PROTECTION OF INTELLECTUAL PROPERTY ON THE WORLD WIDE WEB: IS THE DIGITAL MILLENNIUM COPYRIGHT ACT SUFFICIENT?

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I. INTRODUCTION

The inherent openness of the World Wide Web ("WWW" or "the Web") raises legal questions surrounding the ability to protect intellectual property on the Web without losing the wide range of capabilities provided by the Web. Intellectual property issues surrounding some aspects of the Internet, such as domain names, have been analyzed by the courts and academics.[1] Recent legislation has provided guidance on some matters.[2] However, other extremely significant intellectual property issues involving the Web, particularly copyright infringement, have not yet been settled.[3]

In the past, United States copyright law has been flexible enough to handle developing technologies such as radio, television, photocopying, and computer software.[4] The capabilities and openness of the Web, where copyright infringement is as simple as clicking a mouse, present a significant test for copyright law.[5] Some experts argue that copyright law should be entirely replaced; others argue that amending the current code is sufficient.[6] Additionally, courts may be asked to interpret present copyright law in the presence of the new scenarios presented by the Web. Some suggest that we should rely on contract law rather than copyright law,[7] while others question whether the Internet can be

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1. *See* Jeffrey R. Kuester & Peter A. Nieves, *Hyperlinks, Frames and Meta-Tags: An Intellectual Property Analysis*, 38 IDEA 243, 244 (1998).
2. *See* Digital Millennium Copyright Act, Pub. L. No. 105-304, 112 Stat. 2860 (1998) (to be codified at scattered sections of 17 U.S.C. § 1201).
3. *See* Kuester & Nieves, *supra* note 1, at 244.
4. *See* April M. Major, *Copyright Law Tackles Yet Another Challenge: The Electronic Frontier of the World Wide Web*, 24 RUTGERS COMPUTER & TECH. L.J. 75, 76 (1998); 17 U.S.C. §§ 101 to 1101 (1994).
5. *See* Major, *supra* note 4, at 76.
6. *See id.* at 77.
7. *See* Raymond T. Nimmer, *Breaking Barriers: The Relation Between*

regulated at all.[8] One question presented by this Note is, "Who is right?" In other words, which, if any, of these alternatives provides the best solution to the dilemmas presented by the openness and ease of data distribution provided by the Web?

In the interim, users and businesses are left without any guidance as to what is legal and what is not. In some situations it may be possible to predict how a court is likely to rule, but in other situations no analogy can be drawn to prior technology. Attorneys cannot advise their clients confidently. Both the legal and technical communities anticipated that rulings in early cases would provide guidance;[9] however, those cases settled or addressed remote issues.[10] No one wants to be the guinea pig and risk a costly court ruling when there is no way of adequately predicting the outcome.

In the absence of court rulings, recently enacted legislation is touted as a solution for the digital age.[11] The Digital Millennium Copyright Act ("DMCA") was signed into law on October 28, 1998, amending Title 17 of the United States

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Contract and Intellectual Property Law, 13 BERKELEY TECH. L.J. 827, 829 (1998); Julie E. Cohen, *Copyright and the Jurisprudence of Self-Help*, 13 BERKELEY TECH. L.J. 1089, 1141 (1998); *infra* Part IV.A. Contract and intellectual property law have always co-existed, but in the area of on-line digital information, contract law plays a dominant role and copyright law fades into the background. *See* Nimmer, *supra*, at 829. Nimmer argues that the distribution method for on-line digital information is not well suited to property right constructs derived from the making and distributing of copies, so new property interests will be construed dealing with transmission of and access to digital information found on-line. *See id.*

New digital technology offers copyright holders almost absolute control over their works through the use of "self-enforcing" digital contracts. *See* Cohen, *supra*, at 1141. In effect, the digital contract can cause the work to be disabled automatically, or even removed, if the provisions are violated. *See id.* Of course, where such self-enforcing contracts are in conflict with copyright law and the doctrine of fair use, a defense to the licensees who disable the protective code is available. *See id.*

8. *See* Jack L. Goldsmith, *Against Cyberanarchy*, 65 U. CHI. L. REV. 1199, 1200 (1998) (discussing the difficulty of regulating the Internet because of choice of law issues and arguing that skeptics who believe that "national regulators should 'defer to the self-regulatory efforts of Cyberspace participants'" are incorrect (quoting David Post and David Johnson, *Law and Borders—The Rise of Law in Cyberspace*, 48 STAN. L. REV. 1367, 1367 (1996))). Goldsmith states that cyberspace transactions are no different than any other transactions involving multiple jurisdictions and, although challenging, will be resolved, because similar issues have arisen and been handled in other multiple jurisdiction contexts. *See id.* at 1250.

9. *See* Ike O. Echerou, *Linking to Trouble: Legal Liability Emanating from Hyperlinks on the World Wide Web*, J. PROPRIETARY RTS., Feb. 1998, at 2, 3 (citing TicketMaster Corp. v. Microsoft Corp., No. 97-3055DPP (C.D. Cal. complaint filed April 28, 1997); Shetland Times, Ltd. v. Wills, Scot. Sess. Cas. (Oct. 24, 1996) 1 EIPLR 723 (Nov. 1, 1997)); Washington Post Co. v. Total News, Inc., No. 97 Civ. 1190 (S.D.N.Y. complaint filed June 6, 1997); Bernstein v. JC Penney, Inc., No. 98-2958, 1998 WL 906644 (C.D. Cal. Sept. 28, 1998).

10. *See* Echerou, *supra* note 9, at 3.

11. *See* 144 CONG. REC. S12972-01 (daily ed. Oct. 21, 1998) (statement of Sen. Dewine).

Code.[12] This law is part of an international plan to provide protection for the digital age in the new millennium.[13] However, the DMCA does not answer many of the copyright issues. While protecting Internet service providers ("ISPs") from liability, the DMCA leaves Web users and Web site authors with very little guidance.

II. THE WORLD WIDE WEB

In order to understand the legal implications of the current and future growth and success of the Web, and in order to understand the success or failure of the DMCA, it is first necessary to understand what the Web is and how it is used. This Part provides a brief historical perspective on the evolution of the Web and an introduction to the capabilities and functioning of the Web.

A. What is the World Wide Web?

The Web was made possible by the existence of the Internet. The Internet is a nationwide network of computing facilities, originally intended for use by the U.S. government and universities, which was developed by the government through the Defense Advanced Research Projects Agency ("DARPA").[14] As the Internet became available to businesses, its commercial potential was recognized. The Web has become the vehicle for achieving this potential by reaching a growing base of consumers worldwide.[15] Although the Internet and the Web are commonly thought of synonymously, they are not the same. The Internet encompasses not only the Web, but also Telnet, File Transfer Protocol ("FTP"), newsgroups, and e-mail.[16] The Web provides access to a subset of the Internet through a user-friendly interface, allowing non-technical users to access easily the vast array of information available through the network of information resources provided by the Internet.[17] Furthermore, both the volume and type of information available on the Internet has increased dramatically because of the demand for a

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12. *See* Digital Millennium Copyright Act, Pub. L. No. 105-304, 112 Stat. 2860 (1998) (to be codified at scattered sections of 17 U.S.C.). See *infra* Part III, for a discussion of the DMCA.

13. *See* 144 CONG. REC. S12972-01 (daily ed. Oct. 21, 1998) (statement of Sen. Dewine).

14. *See* Richard P. Rollo, Casenote, *The Morass of Internet Personal Jurisdiction: It Is Time for a Paradigm Shift*, 51 FLA. L. REV. 667, 676 (1999).

15. *See* Kuester & Nieves, *supra* note 1, at 245.

16. *See* Major, *supra* note 4, at 78. Telnet is a feature that allows users to access files and programs on a remote computer without the use of the Web interface. *See, e.g.*, BARRON'S DICTIONARY OF COMPUTER AND INTERNET TERMS 459 (6th ed. 1998). FTP "is the most widely available method for transferring electronic files." Major, *supra* note 4, at 78 n.11. Newsgroups are electronic discussion groups that Internet users can access. *See id.* at 98 n.126.

