

Are You Experienced?

The Copyright Implications of Web Site Modification Technology

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Recently, several new Internet technologies that modify, or allow users to modify, the way Web sites are experienced have emerged. In many cases, these technologies give end users or third parties a greater degree of control over Web sites than the owners of the sites intended. Web site owners often object to the use of experience-modifying technologies, and have advanced a number of legal theories to support their claims. Among these theories is the contention that employing technologies to modify how a user experiences a Web site constitutes copyright infringement. This Comment examines five types of Web site modification technology—linking and framing, comparison shopping applications, commentary Web sites and software, Web site customization tools, and ad stripping software—and argues that their use does not infringe Web site owners' exclusive rights under existing copyright law. This Comment also considers whether employing experience-modifying technologies is a fair use, and discusses contributory and vicarious infringement. Finally, this Comment argues that imposing liability for the use of Web site modification technologies is inconsistent with the underlying goal of copyright law: to promote learning and knowledge.

INTRODUCTION

Until fairly recently, most people browsing the World Wide Web experienced the Web sites¹ they visited in more or less the way that the

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1. A Web site is a compilation of related Web pages and additional files located on the same

owners of the sites intended. The process was straightforward: a Web publisher placed files containing HTML code and images on a Web server, and users downloaded and viewed these files using Web browser software. The browser software interpreted and displayed Web pages in predictable ways.

Of course, the ubiquitous practices of "linking" and "framing," both of which allow one Web site to provide access to other sites,² gave users some degree of control even in the early days of the Web. Recently, however, several new technologies that modify, or allow users to modify, the way a Web site is experienced have emerged. Among these new experience-modifying technologies are "comparison-shopping" applications,³ which generate pop-up screens to alert online shoppers to better deals available at competitors' Web sites. "Commentary" Web sites and software that either comment on, or allow users to comment on, the content contained in other Web sites are also becoming commonplace.⁴ Other examples are Web sites and applications that allow users to customize third-party Web sites either by picking and choosing from a Web site's content or by "overlaying" a Web site with additional links and information.⁵ Finally, "ad-stripping" software removes a Web site's banner ads and, in some cases, replaces them with different ads.⁶

As is demonstrated by the large amount of literature devoted to the analysis of linking and framing,⁷ Web site modification technology

server, compiled under a single domain name and owned by an individual, company, or organization. Webopedia Online Dictionary and Search Engine, at <http://www.webopedia.com> (last visited Nov. 17, 2000) [hereinafter Webopedia].

2. David L. Hayes, *Advanced Copyright Issues on the Internet*, at http://www.fenwick.com/pub/ip_pubs/Advanced_Copyright_2000/advanced_copyright_2000.htm (last visited Jan. 22, 2001).

3. Evenbetter Express is one such application. See StepWare, Inc., at <http://www.stepware.com/evenbetter> (last visited Jan. 22, 2001).

4. For example, a service called Third Voice offers an application that lets subscribers add their commentary to other people's Web sites in the form of an electronic "post-it" note visible to other Third Voice subscribers. Ben Dolven, *Power to the People*, FAR E. ECON. REV. (Nov. 18, 1999), at http://www.feer.com/9911_18/p52.html.

5. CallTheShots.com is a service that lets visitors "build their own view of [favorite Web sites] and see only what they want to see." *News and Events*, CallTheShots.com, at <http://www.calltheshots.com/news.html> (last visited Nov. 17, 2000). Flyswat is a service that overlays a Web page with hyperlinks that provide information entirely independent of the material that came from the original Web site. Paul Festa, *Search Tools Leave Web Out of Sight*, CNET News (January 12, 2000), at <http://news.cnet.com/news/0-1005-200-1520762.html>.

6. Ryan Monceaux, *The Big News: Showker's Revenge*, AdBanter.com, at http://www.adbanter.com/big_news/big_news_003.shtml (last visited Jan. 22, 2001).

7. See, e.g., Lydia Pallas Loren, *The Changing Nature of Derivative Works in the Face of New Technologies*, 4 J. SMALL & EMERGING BUS. L. 57 (2000); Allison Roarty, *Link Liability: The Argument for Inline Links and Frames as Infringements of the Copyright Display Right*, 68 FORDHAM L. REV. 1011 (1999); Joseph A. Tontodonato, *Deep-Linking: Sure You Can Exploit My Trademark, Weaken Its Strength, and Make Yourself Money While Doing It*, 22 T. JEFFERSON L. REV. 201 (2000); Nicos L. Tsilas, *Minimizing Potential Liability Associated With Linking and Framing on the World Wide Web*, 8 COMM.LAW CONSP. 85 (2000).

presents intriguing, but unanswered, legal questions. Does framing create derivative works that infringe the copyright in the framed Web site?⁸ Might comparison-shopping applications cause consumer confusion in violation of federal trademark law?⁹ Does ad stripping constitute a tort such as misappropriation of intangible trade value,¹⁰ interference with contractual relations,¹¹ or trespass to chattels?¹² These are just a few of the many unanswered questions that will soon confront courts and practitioners as they attempt to apply existing law to new Internet technologies and business practices.

This Comment does not attempt to answer most of these questions, but rather concentrates on issues implicating copyright law. The Comment argues that employing technologies that modify how a user experiences a Web page does not typically infringe a Web site owner's exclusive rights under copyright law. Of course, the analysis depends to some extent on the specifics of the technologies under consideration—what they do and how they work. Thus, Part I describes in detail the five technologies analyzed in this Comment: linking and framing, comparison shopping and other intervention software,¹³ commentary sites and applications, Web site overlay and customization technology, and ad stripping. Part II explains that, due to the way these technologies function, they do not infringe the reproduction,¹⁴ the display,¹⁵ or the derivative work right.¹⁶ Part II also argues that imposing liability for the use of these technologies is inconsistent with the underlying goal of copyright law: to promote learning and knowledge. Finally, Part III discusses the fair use defense,¹⁷ and Part IV addresses vicarious and contributory infringement.¹⁸

8. The Copyright Act gives copyright holders the exclusive right to create derivative works. 17 U.S.C. § 106(2) (1994).

9. Federal law prohibits any use of a trademark that falsely suggests a connection with another person. 15 U.S.C. § 1125(a) (1994).

10. See RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 38 (1995) (describing liability for appropriation of trade values).

11. See RESTATEMENT (SECOND) OF TORTS § 766 (1979) (describing liability for intentional interference with contractual relations).

12. The argument that accessing a Web site without authorization may constitute trespass to chattels recently met with some success in *eBay, Inc. v. Bidder's Edge, Inc.* 100 F. Supp. 2d 1058, 1069-73 (N.D. Cal. 2000).

13. Comparison-shopping-type applications have been referred to as "intervention" software. Hayes, *supra* note 2.

14. See 17 U.S.C. § 106(1) (1994) (granting copyright owner the exclusive right to reproduce the copyrighted work).

15. See *id.* § 106(5) (granting copyright owner the exclusive right to display the copyrighted work publicly).

16. See *id.* § 106(2) (granting copyright owner the exclusive right to prepare derivative works based upon the copyrighted work).

