of copy-
right also fosters the adoption of a global standard of protection.
Finally, strong enforcement provides the incentive for authors
and artists in developing countries to produce more works.

315. Third Session Memorandum, supra note 24, at 23, ¶ 96.
314. Id.
313. Id.
317. Id. at 23, ¶ 96.
318. Id.
319. Id. “[W]hile recourse to either criminal or civil measures had been advo-
cated, the possibility of simply stating that decoding itself was an illicit act, and leaving it
up to each country to decide how the measure should be implemented could be an
alternative.” Id.
320. See supra notes 67-85 and accompanying text (discussing transmission of elec-
tronic works).
A. Strong Enforcement Must Ensure National Treatment

Strong international protection of copyright removes the incentive of states to employ unilateral measures to ensure protection of works produced by their nationals. The U.S. trade sanctions against China were proposed because there was no other effective remedy available to the United States. Specifically, there were no international mechanisms in place to compel China to enforce its copyright laws.

The criticisms leveled at the United States for its use of the Special 301 procedures focuses not on the ends, but the means. The protection of intellectual property is supported by the majority of nations, although many express displeasure with the unilateral nature of "Special 301" actions. If successful, U.S. judicial extension of extraterritorial jurisdiction would likely elicit a similar reaction.

This reliance on unilateral measures is the danger of reciprocity. Uniform standards are difficult to attain when nations pursue bilateral agreements, each with its own terms. The threat of trade sanctions, moreover, is always accompanied by risk. The United States-China trade impasse may have been triggered by copyright negotiations, but its resolution involved political issues that are far afield from intellectual property.

Where the protection of intellectual property is just another bargaining chip in trade talks, it will be bargained. Given the

321. See supra notes 224-28 (discussing proposed U.S. trade sanctions against People's Republic of China).
322. See supra note 21 (discussing lack of enforcement mechanisms in Berne Convention).
324. See supra notes 214-24 and accompanying text (discussing "Special 301" actions).
325. See supra notes 132-38 and accompanying text (discussing reciprocity).
broad endorsement of the international community, however, protection will be taken seriously by all nations, and those that fail to hold up their end will do so at a cost. Strong enforcement provisions in a Berne Protocol, which could be carried out under the TRIPS provisions, would go far in addressing the global dimensions of copyright piracy and the importance of protecting works in cyberspace. Whether the TRIPS mechanism is used to enforce these measures or not, strong enforcement provisions should be part of the Protocol, as a standard of protection for the international community.

B. Strong Enforcement is a Net Benefit to Developing Nations

Developing countries are not major producers of intellectual property, and thus have little incentive to protect it.\textsuperscript{327} The economic dominance arguments raised by opponents of strong protection\textsuperscript{328} have a certain resonance in the area of industrial property and trade design, but are considerably weaker when applied to literary and artistic works, as such works are less reliant on technological expertise for their exploitation.\textsuperscript{329} Even though developing countries may not match Hollywood’s filmmaking prowess, for example, many might well be capable of supporting profitable film industries, if only their citizens who create cinematic works had an incentive to stay.\textsuperscript{330} With strong protection, producers of these and other artistic works can flourish in many nations, rather than being drawn away from those with weak protection.\textsuperscript{331}

In a similar fashion, strong enforcement of copyright in cyberspace will encourage creators of works in all nations to make their efforts available on-line. Works in cyberspace may go anywhere, but just as easily may come from anywhere. The technology needed to copy such works is the same technology

\begin{itemize}
  \item[327.] Leaffer, \textit{supra} note 15, at 275.
  \item[328.] See \textit{supra} notes 257-59 and accompanying text (arguing protection of intellectual property causes economic hardships to developing nations).
  \item[329.] See \textit{supra} notes 6-9 and accompanying text (distinguishing copyrights from patents).
  \item[330.] See Frame, \textit{supra} note 245, at 211 (noting that creators of works may leave countries with weak intellectual property protection).
  \item[331.] See \textit{supra} note 245 and accompanying text (describing flight of intellectual property to nations with strong protection).
\end{itemize}
needed to create them.\footnote{332} The two-way nature of cyberspace empowers citizens of developing nations to become senders as well as receivers of intellectual property.

Economic analysis of the protection of intellectual property has drawn no conclusions.\footnote{333} If any tendency can be discerned, it appears to be in favor of strong protection on the part of developing nations.\footnote{334} The costs to developing nations for strong protection, although they may be high, are short-term, while the benefits are long-term.\footnote{335} Strong protection may thus be considered an investment for developing countries, with expenditures in the present to secure payoffs in the future.

C. The Committee of Experts' Proposals for a Berne Protocol Are an Important Initiative in International Protection of Intellectual Property

On balance, the proposals of the Committee of Experts will provide valuable guidance in protecting copyright in electronically-transmitted works under TRIPS, as TRIPS incorporates the Berne Convention as its basis for copyright protection.\footnote{336} The Committee, in its final proposal, should set forth strong measures for protecting works that utilize the new technologies. The final proposal should also call for member states to provide legal remedies for both high-tech and more traditional forms of infringement.