17. *See id.* (citing Henry H. Perritt, Jr. & April M. Major, *Technical Note: Electronic Publishing* (visited Feb. 9, 1998) <http://www.law.vill.edu/vcilp/technotes/epub.htm>) (explaining that the File Transfer Protocol is a method of transmitting and receiving digital/electronic files between different computers that are connected to the Internet).

wide variety of information created by the non-technical users of the Web.[18]

The Web allows users to access information without having to know how or where the information is stored or how it is transmitted.[19] Every computer that is connected to the Web has a unique Internet Protocol ("IP") address, and every document stored in a computer has a unique address.[20] Many of these computers, also known as servers, store data for access by users of the Web.

HyperText Markup Language ("HTML") is used to create documents for use on the Web.[21] These documents are usually called Web pages.[22] HTML consists of a set of codes that instruct the Web browser[23] where to place line breaks, bold text, new paragraphs, italics, etc.[24] In other words, HTML codes are used to format the contents of Web pages and usually are invisible to the user just as formatting codes are not seen by users of most word processors. However, just as with word processors, in most cases it is possible to view the codes if desired.[25]

Collections of Web pages form Web sites.[26] The first Web page seen on a Web site is referred to as a home page.[27] Web sites contain documents made up of text, graphics, video, and/or audio components that are stored on the servers.[28] Each Web page at a Web site is accessible by specifying the particular document's address. This address is called the Uniform Resource Locator ("URL").[29] At a minimum, the URL specifies the protocol and server where the information is located.[30] The URL may also specify the directory and file name where the file containing the document is located.[31]

The HyperText Transfer Protocol ("HTTP") is used for requesting and transferring documents between computers on the Web.[32] Access to Web sites is

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18. *Cf.* Steven R. Knowlton, *The Right Car at (Maybe) the Right Price*, N.Y. TIMES, Oct. 1, 1998, at G3; Victor Mather, *Web Offers Wide Menu For Sports*, N.Y. TIMES, July 2, 1998, at G1; John Markoff, *Infoseek Set to Announce Web-Searching Innovation*, N.Y. TIMES, Sept. 8, 1997, at D5.

19. *See* sources cited *supra* note 18.

20. *See* Echerou, *supra* note 9, at 2.

21. *See id.*

22. *See id.*

23. See *infra* note 35 and accompanying text for definition and discussion of Web browsers.

24. *See* Kuester & Nieves, *supra* note 1, at 245.

25. *See id.* at 245–46.

26. *See* Echerou, *supra* note 9, at 2.

27. *See id.*

28. *See* World Wide Web Consortium, *HTML 4.0 Specification* (last modified Apr. 24, 1998) <http://www.w3.org/TR/REC-html40/struct/objects.html#h-13.1>.

29. *See* BARRON'S DICTIONARY OF COMPUTER AND INTERNET TERMS 488 (6th ed. 1998).

30. *See id.* An example of a URL is "htttp://www.arizona.edu," where "http" is the protocol and "www.arizona.edu" is the name of the server/machine where the information is located.

31. *See* Major, *supra* note 4, at 82 (quoting Rick Ayre & Thomas Mace, *Internet Access: Just Browsing*, PC MAGAZINE, Mar. 12, 1996, at 107).

32. *See* Echerou, *supra* note 9, at 2; Major, *supra* note 4, at 79.

made possible by software called Web browsers which use this protocol.[33] Netscape's Navigator and Microsoft's Internet Explorer are examples.[34] Within the browser software, a user can either directly or indirectly (via a HyperText link) specify the particular URL that she wishes to view.[35] The browser sends the request to the appropriate server or servers by initiating one or more Transmission Control Protocol ("TCP") connections.[36] A specialized server called a Domain Name Server is contacted to translate the URL into an IP address, and the address is returned to the browser.[37] The browser then contacts the server located at that IP address, and the remote server sends a copy of the text and any graphics to the browser.[38] The browser downloads the copy into Random Access Memory ("RAM") on the user's computer, and then the copy is displayed.[39] Under certain circumstances, a copy may be saved temporarily on the user's hard drive. This process is called caching.[40]

If a user does not know the specific address of the Web page that she wants to access, she can use search engines such as Yahoo!, Alta Vista, Web Crawler, or Lycos.[41] Search engines are databases that keep track of most accessible Web sites.[42] They make use of software called spiders or crawlers that periodically attempt to locate new sites and add them to their databases.[43] This allows users to search using keywords and identify Web pages corresponding to the desired topic.[44]

Because Web users frequently utilize search engines to locate specific Web pages, it is important for Web page designers to embed data into their Web pages which will ensure that search engines find their page in response to a user's search.[45] When a search engine locates a Web page in response to a search and the user looks at that page, it is called a "hit."[46] When a Web page is designed to increase visibility, such as a commercial Web page used to increase business, it is essential to have a large number of hits. As a result, Web page designers use invisible keywords, called meta-tags, that are embedded in the Web page to ensure

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33. *See* Echerou, *supra* note 9, at 2; Major, *supra* note 4, at 79.

34. *See* Echerou, *supra* note 9, at 2.

35. See *infra* Part II.B.1 for an explanation of HyperText links.

36. *See* Major, *supra* note 4, at 81. Each inline graphic requires a separate TCP connection to transfer the graphic, so requesting one Web page may result in multiple TCP connections to one or more Web servers. *See id.*

37. *See id.* at 83.

38. *See* Echerou, *supra* note 9, at 2; Major, *supra* note 4, at 82.

39. *See* Echerou, *supra* note 9, at 2; Major, *supra* note 4, at 82.

40. *See* Echerou, *supra* note 9, at 2. Caching presents obvious questions of copyright liability because it involves creating a copy of the work and can infringe on a copyright owner's copyright reproduction rights. See *infra* Part IV, for a discussion of these copyright liability questions.

41. *See* Kuester & Nieves, *supra* note 1, at 246.

42. *See id.*

43. *See id.* at 247.

44. *See id.*

45. *See id.*

46. *See* BARRON'S DICTIONARY OF COMPUTER AND INTERNET TERMS 219 (6th ed. 1998).

that search engines locate their page in response to queries.[47]

The Web provides unsurpassed, open access to information. With this openness comes certain legal implications. To understand them, it is essential to comprehend how the Web links information stored on different computers throughout the world.

B. Linking Resources on the World Wide Web

Information stored on different computers located around the world is accessible via the Web through a process called linking.[48] Linking, which connects Web sites together, is one of the major advantages of the Web.[49] For example, one Web page for the University of Arizona allows a user to connect directly to the homepage for the Arizona Sonoran Desert Museum by a simple click of the mouse on the appropriate text.[50] To accomplish this connectivity, three main forms of linking are used: HREF linking, IMG linking, and framing.[51] Links are incorporated into Web pages using HTML codes.[52] For example, HREF codes usually result in the Web browser displaying the link as bold or underlined text or as icons.[53]

1. HREF Linking

HyperText Reference links ("HREF links") are probably the most common form of linking.[54] When a user clicks her mouse on text or an icon representing an HREF link to another document, the browser requests access to that document.[55] The document may be located on the local server or on another server anywhere on the Web.[56] Most Web pages contain HREF links to documents maintained locally as well as to documents maintained by third parties.[57]

As an example, the home page for an accounting firm usually contains references to local Web pages containing information on the firm's partners and associates. Such home pages usually also contain references to Web pages maintained by third parties that contain sources of additional information, such as Web pages maintained by the Internal Revenue Service.

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47. *See* Kuester & Nieves, *supra* note 1, at 247. The use of registered trademarks as meta-tags raises interesting questions of fair use in the trademark context. However, such questions are beyond the scope of this Note. See *infra* Part IV.B, for a brief discussion.

48. *See* Echerou, *supra* note 9, at 2.

49. *Id.*

50. UAInfo Team & UAInfo Advisory Council, *The University of Arizona*, (visited Oct. 13, 1999) <http://www.arizona.edu/libraries.shtml#other>.

51. *See* Echerou, *supra* note 9, at 2–3.

52. *See id.* at 2; Kuester & Nieves, *supra* note 1, at 245–46.

53. *See* Kuester & Nieves, *supra* note 1, at 246.

54. *See* Echerou, *supra* note 9, at 2.