17. See *id.* § 107 (defining "fair use").

18. The Copyright Act does not expressly create liability for infringing acts committed by another, but the Supreme Court has recognized the existence of both vicarious and contributory

I

THE TECHNOLOGIES

A. Linking and Framing

Linking and framing are two techniques that Web sites use to provide access to other sites. A "link" is an electronic address embedded in a Web site's HTML code¹⁹ that "points" to another location on the World Wide Web.²⁰ One standard type of link, often referred to as an "out link," takes a person browsing a Web page²¹ to another site when the user activates the link.²² Out links appear to the user as highlighted text or graphics, such as the "banner ads"²³ that appear on most Web sites. When a user activates an out link by clicking on it, the user's Web browser²⁴ reads the "address"²⁵ embedded in the HTML code, finds the location on the Internet that matches that address, and requests a copy of the Web page or other file. The computer hosting²⁶ the linked page then sends a copy of the requested file to the user's browser, which displays it on the user's screen.²⁷ One of the most controversial practices involving out links is known as "deep linking." Deep linking refers to linking to an internal or subsidiary page of a Web site, several levels down from the site's home page.²⁸ A user who clicks on a deep link circumvents, possibly unwittingly, the linked site's home page and any intervening pages.²⁹ Web site owners often object to deep linking because it causes users to miss advertising that they would have seen had they navigated the site as the owner intended.³⁰

copyright infringement. *See Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 434-35 (1984).

19. "HTML" (Hyper Text Markup Language) is the computer language used to create documents on the World Wide Web. HTML defines the structure and layout of a Web document by using a variety of tags and attributes. Webopedia, *supra* note 1.

20. Hayes, *supra* note 2.

21. A Web page is a document located on the World Wide Web and is identified by a unique Internet address. Webopedia, *supra* note 1.

22. Hayes, *supra* note 2.

23. For a description of banner ads, see *infra* text accompanying note 61.

24. A Web browser is a software application used to locate and display Web pages. The two most popular browsers are Microsoft Internet Explorer and Netscape Navigator. Webopedia, *supra* note 1.

25. Each Web page on the World Wide Web is identified by a Uniform Resource Locator (URL). Webopedia, *supra* note 1. For example, <http://www.law.berkeley.edu/library/library.html> is the URL, or address, of the Boalt Hall Law Library's home page.

26. A "host" is a computer system that is accessed by a user working at a remote location. Typically, the term is used when there are two computer systems connected by modems and telephone lines. The system that contains the data is called the host, while the computer at which the user sits is called the remote terminal. Webopedia, *supra* note 1.

27. Tsilas, *supra* note 7, at 85-86.

28. The "home page" is the main page of a Web site, and typically serves as an index or table of contents to other documents stored at the site. Webopedia, *supra* note 1.

29. Tsilas, *supra* note 7, at 86.

30. Tontodonato, *supra* note 7, at 201.

Another type of link, called an "in-line link," is a link to a document, image, audio clip, or other file located on another Web site that automatically pulls the file from the linked Web page and displays it on the linking Web page.³¹ Thus, rather than being transported from one Web site to another, a user looking at a Web page containing in-line links will see content taken from linked Web sites. Displaying material from an in-line link in a separate window or "frame"³² within the linking site is known as framing. A framing Web site may display content from a number of framed Web sites simultaneously in separate windows, next to, or surrounded by, its own content. For this reason, framing Web sites have been pejoratively referred to as "para-sites."³³

Framing and linking have received significant attention from both legal commentators and courts, especially relative to the other types of experience-modifying technology. The existing commentary is helpful, and contributes much to the discussion that follows. The cases addressing framing and linking are less useful, because they were decided under foreign law that differs from U.S. copyright law,³⁴ were settled without a decision,³⁵ or obtained only a cursory opinion.³⁶

31. Hayes, *supra* note 2.

32. Both Netscape Navigator and Microsoft Internet Explorer are capable of displaying material in "frames," which are multiple, independently scrollable panels on a single screen, each of which can contain many elements including text, hypertext, graphics, scrollable regions, and other frames. Hayes, *supra* note 2.

33. Hayes, *supra* note 2.

34. See *The Shetland Times, Ltd. v. Wills*, Sess. Cas. Oct. 24, 1996 (Scot.). The court in *Shetland Times* found that the plaintiffs had made a prima facie showing that defendant's use of plaintiff's newspaper headlines on their Web site constituted a violation of United Kingdom copyright law. However, the court rendered its decision without "detailed technical information . . . in relation to the electronic mechanisms involved," *id.*, and depended on a statutory provision for which there is no U.S. corollary. Ian C. Ballon, *Using Trademarks to Drive Traffic to Websites and Other E-Commerce Law Issues*, 590 PLI/PAT 111, 196 (2000). Under U.S. copyright law, individual newspaper headlines would probably not be copyrightable. See 37 C.F.R. § 202.1(a) (2000) (stating that "words and short phrases" are not subject to copyright).

35. See *Washington Post Co. v. TotalNews, Inc.*, No. 97 Civ. 1190 (S.D.N.Y. filed Feb. 20, 1997). Defendant TotalNews operated a "para-site" that allowed a user to display up to twelve other news sites in frames. Plaintiff alleged misappropriation of news, federal trademark dilution and infringement, and tortious interference with contract in addition to infringement of unspecified "exclusive rights under 17 U.S.C. § 106." The parties settled with TotalNews, agreeing to stop framing plaintiff's Web sites. See also *Ticketmaster Corp. v. Microsoft Corp.*, No. 97-3055 (C.D. Cal. filed Apr. 28, 1997). In *Ticketmaster*, plaintiff alleged, among other things, that defendant infringed its reproduction, distribution, and display rights when it deep linked to plaintiff's ticket site. The case settled with Ticketmaster permitting Microsoft to link to its site, but not through links that bypassed Ticketmaster's home page.

36. See *Futuredontics, Inc. v. Applied Anagramics, Inc.*, No. SV 97-6991, U.S. Dist. LEXIS 2265 (C.D. Cal. Jan. 30, 1998). In *Futuredontics*, plaintiff alleged that defendant's framing of plaintiff's Web site infringed its derivative work right. Defendant moved to dismiss the claim, arguing that its frame should be viewed as merely a "lens" that allowed users to view the information that the plaintiff itself placed on the Web. The court denied both plaintiff's motion for a preliminary injunction and defendant's motion to dismiss.

B. Intervention Software

Intervention software is so called because it intervenes in the flow of screens presented by a Web site to provide the user additional choices.³⁷ Comparison-shopping applications are the most common type of intervention software. These applications “look over your shoulder” while you shop online to make sure you are getting the best deal available:

There you are, browsing through an online bookstore—say, Amazon.com. You spot a volume that looks interesting. You’re tempted to click the shopping-cart icon to order the book, but first you wait for a clever piece of software to do its thing. Does it ever.