1. Penalizing Anti-Encryption Devices Enhances Security of Works in Cyberspace

The proposed civil penalties for the use of anti-encryption devices

\footnote{332. See supra notes 72-73 and accompanying text (stating that technology required to view or hear works is same technology that can be used to copy works).}
\footnote{333. See supra notes 241-47 and accompanying text (discussing economic analysis in favor of protection of intellectual property by developing nations); see also supra notes 257-262 (discussing economic analysis disfavoring protection of intellectual property by developing nations).}
\footnote{334. Braga, supra note 16, at 261-63. The economic model Braga describes would not disfavor strong protection in all cases, and acknowledges significant economic benefits that accrue to nations that offer strong protection. Id.}
\footnote{335. See supra notes 241-47, 260-62 and accompanying text (outlining economic analyses of intellectual property protection by developing countries).}
\footnote{336. See supra note 148 and accompanying text (describing TRIPS' incorporation of Berne Convention provisions).}
devices are an important initiative in controlling piracy in cyberspace. Criminalizing the possession of these devices, as some have recommended, would control piracy even more effectively than civil penalties. The Committee of Experts has properly recognized the inadequacy of civil remedies against infringement businesses; the use of criminal sanctions to deter the use of anti-encryption devices is necessary to ensure safe passage on the information superhighway.

The proposed border measures will benefit copyright owners who seek to prevent importation of infringing books, videocassettes, and CDs, but are helpless against international transmission of information. The use of encryption is the only feasible method of protecting works in cyberspace. Banning anti-encryption devices may conceivably prevent some forms of legal copying. The devices contemplated by the Committee's proposal, however, which are actually computer programs, are different in kind than the VCRs that are the subject of U.S. court decisions cited by opponents of a ban, and thus lack significant non-infringing uses. Any inconvenience suffered by those with a legitimate right to copy works is greatly outweighed by the danger that the proliferation of anti-encryption devices will leave copyrighted works unprotected in the digital environment.

2. Protection of Computer Programs Under Copyright Ensures Proper Protection

Some nations already recognize computer programs as worthy of copyright protection. The Committee's proposal that a Berne Protocol do the same, and classify computer programs as

337. Third Session Memorandum, supra note 24, at 95, ¶ 75.
338. Fourth Session Memorandum, supra note 24, at 22, ¶ 74.
339. Third Session Memorandum, supra note 24, at 94, ¶ 72.
340. Id. at 96, ¶ 77.
341. See Burk, supra note 5, at 3 (discussing ease with which electronic works cross borders).
342. See supra notes 92-95 and accompanying text (delineating objections to prohibition of devices that circumvent copy-protection methods).
343. See supra notes 86-88 and accompanying text (outlining kinds of encoding usable in cyberspace). The Author suggests that a computer program designed to defeat such encoding would not have a substantial non-infringing use.
344. See supra note 92 and accompanying text (discussing Sony and copying devices with non-infringing uses).
345. See supra note 34 and accompanying text (describing protection of computer programs under U.S. copyright law).
literary works, is essential to secure worldwide protection for computer programs. The proposed measures recognize that all information in digital form requires protection.

It is debatable, however, whether computer programs should enjoy precisely the same term of protection, fifty years, as collaborative literary works. Computer programs, particularly those designed for end-users and consumers, are rarely marketed for more than two years without being upgraded or replaced by other software products. Protecting programs as literary works reflects positively on their value; a shorter term of protection might prove more practical.

3. Conservatory Measures Are Needed to Combat Piracy Businesses

The Committee of Experts' proposal that all signatory nations enact measures allowing for the seizure of the assets of an infringement business is a key measure in battling piracy. As with the proposed anti-encryption measures, the Committee properly recognized the importance of preventing such businesses from re-opening after the imposition of less stringent penalties. These measures, if part of a Berne Protocol, will provide a strong deterrent to those who would start such businesses.

CONCLUSION

WIPO should adopt strong measures of copyright protection for electronically-transmitted works in a protocol to the Berne Convention. The willingness of the GATT negotiators to use the Berne Convention as the standard for copyright protection magnifies the importance of strong enforcement measures by WIPO. By adopting a strong standard, WIPO will reduce, if not eliminate, the incentive of nations to seek unilateral and bilateral solutions to piracy problems. Both developing nations and the post-industrial states will derive the benefits of a rich

346. See supra notes 307-12 and accompanying text (outlining the Committee's debate on protection for computer programs).

347. Cf. Gillian Shaw, '90's Jobs Come From Blue Box, VANCOUVER SUN, Feb. 24, 1995, at D2 ("Why teach a [worker] how to use a computer program that may be obsolete six months from now?").

348. See supra note 287 and accompanying text (describing seizure measures).

349. See supra notes 292-95 and accompanying text (describing infringement businesses).
body of literary and artistic works available to more citizens of the world than ever before.