55. *See* Major, *supra* note 4, at 81.

56. *See id.*

57. *See* Echerou, *supra* note 9, at 2.

2. IMG Linking

IMG (image) linking allows the browser to display images or text within the body of a document.[58] The display of images and sometimes text via IMG linking is automatic when the Web page is accessed,[59] whereas, HREF links require the user to click the mouse for access.[60] IMG links are most commonly used to display images or graphics within a Web page. These images are usually stored on the local server and accessed locally.[61] IMG links can be used to access images and graphics stored on remote servers anywhere on the Web. For the user, this process of accessing and displaying the image is transparent whether it is stored locally or remotely.[62] The image or graphic appears as part of the Web page just like any other element of the page.[63] Although the document referenced by the IMG link is displayed in the referring page,[64] no copies are made or stored on the referring server.[65] If the document accessed by the IMG link is stored on the referring server rather than another server, that copy remains on the referring server. A copy also is put in RAM on the user's computer system.

3. Framing

Framing is more of a display method than an actual form of linking.[66] HTML instructions called "Frame Tags" allow the Web page designer to display a window within a window.[67] Each window is called a frame and has a unique URL for determining what is displayed within the frame.[68] The use of frames allows a Web designer to display the contents of two or more Web sites, often located on different servers, on the same Web page.[69] These frames may or may not have visible borders, and the user may reasonably believe that all the information displayed is from the same Web site.[70]

III. THE DIGITAL MILLENNIUM COPYRIGHT ACT

The DMCA implements the World Intellectual Property Organization Copyright Treaty and the Performances and Phonograms Treaty ("WIPO treaties") and provides liability protection to Internet service providers.[71] The WIPO treaties

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58. *See id.* at 3.
59. *See id.*
60. *See id.*
61. *See id.*
62. *See id.*
63. *See id.*
64. The referring page is the page containing the link to the accessed image.
65. *See* Echerou, *supra* note 9, at 3.
66. *See id.*
67. *See id.*
68. *See id.*
69. *See id.*
70. *See* World Wide Web Consortium, *HTML 4.0 Specification* (last modified Apr. 24, 1998) <http://www.w3.org/TR/REC-html40/present/frames.html#h-16.2.2.2>.
71. *See* Digital Millennium Copyright Act, Pub. L. No. 105-304, 112 Stat. 2860 (1998) (to be codified at scattered sections of 17 U.S.C.).

requires ratifying countries to update their laws against piracy of copyrighted materials in accordance with the treaties.[72] Each country also must extend its laws "to the electronic commerce marketplace epitomized by the Internet."[73] Senator Dewine characterized this as great news for all Americans.[74]

The DMCA consists of five titles: Title I—Implementation of the WIPO treaties; Title II—Online Copyright Infringement Liability Limitation; Title III—Computer Maintenance or Repair Copyright Exemption; Title IV—Miscellaneous Provisions; and Title V—Protection of Certain Original Designs.[75]

Title I made minor changes to the United States copyright code to conform with the WIPO treaties.[76] The primary changes are found in section 1201 of the copyright code,[77] which now prohibits circumventing a "technological measure" that controls access to a protected work.[78] Furthermore, it is illegal to "manufacture, import, offer to the public, provide, or otherwise traffic in any technology, product, service, device, component, or part thereof" that is designed primarily for the purpose of circumventing a technological measure.[79]

The law states that nothing in Title I of the Act is intended to affect rights under the doctrine of fair use.[80] Representative Boucher went so far as saying that "strong fair use" provisions were maintained.[81] Although the fair use issues as applied to tapes, compact discs, DVDs, etc., are extremely important, they do not directly answer the questions with regard to the Web. The DMCA does little to address the fair use issues involved in Web usage.

Title II limits copyright infringement liability for Internet service providers. Specifically, provisions are made for limiting liability for copyright infringement resulting from transitory digital network communications, system caching, information residing on systems or networks at the direction of users, and information location tools, including hypertext linking.[82] Limitations on liability

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72. *See* 144 CONG. REC. S12972-01 (daily ed. Oct. 21, 1998) (statement of Sen. Dewine).

73. *Id.*

74. *See id.*

75. *See* Digital Millennium Copyright Act, Pub. L. No. 105-304, 112 Stat. 2860 (1998) (to be codified at scattered sections of 17 U.S.C.).

76. *See* 144 CONG. REC. S12972-01 (daily ed. October 21, 1998) (statement of Sen. Dewine).

77. *See* Digital Millennium Copyright Act, Pub. L. No. 105-304, § 103(a), 112 Stat. 2860, 2863 (1998) (to be codified at 17 U.S.C. § 1201).

78. *See infra* notes 154–156 and accompanying text for an example of a "technological measure."

79. Digital Millennium Copyright Act, Pub. L. No. 105-304, § 103(a), 112 Stat. 2860, 2864 (1998) (to be codified at 17 U.S.C. § 1201).

80. *See id.* § 103(a), 112 Stat. at 2865 (to be codified at 17 U.S.C. § 1201(c)(1)). Originally a common law notion, the fair use doctrine is now codified at 17 U.S.C. § 107 (1994). Section 107 enumerates a multi-factor test for what constitutes fair use. For a detailed description of fair use, see *infra* Part IV.A.1.b.

81. 144 CONG. REC. E2166-01 (daily ed. Oct. 14, 1998) (statement by Rep. Boucher).

82. *See* Digital Millennium Copyright Act, Pub. L. No. 105-304, § 202(a), 112

are provided for non-profit educational institutions that provide Internet service to faculty and students.[83]

Many questions have been raised as to whether users and Internet service providers are infringing copyrights when using the Web. With the absence of court rulings, this Act is the first guideline to be offered. However, it raises further questions. By explicitly providing liability limitations for ISPs, does this mean that Congress sees these various forms of Web access as infringing? Otherwise, one could argue that no need exists for this part of the law. On the other hand, is the law merely protecting ISPs from frivolous lawsuits to ensure the future existence of ISPs because they are arguably the ones most at risk of unfair economic loss? These issues will be discussed in Part IV.

Title III allows computer owners to copy software for the purpose of maintenance or repair without it constituting copyright infringement.[84] Title IV consists of miscellaneous provisions, including exemptions for ephemeral recordings from copyright infringement under certain conditions. It also expands the doctrine of fair use for libraries and archives.[85] Finally, Title V provides protection of original designs.[86]

IV. LEGAL ISSUES ARISING FROM THE INHERENT OPENNESS OF THE WORLD WIDE WEB: APPLYING THE DMCA AND TRADITIONAL COPYRIGHT DOCTRINE TO THE INTERNET

The Internet and Web offer many advantages for electronic publishing and direct access to original works.[87] However, the continued use of this medium depends upon providing authors with adequate copyright and trademark protection in this environment.[88] For example, the recent case of *TicketMaster v. Microsoft* raised legal issues with regard to linking and the use of trademarks on Web pages.[89]

Stat. 2860, 2877-78 (1998) (to be codified at 17 U.S.C. § 512).

83. *See id.* § 202(a), 112 Stat. at 2881-82 (to be codified at 17 U.S.C. § 512(e)).

84. *See id.* §§ 301 to 302, 112 Stat. at 2886 (to be codified at 17 U.S.C. § 117(3)(c)); *Senate Passes Digital Millennium Copyright Act of 1998*, 15 COMPUTER L. 30 (1998).

85. *See* Digital Millennium Copyright Act, Pub. L. No. 105-304, §§ 401 to 407, 112 Stat. 2860, 2887 (1998) (to be codified at scattered sections of 17 U.S.C).

86. *See id.* §§ 501 to 505, 112 Stat. at 2905 (to be codified at 17 U.S.C. §§ 1301 to 1332 and scattered sections in 28 U.S.C.).

87. *See* Major, *supra* note 4, at 83–84.

88. *See id.* at 84.