A little window pops up on your screen. In the background the software has been checking prices, availability and delivery time at other online booksellers, and it’s found a better deal for the book somewhere else. Are you sure you want to buy from Amazon?³⁸

Unlike the more traditional comparison-shopping Web sites, which check vendor sites and return the results to users on a separate Web page, the most recent batch of comparison-shopping applications³⁹ reside on a user’s computer desktop. Using one of these shopping agents becomes almost second nature because “it just appears when the user visits a supported site.”⁴⁰

Comparison-shopping applications have been labeled “subversive” because, in at least some cases, they operate without any agreement or cooperation from the vendors whose sites they search.⁴¹ The vendor Web sites are not modified to give special information to the shopping agent. Rather, the agent is simply programmed to be able to search a particular site: “The core technology is similar to sending a person to a store and having him come back to tell you the prices.”⁴² Thus, in the words of one commentator, “For a retailer like Amazon, which doesn’t have the lowest prices, [comparison-shopping applications] are bad news.”⁴³ Many

37. Hayes, *supra* note 2.

38. Dan Gillmor, *Subversive Software at Your Service*, SAN JOSE MERCURY NEWS (Oct. 17, 1999), available at <http://www.mercurycenter.com/svtech/news/indepth/docs/dg101699.htm>.

39. Examples of comparison-shopping applications include Evenbetter Express, *supra* note 3; the RU Sure Shopping Agent, at <http://www.rusure.com> (last visited Nov. 17, 2000); Click the Button, at <http://www.clickthebutton.com> (last visited Nov. 17, 2000); and the iChoose Desktop Agent, at <http://www.ichoose.com> (last visited Nov. 17, 2000).

40. D. Ian Hopper, *Desktops Now Have the Power to Comparison-Shop*, CNN.com (October 18, 1999), at <http://www.cnn.com/TECH/computing/9910/18/r.u.sure/index.html>.

41. Gillmor, *supra* note 38. However, some comparison-shopping services also operate in conjunction with specific online retailers to steer customers to their partner sites. Doug Bedell, *The Future of Web Shopping Bots*, DougBedell.com, at <http://www.dougbedell.com/shoppingbots.html> (last visited Nov. 17, 2000).

42. Hopper, *supra* note 40 (quoting Oded Vardi, who handles business development and marketing for R U Sure).

43. Gillmor, *supra* note 38.

comparison-shopping applications are still relatively unsophisticated, but it is only a matter of time before these online shopping agents will simply wait for the user to get to the checkout screen, then tally up the entire order, query other online retailers, and come back to the user with a better offer for the entire purchase.⁴⁴

C. Commentary Software and Web Sites

Commentary software and Web sites comment on, or allow users to comment on, other Web sites. For example, a nonprofit organization called McSpotlight maintains a Web site that criticizes McDonald's Corporation for, among other things, targeting children in its marketing, harming the environment through its food production and distribution, and producing food with little nutritional value.⁴⁵ Such criticisms may not be particularly novel, but McSpotlight's method is. The McSpotlight site displays a right-hand frame in which the entire McDonald's home page appears. In a left hand frame appears lengthy commentary "deconstruct[ing] McDonald's glossy and expensive image" by pointing out particular examples of the "sophisticated propaganda" contained on the McDonald's Web site.⁴⁶ The user therefore sees a single Web page, one half of which consists of McSpotlight's commentary, while the other half simply reproduces the McDonald's Web site.

While the McSpotlight site focuses just on the McDonald's Web site, other applications, like Third Voice, allow individual users to attach their comments directly to any site on the Web.⁴⁷ In its original incarnation, Third Voice allowed users to leave their comments on a Web page in the form of electronic "post-it notes"⁴⁸ visible to other Web surfers also running the software.⁴⁹ Small, triangular markers, superimposed on the Web page, indicate the presence of Third Voice annotations. Clicking on these markers opens a window displaying the user-written comments.⁵⁰ On popular sites such as CNN.com, there may be literally thousands of markers that clutter the page, rendering it almost unreadable.⁵¹ Such clutter has

44. *Id.*

45. See McSpotlight Tour Itineraries, at <http://www.mcspotlight.org/tours/index.html> (last visited Jan. 23, 2001).

46. *Id.*

47. Press Release, ThirdVoice.com, Third Voice 2000 Turns Every Word Into an Instant Connection to Web's Top Content, Commerce, Communities (April 5, 2000), at http://thirdvoice.com/about/040500a_release.htm.

48. Doug Bedell, *Web Graffiti: Software Lets Surfers Post Sticky Notes on Others' Sites, Angering Designers*, DALLAS MORNING NEWS, Nov. 11, 1999, available at <http://www.dougbedell.com/webgraffiti.html>.

49. Those not running the software cannot see the notes. To them the Web page will appear unaltered. *Id.*

50. *Id.*

51. *Id.*

led some Web designers to brand Third Voice notes as "Web graffiti," and has even led to a "Say No to Third Voice" campaign.⁵² Perhaps due to this negative reaction, the most recent version of Third Voice displays user comments in a separate window on the right side of the browser rather than superimposed over the target Web page.⁵³

D. Overlay and Web Site Customization Software

Numerous applications allow users to alter how they view Web pages. One genre of application overlays a Web page with hyperlinks to additional information. One example, "Flyswat," superimposes a Web page with "flycons," yellowish-green underlines beneath the original text.⁵⁴ When a user clicks on a flycon, a pop-up window appears containing links to related information.⁵⁵ For example, a flycon underlining the word "Microsoft" in a Web page might provide links to other pages containing news on Microsoft, Microsoft stock quotes, or Microsoft products.⁵⁶ Users can customize the program to display these underlines all the time or only when they pass the mouse over a particular word.

Another way users can alter how they view Web pages is by using Web site customization software such as "Call the Shots."⁵⁷ Call the Shots allows a user to create condensed versions of third-party Web sites, or to pick and choose elements of various Web sites to create a personal combination page. The user logs on to the Call the Shots Web site and, in a search screen, enters the URL of the target site he wishes to alter. The target site then appears in its unaltered form, in a frame within the Call the Shots search screen. Next, the program decomposes the target site into its constituent blocks. At this point, the user selects blocks to appear in the customized version of the Web site. By repeating the process with other Web sites, users can add blocks from those sites to form a "ComboPage."⁵⁸ All blocks appear within their own frame in the ComboPage, and each frame is labeled in the upper right-hand corner with the original source from which its blocks came.⁵⁹ Users may also make their ComboPages

52. See *Say No to Third Voice*, at <http://www.saynotothirdvoice.com> (last visited Jan. 23, 2001).

53. See Julie Landry, *Head Count: From Chewy Granola Bars to Web Sticky Notes*, Red Herring.com (Mar. 27, 2000), at <http://www.redherring.com/companies/2000/0327/com-headcount032700.html>.

54. Festa, *supra* note 5.

55. Hayes, *supra* note 2.

56. See *Flyswat Home Page*, FlySwat.com, at http://flyswat.com/how_work.html (last visited Nov. 17, 2000).

57. Rafe Needleman, *Parting Out*, Red Herring.com (Nov. 10, 1999), at <http://redherring.com/cod/111099.html>.

58. Hayes, *supra* note 2.

59. *Id.*

available to others, and Call the Shots even rates its users' customized pages for popularity.⁶⁰

E. Ad Stripping

Many Web sites generate revenue through the use of banner ads. These ads consist of text and graphics placed on a Web site in the form of a banner, usually appearing across the top, bottom, or sides of a page.⁶¹ Each banner ad is really an out link that takes a user who clicks on it to the advertised Web site. Generally, banner ads are not generated by the individual Web sites on which they appear. Instead, Internet advertising networks or banner exchange groups contract with Web site owners to place ads on their sites. These ad networks then charge advertisers for ad placement. The advertisers are usually charged per "impression,"⁶² while Web site owners may be paid either based on impressions or on how many times users actually click on the ads.⁶³ The Web site owner who wishes to sell banner ad space merely places a small piece of HTML code on her Web page, and this code automatically pulls a banner ad from the ad network's server each time the page is downloaded by a user.⁶⁴ The Web site owner generally neither controls nor is even aware of the specific ad that the ad server places on her site at any given time.⁶⁵

Online ads can be as annoying to Web browsers as television ads are to TV viewers. Consequently, clever programmers have developed software that "strips" the banner ads from Web pages.⁶⁶ These programs allow users to view Web pages without any ads at all. Techniques have also been developed to replace one banner ad with another. For example, one ad-stripping system inserts ads specifically tailored to individual consumers' interests and location in place of the original banners.⁶⁷ Another ad-stripping service has developed a way to take the ads out and replace them with ads sold to local businesses.⁶⁸ Both services utilize a "strip and re-

60. *Id.*

61. See *Internet.com Media Kit*, Internet.com, at <http://www.Internet.com/mediakit/adoptions.html> (last visited Jan. 23, 2001) (describing banner-ad specifications).

62. An "impression" is the appearance of an ad on a Web page. Theoretically, each impression represents a user viewing the ad. However, in many cases an ad is downloaded and registers as an impression without the user actually seeing it (because, for example, she does not scroll down far enough). Webopedia, *supra* note 1.

63. See AdClub Network, at <http://www.adclub.net> (last visited Jan. 23, 2001).

64. See *id.*

65. Monceaux, *supra* note 6.

66. Doug Bedell, *With the Right Software, Online Ads Go "Poof!"* DALLAS MORNING NEWS, Jan. 12, 1999, available at <http://www.dougbedell.com/adstrippers1.html>. Examples of ad-stripping programs include AdsOff!, at <http://www.intercantech.com>, and InterMute, at <http://www.intermute.com>.

67. Ryan Monceaux, *The Big News: A Tale of Two Feds*, AdBanter.com, at http://www.adbanter.com/big_news/big_news_004.shtml (last visited Jan. 22, 2001).

68. Monceaux, *supra* note 6.

place" technology that depends on the ability to distinguish third-party advertising on a Web page from the original Web site content.⁶⁹ With this technology, the user sees the Web page as usual, except that the banner ads are replaced with ads supplied by the service.

The remainder of this Comment examines the implications of copyright law for ad stripping and the other Web site modification technologies. The next Part addresses whether the use of these technologies constitutes copyright infringement.

II COPYRIGHT INFRINGEMENT

The Copyright Act grants copyright owners certain exclusive rights.⁷⁰ Among the exclusive rights relevant to Web site modification technologies are the rights to reproduce the copyrighted work in copies, to prepare derivative works based on the copyrighted work, and to display the copyrighted work in public.⁷¹ Violation of any of these rights necessarily infringes an owner's copyright. This Part examines whether the various technologies discussed in Part I might infringe these exclusive rights, as well as whether imposing liability for such infringement is consistent with the underlying goal of copyright law. The final two Parts consider the possibility that a potential infringer might be able to invoke a fair use defense,⁷² and the importance of contributory and vicarious liability, respectively.⁷³

A. The Reproduction and Public Display Rights

The Copyright Act gives copyright owners the exclusive right to reproduce in copies and publicly display the copyrighted work.⁷⁴ This Part first examines in general terms whether transmitting data through the Internet creates "copies" or constitutes a "public display" within the meaning of the Copyright Act. It then applies the results of this inquiry to the technologies under consideration to determine whether any of them infringe the reproduction or display rights.

69. *Id.*

70. 17 U.S.C. § 501(a) (1994).

71. *Id.* § 106(1), (2), (5).

72. *See id.* § 107.

73. *See Gershwin Publ'g Corp. v. Columbia Artists Mgmt., Inc.*, 443 F.2d 1159, 1162 (2d Cir. 1971) ("[O]ne who, with knowledge of the infringing activity, induces, causes or materially contributes to the infringing conduct of another, may be held liable as a 'contributory' infringer."); *Religious Tech. Ctr. v. Netcom On-Line Communication Servs.*, 907 F. Supp. 1361, 1375 (N.D. Cal. 1995) ("A defendant is liable for vicarious liability for the actions of a primary infringer where the defendant (1) has the right and ability to control the infringer's acts and (2) receives a direct financial benefit from the infringement.").

74. 17 U.S.C. § 106(1), (5) (1994).

1. "Copies" on the Internet

The Copyright Act defines "copies" as "material objects . . . in which a work is fixed . . . and from which the work can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device."⁷⁵ Certainly transmitting a Web page or other copyrighted work over the Internet reproduces the work in some sense. The question, however, is whether the copies of a work that are created when a work is sent from one computer to another over the Internet qualify as "copies" within the statutory definition. Answering this question requires a brief discussion of how data are transmitted over the Internet.

Information is transmitted over the Internet using a technique called "packet switching."⁷⁶ Data traveling through the network are broken up into packets, the packets are transmitted at different times and by different routes, and the data are then reassembled by the computer at the receiving end.⁷⁷ As the packets travel through the network, each router computer makes a temporary RAM copy of the particular packet it is transmitting, but a complete RAM copy of the transmitted data is created only at the ultimate destination computer.⁷⁸ Given these facts, the statutory language raises two issues with regard to whether transmitted data in RAM qualify as "copies."

First, are these packets, sometimes as small as a single byte of data, "copies" of the transmitted work? Does the answer depend on whether a large portion of the packets making up the whole pass through a single computer's RAM? No court has yet answered these questions, but the White Paper published by the Working Group on Intellectual Property Rights of President Clinton's Information Infrastructure Task Force seems to suggest that interim partial copies of a work created in RAM during transmission may not themselves constitute "fixed" copies: "A transmission, in and of itself, is not a fixation. While a transmission may result in a fixation, a work is not fixed by virtue of the transmission alone."⁷⁹

A second question is whether a copy of a work, even a complete final copy, stored in RAM is sufficiently "fixed" to qualify as a "copy" for copyright purposes.⁸⁰ A copy of a work stored in RAM disappears when the

75. *Id.* § 101.

76. Hayes, *supra* note 2.

77. *Id.*

78. *Id.*

79. INFORMATION INFRASTRUCTURE TASK FORCE, INTELLECTUAL PROPERTY AND THE NATIONAL INFORMATION INFRASTRUCTURE: THE REPORT OF THE WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS 27 (1995).

80. According to the statute, "A work is 'fixed' in a tangible medium of expression when its embodiment in a copy . . . is sufficiently permanent or stable to permit it to be perceived, reproduced, or otherwise communicated for a period of more than transitory duration." 17 U.S.C. § 101 (1994).

computer is turned off. Moreover, most RAM is "dynamic," meaning that even while the computer is on, the data must be continually refreshed in order to remain readable.⁸¹ Thus, a RAM copy could be considered evanescent or transient, and therefore not a material object in which a work is fixed.⁸² This interpretation, however, may not comport with the intent behind section 117 of the Copyright Act, which provides that "it is not an infringement for the owner of a copy of a computer program to make . . . another copy . . . as an essential step in the utilization of the computer program."⁸³ Although this provision is not directly applicable to Web browsing, it does imply that RAM copies, which are presumably the "essential" copies Congress had in mind, fall within the scope of the Copyright Act.