89. *See* Kuester & Nieves, *supra* note 1, at 261 (citing the First Amended Complaint, TicketMaster Corp. v. Microsoft Corp., No. CV 97-3055 (C.D. Cal. complaint filed Apr. 28, 1997) (available *in* <http://www.ljx.com/LJXfiles/ticketmaster/complaint.html>)). TicketMaster filed a complaint alleging that Microsoft improperly used TicketMaster's name and logo on a Microsoft Web site. Microsoft used so-called "deep links" to connect its Web page to specific pages within the TicketMaster Web site, thereby allowing users to bypass all the policies, service information, and advertisements on the TicketMaster homepage when purchasing tickets. *See id.*

A. Copyright Protection, Infringement, and Possible Defenses

The United States Constitution gives Congress the right to protect creative works, and Congress has codified this power in the Copyright Act.[90] Copyright protection is afforded to "original works of authorship fixed in any tangible medium of expression, now known or later developed, from which they can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device."[91] Thus, original works available on the Web fall within this protection because they meet all of these criteria.[92]

The holder of a copyright under the Copyright Act as amended in 1976 has the exclusive rights to:

> (1) reproduce the copyrighted work, (2) prepare derivative works based upon the copyrighted work, (3) distribute copies of the copyrighted work...to the public by sale or other transfer of ownership, or by rental, lease, or lending, (4) in the case of literary, musical, dramatic, and choreographic works, pantomimes, and motion pictures and other audiovisual works, to perform the copyrighted work publicly, (5) in the case of literary, musical, dramatic, and choreographic works, pantomimes, and pictorial, graphic, or sculptural works, including the individual images of a motion picture or other audiovisual work, to display the copyrighted work publicly, and (6) in the case of sound recordings, to perform the copyrighted work publicly by means of a digital audio transmission.[93]

Under 17 U.S.C. § 501(a), "[a]nyone who violates any of the exclusive rights of the copyright owner...is an infringer of the copyright."[94] One act of infringement may violate one or more of the exclusive rights of the copyright holder.[95] Furthermore, infringement can be direct or indirect, the indirect infringement being either vicarious or contributory.[96] To prove infringement, a plaintiff must prove ownership of a valid copyright and that one of her exclusive rights has been violated.[97]

The United States Supreme Court has recognized that copyright protection provides economic incentives for the creative processes.[98] The Court

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90. *See* U. S. CONST. art. I, § 8, cl. 8; 17 U.S.C. §§ 101 to 1101 (1994).

91. 17 U.S.C. § 102 (1994).

92. *See* Major, *supra* note 4, at 86.

93. 17 U.S.C. § 106 (1994 & Supp. III 1997). For the definitions of key terms, such as "derivative works" and "pictorial, graphic, or sculptural works," see 17 U.S.C. § 101 (1994).

94. 17 U.S.C. § 501(a) (1994).

95. *See* Major, *supra* note 4, at 103.

96. *See* Echerou, *supra* note 9, at 6 n.2. For a detailed discussion of contributory infringement, see DONALD S. CHISUM & MICHAEL A. JACOBS, UNDERSTANDING INTELLECTUAL PROPERTY LAW § 4F[3][a](1) (1992).

97. Kuester & Nieves, *supra* note 1, at 253 (citing Feist Publications, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 361 (1991)). CHISUM & JACOBS, *supra* note 96, at § 4C.

98. *See* Major, *supra* note 4, at 85. *See also, e.g.*, Mazer v. Stein, 347 U.S. 201, 219 (1954)).

has stated that "encouragement of individual effort by personal gain is the best way to advance public welfare through the talents of authors and inventors in 'Science and useful Arts.'"[99] Thus, protecting the economic benefits of copyright holders is a way of achieving the greater goal of promoting and encouraging creative works for the good of society.[100]

In discussing the Digital Millennium Copyright Act and its importance, Senator Hatch stated that "[i]t has been over twenty years since such significant copyright law reforms have been enacted in this country."[101] However, it is important to note that the DMCA does not change the exclusive rights afforded to copyright holders.[102]

The use of links on the Web raises issues regarding copyright holders' rights. Several cases have been filed, but most have settled, which means that little guidance is available as to how the courts will interpret these issues in the new context of the Web.[103] The *TicketMaster* case was seen as having the potential to give some guidance,[104] but it recently settled, so again no court opinion is available.[105] The DMCA was seen as providing the potential for radical changes in the current copyright law to address these copyright issues.[106] The following discussion addresses possible infringement claims resulting from Web access to works protected by copyright law, possible defenses to infringement claims, and the potential impact of the DMCA.

1. Reproduction Rights

a. Infringement of Reproduction Rights by Users, Web Site Authors, and ISPs

Courts have said that an alleged infringer does not need to make an exact copy of the owner's work in order to be guilty of infringement, but rather the copy must possess "substantial similarity" to the owner's work.[107] Copyright law

99. *Mazer*, 347 U.S. at 219 (emphasizing the importance of rewarding time spent on developing "Science and the useful arts").

100. *See* Major, *supra* note 4, at 85.

101. 144 CONG. REC. S12375-02 (daily ed. Oct. 21, 1998) (comments by Sen. Hatch).

102. *See* 17 U.S.C. § 106 (1994 & Supp. III 1997).

103. *See* Echerou, *supra* note 9, at 3, 5 (citing TicketMaster Corp. v. Microsoft Corp., No. 97-3055DPP (C.D. Cal complaint filed April 28, 1997); Washington Post Co. v. Total News, Inc., 97 Civ. 1190 (S.D.N.Y. complaint filed June 6, 1997); Shetland Times, Ltd. v. Wills, Scott Sess. Cas., (Oct. 24, 1996) 1 EIPLR 723 (Nov. 11, 1997)).

104. *See* Echerou, *supra* note 9, at 3.

105. A stipulated dismissal was filed with the court on January 20, 1999. Interview with Kim Williamson, Partner, Brown & Bain, P.A., in Phoenix, Ariz. (Jan. 29, 1999).

106. *See* John Schwartz, *House Passes Copyright Bill; Clinton Says He'll Sign Bill Addressing Online Issues*, WASH. POST, Oct. 13, 1998, at C3; *Plugged In*, BALT. SUN, Oct. 19, 1998, at 1C.

107. *See* Passillas v. McDonald's Corp., 927 F.2d 440, 442 (9th Cir. 1991); Kuester & Nieves, *supra* note 1, at 253.

protects the expression of ideas.[108] To constitute infringement, the copy must be substantially similar in both the idea and the expression of the idea.[109] Note that independent development of the same work does not constitute infringement of reproduction rights; the work must actually be copied.[110]

One theory about copyright law states that none of the linking methods involves actual reproduction of the copyrighted work by the referring Web page's server when a user selects the link.[111] Under this theory, no direct infringement of reproduction rights is possible by a Web page author's use of linking.[112] However, an exception to this theory exists when the Web page author and the ISP are one and the same. In this case, the ISP is directly involved in the routing and transmission of the infringing material and may store a transient copy of it. In this sense, direct infringement of reproduction rights is possible here and in similar circumstances.

The user receives a copy of the work from the server, and it is stored in RAM on the user's computer.[113] As a result, the person or entity responsible for the referring Web page[114] may have committed contributory infringement of the reproduction rights because the link on the Web page aids the user in making this copy.[115] Furthermore, the user has arguably committed direct infringement by requesting and obtaining a copy of the infringing material. In other words, by simply clicking her mouse it would appear that she has committed copyright infringement, unless a valid defense exists.

Interestingly, links are placed on Web pages for the express purpose of giving users access to information on another Web page. Therefore, to determine whether infringement has occurred, it is necessary to consider whether the link points to another page on the same Web site or to an independent Web site. Assuming that the user had the right to access the current Web page, then it is fair for the user to assume that they have permission to follow links to other pages on the same Web site. That does not necessarily mean that the user has permission to follow links to other Web sites however. It is necessary to consider whether permission was granted for linking, explicitly or implicitly, or whether defenses exist that allow the resulting reproduction regardless of permission.

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108. *See* Kuester & Nieves, *supra* note 1, at 253. Copyright law does not protect ideas themselves. *See* Baker v. Selden, 101 U.S. 99, 103–04 (1880).

109. *See* Kuester & Nieves, *supra* note 1, at 253 (citing Passillas v. McDonald's Corp., 927 F.2d 440, 442 (9th Cir. 1991)).

110. *See id.* at 254 (citing Granite Music Corp. v. United Artists Corp., 532 F.2d 718, 720 (9th Cir. 1976)).