Several cases, moreover, have held that RAM copies are "copies" for copyright purposes. In *MAI Systems Corp. v. Peak Computer, Inc.*,⁸⁴ the court held that loading an operating system into RAM for maintenance by an unlicensed third-party maintenance organization created an illegal "copy" of the program in RAM.⁸⁵ The court reasoned that the copy of the program was stored in RAM for at least a few minutes, and was "sufficiently permanent or stable to permit it to be perceived, reproduced, or otherwise communicated for a period of more than transitory duration."⁸⁶ More recently, in *Intellectual Reserve, Inc. v. Utah Lighthouse Ministry, Inc.*,⁸⁷ a court considered whether browsing the Internet involves the creation of copies that might infringe a copyright owner's rights. The court cited *MAI* to hold:

When a person browses a Web site, and by so doing displays [copyrighted material], a copy of the [copyrighted material] is made in the computer's random access memory (RAM), to permit viewing of the material. And in making a copy, even a temporary one, the person who browsed infringes the copyright.⁸⁸

Therefore, the first preliminary question—whether any of the interim or final copies of a work that are created as data are transmitted through the Internet qualify as "copies" within the meaning of the Copyright Act—does not have a definitive answer. However, *Intellectual Reserve, Inc.* and *MAI Systems Corp.* may indicate a growing consensus that at least the

81. Hayes, *supra* note 2.

82. Consider the following language from the legislative history of the Copyright Act of 1976: "[T]he definition of 'fixation' would exclude from the concept purely evanescent or transient reproductions such as those projected briefly on a screen, shown electronically on a television or other cathode ray tube, or captured momentarily in the 'memory' of a computer." H.R. REP. NO. 94-1476, at 53 (1976), reprinted in 1976 U.S.C.C.A.N. 5659, 5666.

83. 17 U.S.C. § 117(a)(1) (Supp. IV 1998).

84. 991 F.2d 511 (9th Cir. 1993).

85. *Id.* at 518.

86. *Id.*

87. 75 F. Supp. 2d 1290 (D. Utah 1999).

88. *Id.* at 1428.

final, complete copy of a work that is created in the RAM of a user's computer when she browses a Web page is a "copy" for copyright purposes.⁸⁹ Perhaps, then, using the technologies under consideration to modify a Web site creates an infringing copy of the underlying site. Before reaching that issue, however, the following Section examines a second preliminary question: whether transmitting data over the Internet can constitute the "public display" of a work.

2. "Public Display" on the Internet

To display a work is "to show a copy of it" directly or by means of "a film, slide, television image, or any other device or process."⁹⁰ To display a work publicly means: (1) to perform or display a work 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 a work to the public by means of any device or process, whether members of the public receive it in the same place or at separate places and at the same time or at different times.⁹¹ This rather broad language suggests that displaying digital images on the Web might constitute a "public display" within the meaning of the Copyright Act. Indeed, a number of cases have come to this conclusion.

In *Playboy Enterprises v. Webbworld, Inc.*,⁹² the court found direct infringement of Playboy's reproduction, distribution, and display rights by an adult Web site that stored several of Playboy's copyrighted images on its servers and displayed them to its subscribers. The court noted that "[t]he concept of display is broad," and that "[t]he display right precludes unauthorized transmission of the display from one place to another . . . by a computer system."⁹³ Similarly, in *Playboy Enterprises v. Frena*,⁹⁴ the court held that making photographs available on a bulletin board service (BBS)⁹⁵ was a public display, even though the display was limited to subscribers, and subscribers viewed the photographs only after downloading them from the BBS. And in *Marobie-FL, Inc. v. National Ass'n of Fire*

89. *But cf.* DSC Communications Corp. v. DGI Tech., Inc., 81 F.3d 597, 600-01 (5th Cir. 1996) (acknowledging that copying for purposes of copyright law occurs when a user loads a computer program into RAM, but holding that an infringement suit based on creating RAM copies may constitute copyright misuse); Tricom, Inc. v. Elec. Data Sys. Corp., 902 F. Supp. 741, 745 (E.D. Mich. 1995) (same). There has also been significant academic criticism of the *MAI* rule. *E.g.*, Jessica Litman, *The Exclusive Right to Read*, 13 Cardozo Arts & Ent. L.J. 29, 41-43 (1994).

90. 17 U.S.C. § 101 (1994).

91. *Id.*

92. 991 F. Supp. 543 (N.D. Tex. 1997), *aff'd*, 168 F.3d 486 (5th Cir. 1999).

93. *Id.* at 552 (quoting *Playboy Enters. v. Frena*, 839 F. Supp. 1552, 1556-57 (M.D. Fla. 1993)).

94. 839 F. Supp. 1552 (M.D. Fla. 1993).

95. A bulletin board service, or BBS, is an electronic message center that one accesses by modem to post or download messages or electronic files. Webopedia, *supra* note 1.

Equipment Distributors,⁹⁶ the court ruled that placement of plaintiff's copyrighted clip art files on defendant's Web page infringed the right of public display. The court concluded that making the clip art files available for downloading was sufficient for liability because "once the files were uploaded [onto the Web server], they were available for downloading by Internet users and [the] server transmitted the files to some Internet users when requested."⁹⁷

These cases suggest that, at least sometimes, transmitting images over the Web constitutes a public display. Furthermore, as discussed above, the final RAM copy of a work created in a user's computer when she browses a Web page may constitute a "copy" for copyright purposes. Having determined that using the Internet to transmit data may in some circumstances infringe either the reproduction or display right, it is now possible to examine what this means for Web site modification technologies. For example, does framing a Web page create an infringing copy of that page? Does it constitute an unauthorized public display of the page? Does viewing a page with flycon links added or banner ads stripped out violate these rights?

3. *Infringement of the Reproduction and Public Display Rights*

In discussing whether the use of Web site modification technology might infringe either the reproduction or public display rights, it is important to understand that none of the technologies under consideration reproduce the HTML code of the underlying Web pages. For example, when a user accesses a framing Web site, the user's computer makes a RAM copy of the framed page's code, but the framing site itself does not. Unlike the servers in the public display cases,⁹⁸ the framing site's server does not hold a copy of the framed page, nor does it make available for download or transmit any copyrighted material. Consider the following description of the "Dilbert Hack Page," a framing Web site:

In January 1996, a Princeton University graduate student created a WWW site he called the Dilbert Hack Page (DHP) which allowed users to view recent Dilbert comics in a context different from that provided by [Dilbert's owners, United Feature Syndicate].

The DHP used the names of Dilbert comic image files, obtained from the [United Feature Syndicate's] Dilbert site each day, to generate a remote auto-load link that was written into the DHP's HTML document.... When visitors to the DHP subsequently downloaded (browsed) the DHP's HTML document to their computer, the remote auto-load link HTML instructions were interpreted by the user's browser which, in turn, contacted

96. 983 F. Supp. 1167 (N.D. Ill. 1997).

97. *Id.* at 1241.

98. See *supra* text accompanying notes 92-97.

[United Feature's] Dilbert site, downloaded the links' identified image files, and displayed the targeted image files.

For analytical purposes, it is important to note that the DHP HTML page did not contain the subsequently displayed Dilbert image files. The DHP's author never duplicated the Dilbert cartoons at all. What the DHP HTML page did, however, is identify the precise location (computer site and file name) of the targeted Dilbert image files and, based on this information, the image files were obtained directly from [United Feature's] Dilbert site by the user's browser for incorporation into the DHP as displayed on the user's computer.⁹⁹

For framing and in-line links in general, then, the copying into RAM of a Web page's HTML code and the displaying of its images occurs only on the end user's computer and not on the framing site's server.

Similarly, ad-stripping technology does not reproduce the HTML code representing a Web page. Instead, it merely recognizes the piece of code that pulls a banner from an ad server and inserts a different ad in its place.¹⁰⁰ Commentary software, like Third Voice, and overlay applications, like Flyswat, also function without reproducing the underlying page's HTML code. For example, when a Flyswat subscriber browses a Web page, the Flyswat application tells the Flyswat servers to request the same page, which it then parses to generate the flycon links overlay.¹⁰¹ However, the modified display is not the product of a newly generated file containing a reproduction of the original page's HTML code. The Third Voice and Flyswat servers use the underlying page only to create a reference that allows the commentary or flycons to be properly placed.

Because these technologies do not themselves copy or make available for download any of the underlying Web sites' copyrighted code or images, they likely do not directly infringe the underlying Web sites' reproduction or display rights. Of course, the user's computer makes a RAM copy of the underlying page. But the copying and displaying that take place on an end user's computer is exactly the same kind of copying and displaying that take place *any* time a user accesses a Web page. Surely, ordinary Web browsing does not result in copyright infringement.¹⁰² Indeed, some legal commentators have argued that a Web publisher, by making his Web site publicly accessible, grants an implied non-exclusive license to individuals

99. Edward A. Cavazos & Coe F. Miles, *Intellectual Property on the WWW: Linking, License and Liability*, 576 PLI/PAT 559, 565 (1999) (figure omitted).

100. Monceaux, *supra* note 6.

101. Hayes, *supra* note 2.

102. *Intellectual Reserve, Inc. v. Utah Lighthouse Ministry, Inc.*, 75 F. Supp. 2d 1290 (D. Utah 1999), held that Web browsing creates potentially infringing copies. See *supra* text accompanying notes 87-88. That case, however, involved copyrighted material placed on the Web without the plaintiff's consent. In ordinary Web browsing, on the other hand, users copy only material that the Web site owner legitimately makes available to the public.

to engage in basic Web browsing activities, including making the necessary RAM copies and displaying the necessary images.¹⁰³

Certainly there is some commonsense appeal to the notion that a person who puts up a Web site is at least implicitly giving his permission to do the things necessary to view that site. Moreover, such an interpretation is consistent with existing law. Although the Copyright Act requires that a transfer of a copyright owner's exclusive rights must be in writing,¹⁰⁴ this requirement does not apply to non-exclusive licenses, which may be oral or even implied from the conduct of the parties.¹⁰⁵ For example, in *Effects Associates, Inc. v. Cohen*,¹⁰⁶ the court held that a special effects company implicitly licensed film footage to a moviemaker when it delivered the footage at the request of the moviemaker. In another case, a book author was held to have granted a non-exclusive license to use portions of his book when he allowed another author to review and revise the manuscript.¹⁰⁷ Similarly, because Web site publishers intentionally make their sites publicly available, a user arguably has a non-exclusive license to view a Web site using experience-modifying technologies.

However, important questions remain about the scope of that implied license. A Web site owner could argue that while she has no objection to individuals browsing her site, she does not grant permission to modify it by framing or adding hyperlinks. Furthermore, although she would presumably allow individual end-users to make the necessary RAM copies, she might not intend for commercial entities like Flyswat to take part in the process. In other words, using these experience-modifying technologies may exceed the scope of the implied license and, therefore, infringe the reproduction or public display rights.¹⁰⁸ However, the Web site owner's objections are not really about the mere reproduction of the Web page or the display that is necessary to view it. The Web site owner's objections are, rather, about the *modification* of the Web page. One could frame the argument in terms of infringing the reproduction or display rights by acting outside the scope of the implied license. However, a more plausible possibility is that these technologies infringe the derivative work right, rather than the reproduction or display rights, by creating a new user experience. The following Section, then, will examine whether the technologies in question create infringing derivatives of the affected Web pages.

103. See, e.g., Cavazos & Miles, *supra* note 99, at 578-82.

104. 17 U.S.C. § 204(a) (1994).

105. 3 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 10.03[A] (2000).

106. 908 F.2d 555 (9th Cir. 1990).

107. *Silva v. MacLaine*, 697 F. Supp. 1423 (E.D. Mich. 1988), *aff'd*, 888 F.2d 1392 (6th Cir. 1989).

108. A licensee who exploits a work in a manner not authorized by the license may be guilty of breach of contract, copyright infringement, or both. 3 NIMMER, *supra* note 105, at § 10.15[A].

B. *The Derivative Works Right*

A copyright owner has the exclusive right to create derivative works, and may bring an infringement action against those who produce unauthorized derivative works.¹⁰⁹ The Copyright Act defines a derivative work as:

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, or other modifications which, as a whole, represent an original work of authorship, is a "derivative work."¹¹⁰

In addition, courts have added two important requirements to the statutory definition. First, to be a derivative work, the work must be embodied in "a concrete or permanent form."¹¹¹ Second, a derivative work must be sufficiently original to support an independent copyright.¹¹² This Part examines whether any of the experience-modifying technologies create derivative works that meet these requirements.

1. *The Concrete Embodiment Requirement*

All of the aforementioned technologies create a new experience for the user by modifying how a Web site is displayed. However, these technologies do not function by simply *intercepting* the HTML code that makes up a Web page and substituting an altered version of it; rather, the technologies implement code that *interacts* with the original page's code.¹¹³ Thus, any derivative work that these technologies create must consist of something other than an altered version of the underlying page's HTML code.¹¹⁴ Indeed, the modified display itself must constitute the derivative work. However, the modified display may not meet the requirement that the new work exist in a "concrete or permanent form."¹¹⁵

The case law in this area is sparse, but *Lewis Galoob Toys, Inc. v. Nintendo of America, Inc.*¹¹⁶ illustrates the concrete embodiment requirement in an analogous context. In *Galoob*, the court examined

109. 17 U.S.C. §§ 106(2), 501(a) (1994).

110. *Id.* § 101.

111. *Micro Star v. FormGen, Inc.*, 154 F.3d 1107, 1110 (9th Cir. 1998).

112. *Lee v. A.R.T. Co.*, 125 F.3d 580, 582 (7th Cir. 1997).

113. *See supra* text accompanying notes 98-101.

114. If these technologies *did* alter a Web page's underlying HTML code, they might very well create infringing derivative works. Computer code enjoys copyright protection, at least so far as it is expressive and not functional; thus, creating an unauthorized altered version of a Web page's HTML code could infringe the derivative work right. *See Apple Computer, Inc. v. Franklin Computer Corp.*, 714 F.2d 1240, 1252-53 (3d Cir. 1983).