111. *See* Echerou, *supra* note 9, at 3.

112. *See id.*

113. *See id.*

114. The term "referring Web page" indicates the Web page that contains the link and thus "refers" the user to another Web page.

115. *See* Echerou, *supra* note 9, at 3. *See also* CHISUM & JACOBS, *supra* note 96, § 4F[3][a](1).

b. Possible Defenses

As discussed previously, when a Web page is accessed a copy is stored in RAM on the user's computer.[116] This is an unavoidable consequence of the technology.[117] As a result, the reproduction rights of the creator may be infringed.[118] However, the copy is transient unless the user specifically saves a copy. If not saved, the copy is usually gone when the session ends.[119] Therefore, the copying may be permitted by federal copyright law which allows copying if necessary for utilization of the copyrighted work.[120] However, if a copy was saved as a result of system caching, the copy may remain until the system replaces the copy with something else. System caching is automatic, and arguably can be considered necessary for utilization by the user. To avoid system caching would require changes that are beyond the normal responsibility of users, and at the hardware level beyond the accessibility of users, making this interpretation reasonable.[121] Because 17 U.S.C. Section 117 contains language that limits the copying of computer programs, Web pages are arguably subject to this provision as a type of computer program written in the HTML language.[122]

In *Baker v. Selden*,[123] the United States Supreme Court stated that aspects of a work that are incidental to the process are not subject to copyright.[124] Arguably, the transient copy that is made when a Web page is accessed is merely incidental to the technology and thus not protected by copyright law.[125]

In addition to the functionality defense embodied in *Baker v. Selden*, the defenses of fair use and implied license may also be applicable.[126] The difference between these two defenses is the element of intent. An implied license implies intent on the part of the creator to allow use of her work, whereas fair use does not

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116. *See supra* note 52 and accompanying text.

117. *See* Major, *supra* note 4, at 93 (citing Jane C. Ginsburg, *Putting Cars on the "Information Superhighway": Authors, Exploiters, and Copyright in Cyberspace*, 95 COLUM. L. REV. 1466, 1476 (1995)).

118. *See id.*

119. *See id.* at 93 n.94.

120. *See id.* at 93; 17 U.S.C. § 117 (1994). Many forms of creations, such as musical compositions, books, and painting, may qualify as copyrighted works. For the complete definition of "a work" under copyright law, see 17 U.S.C. § 101 (1994).

121. Caching usually occurs both under control of the browser and automatically by the hardware. Some browsers allow the user to turn off caching by the browser. However, this does not disable the automatic caching that occurs at a different level in the hardware independent of whether the program running is a browser, word processor, or any other program. Typically, the user cannot disable this form of caching. *See, e.g.*, BARRON'S DICTIONARY OF COMPUTER AND INTERNET TERMS 70–71 (6th ed. 1998).

122. *See* 17 U.S.C. § 117 (1994); Major, *supra* note 4, at 93.

123. 101 U.S. 99 (1880).

124. *See* Major, *supra* note 4, at 94 (citing Baker v. Seldon, 101 U.S. 99, 103 (1880)). The *Baker* Court stated that a book can be copyrighted but the method of accounting described in the book cannot be protected under copyright law. *See Baker*, 101 U.S. at 103.

125. *See* Major, *supra* note 5, at 94.

126. *See id.*

require such intent.[127]

Even if a court determines that one or more of the exclusive rights of a copyright holder have been violated, under current law the doctrine of fair use may provide a defense. In certain circumstances, the doctrine of fair use allows a party to use the copyrighted material without the authorization of the copyright holder.[128] The Supreme Court has summarized the doctrine in one question: "[W]ould the reasonable copyright owner have consented to the use?"[129]

Factors considered when determining whether a particular use is a fair use include:

> (1) the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes; (2) the nature of the copyrighted work; (3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and (4) the effect of the use upon the potential market for or value of the copyrighted work.[130]

However, these factors are not considered definitive but rather are intended to be "balanced in equity by a court."[131]

In *Sony Corp. of America v. Universal Studios*,[132] the Supreme Court determined that viewers who videotape programs and watch them later are not violating copyright law.[133] The Court found that such use fell within fair use because the public had been "invited to witness [a televised copyrighted audiovisual work] in its entirety free of charge."[134] Some would argue that because a Web page is made available free of charge, the doctrine of fair use provides a successful defense to the transient copying.[135] However, arguments have been made that caching is not a fair use because it allows a user to avoid further contact with the server containing the Web page and in some instances can result in reduced revenues.[136] Given the ruling in *Sony*, not only does caching seem to be permitted, but also the user's intentional retention of a copy on disk for future viewing seems to be permitted. Nevertheless, courts could choose to distinguish

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127. *See id.*

128. *See* Echerou, *supra* note 9, at 4; Major, *supra* note 5, at 92 (citing Harper & Row, Publishers, Inc. v. Nation Enters., 471 U.S. 539, 549 (1985)). *See also* 17 U.S.C. § 107 (1994).

129. Harper & Row, Publishers, 471 U.S. at 550 (quoting ALAN LATMAN, FAIR USE OF COPYRIGHTED WORKS 14 (United States Copyright Office Study No.10, 1958)).

130. 17 U.S.C. § 107.

131. Kuester & Nieves, *supra* note 1, at 260 (citing 3 M. NIMMER & D. NIMMER, NIMMER ON COPYRIGHTS § 13.05(A) (1992)).

132. 464 U.S. 417 (1984).

133. *See id.* at 454–55.

134. *See* Major, *supra* note 4, at 95 (quoting Sony Corp. of America v. Universal Studios, 464 U.S. 417, 449 (1984)) (citing 17 U.S.C. § 107 (1994)).

135. *See id.*

136. *See id.* at 94 (citing HENRY H. PERRITT, JR., LAW AND THE INFORMATION SUPERHIGHWAY 416, 467 (1996)). Caching stores a copy of the Web page to disk so that if the user wants to return to the same page within a short time, the page is retrieved from the disk rather than having to access it via the Internet again.

these scenarios. The *Sony* Court determined that viewers may videotape a television program if they are unable to view it during the broadcast because it will not be available later.[137] One could argue that this is because the copyright holder and advertisers prefer that the viewer watch the program later rather than not at all. On the other hand, the Web page presumably will be available and accessible whenever the user gets around to viewing it, so there is no need for caching or saving the Web page on the user's machine. Thus, no benefit drives the copying, so the answer to the question "would the reasonable copyright owner have consented to the use?"[138] probably is no.[139]

An additional avenue of defense derives from the concept of an implied license granted by the copyright holder. Unlike the doctrine of fair use, the existence of an implied license relies upon the intent of the creator. Unauthorized use of a copyrighted work constitutes infringement, but a license, even an implied license, is a defense to a claim of infringement.[140]

Some argue that by placing their work on the Web, a creator shows intent to allow others to "read, download, link to, and possibly even to distribute the material or create derivative works" unless the creator expressly forbids such use.[141] In effect, the argument is that an implied license has been granted.[142] Others argue that the creator does not give up her exclusive rights merely by giving access to the work, unless she expressly indicates her intent to give up those rights.[143] However, according to Echerou, there are public policy reasons for construing an implied license due to the fundamental reliance of the Web on the ability to at least use HREF linking.[144] He argues that the public has a strong interest in maintaining accessibility to information via the Web, and since HREF linking is required to provide this access, it is in the public interest to interpret this as a legal activity.[145] Finding an implied license is one such interpretation.

This raises the question of whether an implied license is possible in the context of copyright law. In *Effects Associates, Inc. v. Cohen*, the Ninth Circuit quoted a treatise stating that "'[a] nonexclusive license may be granted orally, or may even be implied from conduct.'"[146] Prior decisions require that, the existence of an implied license be determined on a case-by-case basis.[147] In making this determination, factors to consider include "whether 'the plaintiff voluntarily

137. *Sony*, 464 U.S. at 454–55.

138. Harper & Row, Publishers, Inc. v. Nation Enters., 471 U.S. 539, 550 (1985).

139. This assumes that courts will look to the factors outlined in 17 U.S.C. § 107 (1994) to determine the answer to this question. *See supra* note 129 and accompanying text.

140. *See* Major, *supra* note 4, at 90 (citing Oddo v. Ries, 743 F.2d 630, 634 & n.6 (9th Cir. 1984)).

141. *See* Major, *supra* note 4, at 90.

142. *Id.* at 87–88.

143. *See id.* at 88.

144. *See* Echerou, *supra* note 9, at 4.

145. *See id.*

146. Effects Assocs., Inc. v. Cohen, 908 F.2d 555, 558 (9th Cir. 1990) (citations omitted).

147. *See* Major, *supra* note 4, at 90 (citing Herbert v. United States, 32 Fed. Cl. 293, 298 (1994)).

submitted the work to the defendant for publication'"[148] and whether or not there is a "'meeting of the minds.'"[149] A strong argument for an implied license exists if the creator voluntarily allowed her work to be on the Web, but it is more difficult to find a "meeting of the minds."[150] How does one determine whether there is a meeting of the minds with regard to a Web page when it is unlikely that the alleged infringer and the creator have ever interacted at all? This factor must be considered in light of the environment, media, history (albeit a short one), and custom of the use. In this case, the Web has produced an environment which has not only allowed access, but encouraged it. This practice lends credence to the argument for finding an implied license.

c. The Impact of the DMCA

The DMCA addresses two issues related to copyright reproduction rights: technological measures and limited liability for ISPs. As amended by the DMCA, the copyright law now states that "[n]o person shall circumvent a technological measure that effectively controls access to a work protected under this title."[151] Furthermore, it is illegal to manufacture or sell any product, service, or device to circumvent such technological measures.[152] The DMCA defines "effectively controlling access" to mean that the measure requires application of information, a process, or a "treatment" with the permission or authority of the copyright holder in order to gain access to the protected work.[153] It appears that requiring a password and using software to ensure that the password is correct represents such a technological measure because it involves the application of information and a process to confirm that information. The DMCA does not require that the "technological measure" be impenetrable.[154] Of course, if the measure is impenetrable no infringement would be possible.[155]

The plain meaning of this language indicates that if the copyright holder employs technological measures to protect her work, then anyone who circumvents these measures to gain access to the work has committed copyright infringement. However, Congress embedded ambiguity into the Act by adding section 1201(c)(1) which states that "[n]othing in this section shall affect rights, remedies, limitations, or defenses to copyright infringement, including fair use,

148. *Id.* (quoting Herbert v. United States, 32 Fed. Cl. 293, 298 (1994)).

149. *Id.* (quoting N.A.D.A. Servs. Corp. v. Business Data of Va., Inc., 651 F. Supp. 44, 49 (E.D. Va. 1986)). The term "minds" in the phrase "meeting of the minds" refers to the copyright owner and user. *See id.*

150. *See id.* at 91.

151. Digital Millennium Copyright Act, Pub. L. No. 105-304, § 103(a), 112 Stat. 2860, 2863–64 (1998) (to be codified at 17 U.S.C. § 1201(a)(1)(A)).

152. *See id.* § 103(a), 112 Stat. at 2864 (to be codified at 17 U.S.C. § 1201(a)(2)).

153. *See id.* § 103(a), 112 Stat. at 2865 (to be codified at 17 U.S.C. § 1201(a)(3)(B)).

154. *See id.*

155. Being impenetrable means that it is impossible for a user to gain unauthorized access. No possibility of unauthorized access means no possibility of infringement.

under this title."[156] This language indicates that Congress intended the doctrine of fair use to apply to works accessed via the Web, but the drafters did not define what constitutes fair use within the realm of the Web. One general difficulty with this section is that it covers not only Internet access to protected works, but also access to works such as those produced by the motion picture and music industries, e.g., compact discs ("CDs") and digital versatile discs ("DVDs").[157] It appears that it is still left to the courts to interpret what constitutes "fair use" within the Web environment since Congress says the doctrine applies but does not define how it applies.[158]

An indication of the difficulty Congress faced in dealing with the technology issues is evidenced by the delay in DMCA enforcement; the prohibition on circumventing technological measures does not take effect until October 28, 2000.[159] During the two-year period following enactment of the DMCA, Congress enacted a procedure for the Librarian of Congress to determine if users of copyrighted works are likely to be affected adversely in their ability to make non-infringing uses of those works as a result of this legislation.[160] This safeguard indicates Congress is concerned that this legislation may go too far and actually diminish the doctrine of fair use by preventing permitted access.[161] This is ironic because section 1201(c)(1) explicitly states that the DMCA shall not affect fair use.[162] The DMCA's impact in this area remains to be seen.

These issues again raise the question regarding the appropriate balance between protecting creators' rights and allowing users access rights. Should a creator, through the use of technological measures, be able to prevent access that in a non-Web environment would constitute a fair use? Is this reduction in user's rights a reasonable price to pay to encourage creators to place their works on the Web, or is the price too high? Preventing fair uses of copyrighted Web materials likely will reduce access to works for educational and research endeavors. Arguably, this restriction may diminish the production of new creative works in the long run, thus defeating one of the purposes of copyright protection in the first place.[163] Surely this is not Congress' intention.[164] On the other hand, protecting

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156. Digital Millennium Copyright Act, Pub. L. No. 105-304, § 103(a), 112 Stat. 2860, 2865 (1998) (to be codified at 17 U.S.C. § 1201(c)(1)).

157. *See id.* § 103(a), 112 Stat. at 2864 (to be codified at 17 U.S.C. § 1201); 144 CONG. REC. S12730-01 (daily ed. Oct. 20, 1998) (statement of Sen. Leahy).

158. *See supra* note 157 and accompanying text.

159. *See* Digital Millennium Copyright Act, Pub. L. No. 105-304, § 103(a), 112 Stat. 2860, 2864 (1998) (to be codified at 17 U.S.C. § 1201(a)(1)(A)).

160 *See id.* (to be codified at 17 U.S.C. § 1201(a)(1)(C)).

161. This conclusion is based upon Congress granting the Librarian of Congress authority to determine whether non-infringing, fair uses are adversely affected by the new legislation. If Congress were certain that the new legislation would not diminish the doctrine of fair use, no need would exist for this type of determination after the enactment. Such a requirement indicates uncertainty.

162. *See* Digital Millennium Copyright Act, Pub. L. No. 105-304, § 103(a), 112 Stat. 2860, 2865 (1998) (to be codified at 17 U.S.C. § 1201(c)(1)).

163. One of the original goals of copyright law is to encourage creativity and production of original works by protecting it from unauthorized use. *See* 17 U.S.C. §§ 101 to 1101 (1994). *See also* U.S. CONST. art. I, § 8, cl. 8. However, if legislation prevents

technological access measures may simply recognize the inherent contract rights of copyright holders.[165] By requiring permission from the copyright holder via a technological access measure, the copyright holder is merely exercising her right to require the user to enter into a contract or obtain a license to gain access to the work.[166] Copyright holders have the exclusive right to control distribution of their work.[167] Contract law provides an effective method for exercising such control.

The DMCA also explicitly provides limitations on liability for ISPs regarding copyright infringement. Section 512(a) as amended by the DCMA states that an ISP is not liable for copyright infringement "by reason of the provider's transmitting, routing, or providing connections for, material through a system or network controlled or operated by or for the...[ISP], or by reason of the intermediate and transient storage of that material" in performing this service.[168] This limitation is conditioned on: (1) the transmission being at the request of a person or entity other than the ISP; (2) selection of the material transmitted by a person or entity other than the ISP; (3) selection of the recipient of the material transmitted by a person or entity other than the ISP; (4) the ISP not maintaining a copy accessible to anyone other than the requesting party; (5) the ISP not maintaining a copy longer than is reasonably required for the transmitting, routing, or provision of connections; and (6) the ISP transmitting material without modification.[169]

The plain meaning of section 512(a) insulates ISPs from claims of contributory copyright infringement resulting from aiding users in accessing material on the Web.[170] The questions remain whether the user violates copyright law by requesting access and whether the referring Web site violates copyright law by creating a link to the material. The DMCA does not address these issues.