115. *Micro Star*, 154 F.3d at 1110 (citation omitted).

116. 964 F.2d 965 (9th Cir. 1992).

whether defendant's "Game Genie" product, which enhanced the action of Nintendo video games, infringed Nintendo's copyright by creating a derivative work.¹¹⁷ The court held that the Game Genie did not produce anything in a concrete or permanent form, and therefore did not create an infringing derivative work: "[T]he Game Genie cannot produce an audiovisual display; the underlying display must be produced by a Nintendo Entertainment System and game cartridge. . . . [T]he resulting display is not 'embodied' in the Game Genie. It cannot be a derivative work."¹¹⁸ The *Galoob* court distinguished *Midway Manufacturing Co. v. Artic International, Inc.*¹¹⁹ in which the Seventh Circuit held that a computer chip that accelerated the play of Galaxian video games *was* a derivative work. The *Galoob* court commented that Artic's computer chip "substantially copied and *replaced* the chip that was originally distributed by Midway," but that the Game Genie did not "physically incorporate a portion of a copyrighted work."¹²⁰ Under *Galoob*, then, Web site modification technologies might not create derivative works because they do not physically incorporate any portion of the modified Web pages' HTML code.

Not all courts, however, agree with *Galoob*. For example, in *Micro Star v. FormGen, Inc.*,¹²¹ the court held that an altered computer display *was* an infringing derivative work even though the defendant's technology generated the display without incorporating any of the plaintiff's copyrighted code or graphics. The defendant in that case compiled and distributed MAP files that displayed new game levels when run in conjunction with plaintiff's "Duke Nukem" video game software.¹²² The MAP files described the game levels in detail, but did not actually contain any of plaintiff's copyrighted code or graphics.¹²³ The MAP files merely contained instructions that told the computer which graphics from plaintiff's source art library to display and where to put them on the screen.¹²⁴ In other words, the MAP files *referenced* plaintiff's source art library, but did not physically incorporate any of plaintiff's copyrighted material. Nonetheless, plaintiff alleged infringement of its derivative work right. The district court held in favor of defendants, noting *Galoob*'s requirement that there must be a physical embodiment of the underlying work.¹²⁵ However, on appeal the Ninth Circuit held that the audiovisual

117. *Id.* at 967.

118. *Id.* at 968.

119. 704 F.2d 1009 (7th Cir. 1983).

120. *Galoob*, 964 F.2d at 969.

121. 154 F.3d 1107 (9th Cir. 1998).

122. *Id.* at 1109.

123. *Id.* at 1110.

124. *Id.*

125. *Micro Star v. FormGen, Inc.*, 942 F. Supp. 1312 (S.D. Cal. 1996), *rev'd*, 154 F.3d 1107 (9th Cir. 1998).

displays created when the "Duke Nukem" software was run in conjunction with defendant's MAP files were recorded in permanent form in the MAP files, and therefore qualified as derivative works.¹²⁶ The court distinguished *Galoob* by pointing out that the modified displays generated by the Game Genie existed only as long as the user played the game, while the displays created by Micro Star's MAP files were permanently embodied in the MAP files themselves.¹²⁷ The court disregarded the fact that the MAP files did not actually incorporate any of plaintiff's copyrighted code or graphics, and were capable of generating the audiovisual displays only in conjunction with the Duke Nukem software.

Web site modification technologies, like Micro Star's MAP files, work in conjunction with the underlying Web pages' HTML code to create modified displays. These technologies do not physically incorporate the underlying pages' HTML code, but they do generate code that references the underlying Web pages.¹²⁸ For example, the Flyswat server generates code that references the underlying Web page so that the flycon overlays can be properly placed on the underlying page. Similarly, a framing Web site's HTML code must contain a reference to the framed site's URL.¹²⁹ If such referencing of the underlying Web site is sufficient to satisfy the physical-embodiment requirement, then the displays created by framing or by superimposing Flyswat links on the underlying Web page could constitute derivative works. Indeed, following *Micro Star*, all the technologies under consideration might create infringing integrated displays.¹³⁰ However, on closer examination, the *Micro Star* analysis is problematic.

The *Micro Star* court used the following illustration to bolster its argument that the MAP files were not merely "a more advanced version of the Game Genie":¹³¹

Imagine a product called the Pink Screener, which consists of a big piece of pink cellophane stretched over a frame. When put in front of a television, it makes everything on the screen look pinker. Someone who manages to record the programs with this pink cast (maybe by filming the screen) would have created an infringing derivative work. But the audiovisual display observed by a person watching television through the Pink Screener is not a derivative work because it does not incorporate the modified image in any permanent or concrete form. The Game Genie might be described as a fancy Pink Screener for video games, changing a value of the

126. *Micro Star*, 154 F.3d at 1111-12.

127. *Id.* at 1111.

128. *See Loren, supra* note 7, at 66.

129. *Id.* at 69.

130. *See infra* note 136.

131. *Micro Star*, 154 F.3d at 1111.

game as perceived by the current player, but never incorporating the new audiovisual display into a permanent or concrete form.¹³²

However, said the *Micro Star* court, the MAP files were different from the pink-screened display; the MAP files permanently embodied the modified game levels, while the Pink Screener, like the Game Genie, did not.¹³³ The *Micro Star* analysis implies that the MAP files are analogous not to the pink-screened television program, but rather to the hypothetical film of the pink-screened television program. However, this analogy is flawed: the film reproduces the television program, but the MAP files do not reproduce the copyrighted code and images that make up a Duke Nukem display. Similarly, Web site modification technologies do not reproduce any copyrighted code or images from the underlying Web pages. It is stretching logic to contend, as the *Micro Star* court did, that merely digitally referencing a work "physically embodies" that work.

Moreover, the *Micro Star* analysis has the potential to reach too broadly. Fundamental to the concept of a derivative work is the requirement that the new work must substantially incorporate protectable materials from, or be substantially similar to, the copyrighted work.¹³⁴ But the *Micro Star* court's substantial-similarity analysis was largely determined by its holding that digitally referencing a copyrighted work satisfies the physical-embodiment requirement: "FormGen will doubtless succeed in [showing substantial similarity] since the audiovisual displays generated when the player chooses the [game] levels come entirely out of [FormGen's] source art library."¹³⁵ In other words, the modified display will necessarily be substantially similar since it consists largely of the referenced material. According to this interpretation, a framing site's display will always be substantially similar to the framed site's display, and a display with Flycon overlays or Third Voice commentary will always be substantially similar to the underlying display. Thus, as one commentator has observed, "Interpreting the test in this manner essentially eliminates the substantially similar requirement for integrated works."¹³⁶

This critique suggests that the modified display produced by the interaction of a Web site's code with code generated by one of the experience-modifying technologies should not be considered a derivative work. The new experience created by the end user when she views a Web page using one of these technologies may appear to be a new work that substantially incorporates preexisting copyrighted material from the underlying page,

132. *Id.* at 1111 n.4.

133. *Id.* at 1111.