Section 512(b) limits ISPs' liability regarding system caching, which involves storing a copy of material in the system as a result of a request.[171] Specifically, section 512(b)(1) provides that an ISP is not liable "for infringement of copyright by reason of the intermediate and temporary storage of material on a system or network controlled or operated by or for the service provider."[172]

This language protects ISPs from claims of direct infringement for storing copies, or equivalently reproductions, of the work on the ISP systems as a

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students and researchers from accessing creative works via the doctrine of fair use, then these individuals will have less information. This result likely will lead to fewer creative advances and scientific discoveries in the long run, because the students and researchers need access to prior work to build a foundation for new works. As a result, one of the original purposes of copyright law is defeated. *See supra* note 91 and accompanying text.

164. *See supra* notes 96 & 162 and accompanying text.

165. *See* Nimmer, *supra* note 7, at 829.

166. *See supra* notes 88–89 and accompanying text.

167. *See supra* notes 88–89 and accompanying text.

168. Digital Millennium Copyright Act, Pub. L. No. 105-304, § 202(a), 112 Stat. 2860, 2877-78 (1998) (to be codified at 17 U.S.C. § 512(a)).

169. *See id.* (to be codified at 17 U.S.C. §§ 512(a)(1)–(5)).

170. *See id.* § 202(a), 112 Stat. at 2877 (to be codified at 17 U.S.C. § 512(a)).

171. *See id.* § 202(a), 112 Stat. at 2878 (to be codified at 17 U.S.C. § 512(b)(1)).

172. *Id.*

result of a user's request. This protection is conditioned on: (1) the material having been made available on the Web by someone other than the ISP; (2) the material being transmitted at the direction of someone other than the ISP; and (3) the storage occurring as part of an automatic process for the purpose of making it available to the users.[173] Furthermore, the ISP must not modify the material, must comply with any requirements imposed by the person making the material available on the Web, must ensure that any access requirements, such as passwords for users, are met, and the ISP must disable access expeditiously if notified that the material was made available without authorization of the copyright holder.[174]

The DMCA does not address whether system caching on the user's computer system amounts to infringement. As discussed *supra*, the temporary storage in RAM on the user's computer is required to access the work and, therefore, should not be considered as infringement.[175] Based on this argument, required temporary storage by the ISP to allow this legal form of access should also be legal. As such, why did Congress enact a law to protect ISPs from claims of direct infringement——does this indicate that system caching is illegal? If so, then a new way of accessing the Web would be needed because every Web user is an infringer, unless an implied license exists. If an implied license is found, it appears that no ISP protection is needed because the implied license would extend to the ISP as another user. It is difficult to believe that this result was intended by Congress. It appears, then, that the intent must be to protect ISPs from unknowing infringement by caching infringing material at the request of a user.[176] However, no guidance is given as to whether the user is protected when her computer automatically caches the material.

Furthermore, is it reasonable to consider any form of caching as reproduction under the copyright laws if a link without protective measures is provided and a user merely follows this link? Arguably the Web site creating the link may be liable if the link is unauthorized. However, given the inherent requirement of links to create the Web environment, it seems reasonable that a link is unauthorized only if it either is explicitly unauthorized as provided by language on the Web site or is a deep link that circumvents entry pages, disclaimers, advertisements, etc., on the linked Web site.[177] Otherwise, Web site authors have no way of knowing that the link is unauthorized. In other words, through a combination of contract law (disclaimers, licenses, and prohibitions) and copyright law interpretation (impermissibility of certain deep links), it is possible to develop a reasonable interpretation as to when system caching indicates copyright infringement by the user. However, neither the DMCA nor court decisions have

173. *See id.*

174. *See id.* (to be codified at 17 U.S.C. § 512(b)(2)).

175. *See supra* note 52 and accompanying text.

176. *See* Digital Millennium Copyright Act, Pub. L. No. 105-304, § 202(a), 112 Stat. 2860, 2878 (to be codified at 17 U.S.C. §§ 512(b)(1)(A)–(C)).

177. The Web is based upon the creation of links. If Web site authors are not able to tell what they are authorized to link to, then it will be difficult, if not impossible, to perpetuate the Web environment. See *supra* notes 131–38 and accompanying text, for a discussion of the doctrine of fair use.

addressed this. Although many may agree that this form of interpretation of the law is reasonable, neither this interpretation, nor a substitute, has been declared the law.

Section 512(d) of the DMCA states that ISPs are not liable "for infringement of copyright by reason of the provider referring or linking users to an online location containing infringing material or infringing activity, by using information location tools, including a directory, index, reference, pointer, or hypertext link," provided that the ISPs are not aware of the infringing activity.[178] However, does using an information location tool that results in the user accessing a Web site with infringing material make the user an infringer? Clearly, the Web site author who created the Web site with the infringing material may be liable.[179] However, it does not seem reasonable that the user who merely follows links provided by a search engine, or similar index, should be liable for accessing this information. Again, the DMCA does not provide an answer, and again, the courts are left to interpret copyright law as written.

2. Derivative rights

Framing and IMG linking may infringe the derivative rights of copyright holders.

> A 'derivative work' is a work based upon one or more preexisting works, such as a translation, musical arrangement, dramatization, fictionalization, motion picture version, sound recording, art reproduction, abridgment, condensation, or any other form in which a work may be recast, transformed, or adapted. A work consisting of editorial revisions, annotations, elaborations, or other modifications which, as a whole, represent an original work of authorship, is a 'derivative work'.[180]

In both the case of framing and IMG linking, the copyrighted documents are displayed under circumstances different than those intended by the creator.[181] However, a difference exists between the impact of the two forms of linking.

When framing is used, the frame is often accompanied by work created by the referrer, other works accessed and framed together by the referrer, or a combination thereof.[182] In such cases, the portion accessed and displayed using framing may appear to be an integral portion of the referring page.[183] Framing arguably can be considered to "recast, transform or adapt" the referred Web page, thus constituting a derivative work.[184] Furthermore, framing is performed at the express direction of the Web site author in order to give the appearance that the

178. Digital Millennium Copyright Act, Pub. L. No. 105-304, § 202(a), 112 Stat. 2860, 2881 (1998) (to be codified at 17 U.S.C. § 512(d)).

179. *See supra* notes 90–91 and accompanying text.

180. 17 U.S.C. § 101 (1994).

181. *See* Echerou, *supra* note 9, at 4.

182. *See id.*

183. *See id.*

184. *Id.* (quoting Mirage Editions, Inc. v. Albuquerque A.R.T. Co., 856 F.2d 1341 (9th Cir. 1988)).

display is one integrated Web site.[185] The element of intent is present which may make it easier to find fault. Whether the Web site author is aware that this activity could infringe the copyright of the creator is another question. However, ignorance of the law is not a defense.[186]

IMG linking causes a Web image to be displayed and usually integrated into the referring Web page.[187] In most circumstances, this represents an adaptation and thus could be considered an infringement of the derivative rights of the copyright holder.[188] Images displayed via IMG linking can appear as if they are part of the referring Web site just as in the case of framing, so the same legal issues and arguments apply.[189]

In the case of images, other forms of infringement are also extremely common on the Web. Web site designers may see an image on another site that is just what they wanted or very similar to what they had in mind for their own Web site. Amateur and expert users alike often design their own sites by copying elements they see on other pages that they like. If the other Web site does not protect access to the image file, the Web site designer can download the image and either modify it or use it "as is" on her own Web site. Not only does this infringe upon derivative rights, but also it infringes upon other rights such as display rights.[190] Interestingly, as pointed out by Senator Dewine, "[p]eople who would never even consider shoplifting a CD or a videocassette from a store sometimes think the same rules about respecting private property should not apply in cyberspace."[191] Although a few copyright holders may not mind this use of their work, it seems that this type of use would not be condoned by a large number of "reasonable" creators and thus fails the standard test for finding it a fair use.

The DMCA exempts ISPs from liability for unknowingly aiding users in accessing Web sites that are infringing copyrights and in caching material from these sites. However, it does not discuss the use of frames, IMG links, or "stolen" images in Web sites created by non-ISP users. Furthermore, it does not address user access to Web sites that contain frames, IMG links, or "stolen" images. Logic suggests that the liability should lie with Web site creators rather than users, but again the law is silent and few analogies exist to prior technologies. Therefore, it is difficult to predict future court rulings concerning frames, IMG links, or "stolen" images.

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185. *See id.* at 3.

186. *See* United States v. International Minerals & Chem. Corp., 402 U.S. 558, 561 (1971) (stating the traditional rule is that ignorance of the law is no excuse and does not constitute a defense).

187. *See* Echerou, *supra* note 9, at 3.

188. *See id.* at 4.

189. *See supra* note 177 and accompanying text.

190. The copyright reproduction rights are likely also infringed if the image is not modified.

191. 144 CONG. REC. S12972-01 (daily ed. Oct. 21, 1998) (statement of Sen. Dewine). The term "cyberspace" is synonymous with the Internet and the Web.

3. Distribution Rights

A party may infringe a copyright holder's distribution rights by distributing copies without permission even if that party did not personally make the copies.[192] Therefore, all forms of linking, including HREF, IMG, and framing, may be considered a manner of distributing unauthorized copies of copyrighted Web documents.[193] The irony is that the copies actually may be made by the copyright holder's own server and sent to the user upon request, yet still be unauthorized copies.[194]

The DMCA protects ISPs from direct or contributory infringement claims for their role in infringing distribution as long as the ISPs are not aware of the infringement and prevent access in a timely manner when they are informed of infringement.[195] As with the other rights, the DMCA is silent about the potential liability of users and Web site authors with respect to distribution rights. The same arguments regarding the application of the fair use doctrine and the possibility of construing an implied license apply to distribution and reproduction rights.[196]

4. Display Rights

Placing, or posting, a document on the Web is considered a public display because members of the public have Internet access.[197] A copyright holder's exclusive right to display, or perform, her work is infringed when a user downloads a copy of the work and mails it to a group fitting within the definition of the "public," posts it to a public newsgroup, or places it on her own Web page.[198] Section 101 of the copyright law defines a public performance as follows:

> To perform or display a work "publicly" means—
>
> (1) to perform or display it at a place open to the public or at any place where a substantial number of persons outside of a normal circle of a family and its social acquaintances is gathered; or
>
> (2) to transmit or otherwise communicate a performance or display of the work to a place specified by clause (1) or to the public, by means of any device or process, whether the members of the public capable of receiving the performance or display receive it in the same place or in separate places and at the same time or at different times.[199]

IMG linking can result in the display of copyrighted documents and in most cases appears to be a violation of the copyright holder's exclusive right to

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192. *See* Echerou, *supra* note 9, at 4.
193. *See id.*
194. *See id.*
195. *See* Digital Millennium Copyright Act, Pub. L. No. 105-304, § 202(a), 112 Stat. 2860, 2877 (1998) (to be codified at 17 U.S.C. § 512).
196. *See supra* note 120 and accompanying text.
197. *See* Major, *supra* note 4, at 98.
198. *See id.*
199. 17 U.S.C. § 101 (1994).

control public display.[200] Framing violates this right as well. However, any argument that HREF linking violates the display rights of the copyright holder is much weaker. If the material is already on the Web without access protection, then it is already publicly displayed. The link may lead to different members of the public accessing the material, but it seems this subtle difference is insignificant.

Again, the DMCA protects ISPs' participation in displaying infringing material on the user's computer as long as the ISP is unaware that the material displayed is infringing. The DMCA does not specifically mention display rights. However, that is not necessary to protect ISPs since they are not directly displaying the material, but merely routing and transmitting the material resulting in its display.[201] Section 512 specifically protects this behavior.[202] The DMCA does not discuss the user's or Web site author's potential liability in this regard, but the same arguments for fair use and implied license apply as to reproduction and distribution rights.

B. Trademark Protection and Unfair Competition

Other legal issues arise as a result of linking Web resources. Although detailed discussion is beyond the scope of this Note, a brief description of trademark and unfair competition issues further puts into perspective the complexity of the Web environment and the resulting potential for legal claims. The Lanham Trademark Act forbids:

> use in commerce of any reproduction, counterfeit, copy, or colorable imitation of a registered mark in connection with the sale, offering for sale, distribution, or advertising of any goods or services on or in connection with which such use is likely to cause confusion or to cause mistake, or to deceive.[203]

Furthermore, the Lanham Act prohibits any person from using in commerce any mark that is likely to cause confusion, mistake or deception "as to the affiliation, connection, or association of such person with another person, or as to the origin, sponsorship, or approval of his or her goods, services, or commercial activities by another person."[204]

When Web pages incorporate trademarks directly or through IMG linking or framing, they may be violating trademark law.[205] Furthermore, unauthorized use of an icon in the form of a trademark held by a third party as a hyperlink icon may also violate trademark law.[206] If the links are used in such a way that they cause, or are likely to cause, confusion as to the source, sponsorship, or affiliation of the offerings of the referring Web page, then they are also in violation of trademark

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200. *See* Echerou, *supra* note 9, at 4.
201. *See* Digital Millennium Copyright Act, Pub. L. No. 105-304, § 202(a), 112 Stat. 2860, 2886 (1998) (to be codified at 17 U.S.C. § 512(k)(1)(A)).
202. *See id.* § 202(a), 112 Stat. at 2877 (to be codified at 17 U.S.C. § 512(a)).
203. 15 U.S.C. § 1114(1)(a) (1994).
204. 15 U.S.C. § 1125(a)(1) (1994).
205. *See* Echerou, *supra* note 9, at 4.
206. *See id.* at 4–5.

law. This issue arose recently in *TicketMaster v. Microsoft*.[207] Furthermore, meta-tag keywords often result in search engines creating links to particular Web sites.[208] Therefore, trademark uses that cause search engines to improperly associate Web pages with those trademarks raise intellectual property issues.[209]

To determine if the use of a trademark is defendable under the doctrine of fair use, different criteria are used than those for copyrights. Three factors are considered, including: (1) the manner in which the word or mark is being used; (2) whether the word or mark is being used in good faith; and (3) whether the use is likely to confuse consumers.[210]

Another legal issue concerning the Web involves claims of unfair competition. "[A]ny type of Web linking that has the possibility of affecting revenues, deflecting customers or diverting income, is likely to form the basis of an unfair competition claim."[211] Deep linking and framing, among other forms of linking, pose substantial opportunities for unscrupulous, or merely uninformed, Web site authors to cause unfair economic harm to others.

V. CONCLUSION

Fair use is not adequately defined in the context of the Web, court interpretations are not available, and the Digital Millennium Copyright Act has failed to address many of the issues related to copyright infringement.[212] Senator Leahy stated that "[t]he [DMCA] provides the protection necessary to encourage copyright owners to make their works available over the Internet."[213] Although the benefits of the Web may far outweigh the short-term concerns, it is not at all clear that the DMCA is sufficient to encourage creators to make their works available on the Web. At the very least, it is clear that the DMCA does not address many important issues that face Web users as the new millennium approaches.

The long-term concerns as Web technology advances likely will bring into question whether greater protection is warranted in spite of the benefits. Will that additional protection come via legislation, court rulings, or both? Or will the protection come from an entirely different area of the law, such as contract law? Likely the answer lies in a combination of all of these, just as in the past. No simple law, single case, or license agreement can answer such a complex set of issues. However, courts will become educated on the capabilities of the Web and its underlying technology so as to intelligently interpret the current laws, Congress will step in when an unacceptable result follows, and companies will protect themselves with disclaimers, contracts and licenses. As frustrating and slow as this

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207. *See id.* at 5 (citing TicketMaster Corp. v. Microsoft Corp., No. CV 97-3055 (C.D. Cal. filed Apr. 28, 1997) *available in* <http://www.ljx.com/LJXfiles/ticketmaster/complaint.html>). *See also supra* note 4 and accompanying text.

208. *See* Kuester & Nieves, *supra* note 1, at 247.

209. *See id.*

210. *See id.* at 258.

211. Echerou, *supra* note 9, at 5.

212. *See* discussion *supra* Part IV.

213. 144 CONG. REC. S12730-01 (daily ed. Oct. 20, 1998) (statement of Sen. Leahy).

process may appear, it is the essence of the American legal system. The main difference now seems to be the speed of the advances. Society's only hope is that the legal system can keep pace.