134. *Litchfield v. Spielberg*, 736 F.2d 1352, 1357 (9th Cir. 1984); *see also* 1 NIMMER, *supra* note 105, at § 3.01 (stating that the new work must be substantially copied from a prior work).

135. *Micro Star*, 154 F.3d at 1112.

136. Loren, *supra* note 7, at 74. Loren uses the term "integrated works" to refer to works that digitally reference, but do not reproduce, preexisting copyrighted material. *Id.* at 59.

but it is actually the simultaneous viewing of two interacting works. Using Third Voice, Flyswat, or any of the other technologies is just like using the Pink Screener. Furthermore, this new experience must be considered in light of the end user's implied rights to copy and display the Web page.¹³⁷ Even if one accepts the *Micro Star* conclusion that merely digitally referencing a copyrighted work satisfies the concrete-embodiment requirement, however, the technologies do not necessarily create infringing derivative works. Indeed, as the next Part shows, many of these technologies do not create displays that are sufficiently original to constitute derivative works.

2. *The Originality and Creativity Requirement*

In order to create a derivative work, the change to the original work must itself be significant enough to support an independent copyright.¹³⁸ In the words of one leading scholar, "for a derivative work to have been created, the [Copyright] Act requires the contribution of expressive content capable of standing on its own as a copyrightable work."¹³⁹ Several cases have discussed this requirement in the context of mounting or framing works of art. In *Lee v. A.R.T. Co.*,¹⁴⁰ the Seventh Circuit found that a copyrighted lithograph that was mounted on a ceramic tile was not a derivative work. According to Judge Easterbrook, the original was not "recast, transformed, or adapted."¹⁴¹ Furthermore, a museum does not create a derivative work each time it changes the frame of a copyrighted painting.¹⁴² Thus, Judge Easterbrook concluded, "[i]f the framing process does not create a derivative work, then mounting art on a tile, which serves as a flush frame, does not create a derivative work."¹⁴³ The lower court in *Lee v. Deck the Walls, Inc.*¹⁴⁴ reached a similar conclusion and pointed out that an unauthorized derivative work must contain a degree of creativity and originality to constitute copyright infringement.¹⁴⁵

Obviously, these principles have some application to framing on the Web and to the other Web site modification technologies. If putting a picture in a frame or on a tile is too trivial a change to support an independent copyright, then maybe putting a Web site in a "frame" also fails to create a derivative work. On the other hand, framing and using in-line links on the Web is not completely analogous to framing a painting.

137. See *supra* text accompanying notes 103-107.

138. *Lee v. A.R.T. Co.*, 125 F.3d 580, 582 (7th Cir. 1997).

139. 2 PAUL GOLDSTEIN, COPYRIGHT § 5.3 (2d ed. Supp. 2000).

140. 125 F.3d 580 (7th Cir. 1997).

141. *Id.* at 582.

142. *Id.* at 581.

143. *Id.*

144. 925 F. Supp. 576 (N.D. Ill. 1996), *aff'd sub nom. Lee v. A.R.T. Co.*, 125 F.3d 580, 582 (7th Cir. 1997).

145. *Id.* at 580.

Consider the example of TotalNews.¹⁴⁶ TotalNews operated a Web site that made available up to twelve news sources from all over the world. The TotalNews home page consisted of the totalnews.com URL at the top of a column of rectangular icons, names of several news sources running down the left margin, and advertising sold by TotalNews at the bottom. At the right-center portion of the screen was a news window, which contained hyperlinks to various news sources. When a user clicked on one of the hyperlinks, material from that news source's Web site would fill the window. For example, if a user clicked on the Washington Post link, the electronic version of the Washington Post would be linked in from the Post's own Web site and displayed in the TotalNews window.¹⁴⁷

The kind of framing TotalNews did creates a fairly substantial alteration in the linked work. The display on the user's computer screen consisted partly of TotalNews material and partly of the linked-in site's material. Consider also the use of in-line links to display Dilbert cartoons on the Dilbert Hack Page.¹⁴⁸ The cartoon itself as displayed on the Dilbert Hack Page would be unaltered, but the display created on a user's computer screen, considered as a whole, would be very different from the display on the original Web site. This difference, given the change in context, could be significantly greater than the effect created by merely placing a picture in a frame or gluing it to a tile. Perhaps, then, displays created by Web framing, at least in some circumstances, do possess sufficient creativity and originality to qualify as derivative works.

Similarly, the altered displays created when a user constructs a personal "combination" page using Call the Shots¹⁴⁹ are almost certainly original and creative enough to qualify as a derivative work. The displays created by ad stripping are a much closer case. On the one hand, the display with one ad might look quite different from the display with a different ad. On the other hand, as one ad stripper points out, "Web site owners never know what ads are going to be served on their site if it's coming from a third party, and they can never validate if an ad ever showed up at all."¹⁵⁰ Considering that a Web site owner's only intention regarding banner ads is that *some* ad shows up, it is unreasonable to argue that an ad stripper makes a significant alteration when one third-party-generated ad is switched for another. *Paramount Pictures Corp. v. Video Broadcasting Systems, Inc.*¹⁵¹ lends support to the argument that ad stripping does not create derivative works. In that case, the defendant added commercials to

146. See *Washington Post Co. v. TotalNews, Inc.*, No. 92 Civ. 01190 (S.D.N.Y. filed Feb. 20, 1997).

147. This description of the TotalNews site is taken from Hayes, *supra* note 2.

148. See *supra* text accompanying note 99.

149. See *supra* text accompanying note 57.

150. Monceaux, *supra* note 6.

151. 724 F. Supp. 808 (D. Kan. 1989).

the beginnings of video tapes rented to consumers by retail video rental stores.¹⁵² Paramount sued, alleging that defendant's addition of commercials to videotapes containing Paramount's motion pictures created derivative works. The court rejected this claim, concluding that a videotape with commercials "is not a new version of the motion picture."¹⁵³

Flycon underlining and Third Voice flags create relatively small, perhaps even trivial, alterations to the underlying page; however, at least in the case of the original version of Third Voice, Web site owners have argued that the proliferation of flags can obscure their sites.¹⁵⁴ Furthermore, the newer version of Third Voice, which puts commentary in a frame side-by-side with the target site, alters the display in much the same way that framing does. Thus, if the framing on the TotalNews site created derivative works, then this version of Third Voice likely does also. Finally, the superimposition of pop-up screens, as in comparison-shopping applications, seems less likely to create derivative works. These pop-up screens do not alter the underlying Web site display at all, but rather sit on top of it. On the other hand, to the extent that the sequence of screens presented by a Web site constitutes a copyrightable audiovisual work, a Web site owner might argue that the insertion of a screen in that sequence constitutes an unauthorized derivative work.¹⁵⁵

Notably, not all courts require that an infringing derivative work be sufficiently original and creative to stand on its own as a copyrightable work. For example, in *Mirage Editions, Inc. v. Albuquerque A.R.T. Co.*,¹⁵⁶ the Ninth Circuit held that the defendant *did* create infringing derivative works when he removed prints from lawfully acquired art books and mounted them on tiles. According to the court, "[b]y removing the individual images from the book and placing them on the tiles, perhaps the appellant has not accomplished reproduction . . . [but] appellant has certainly recast or transformed the individual images by incorporating them into its tile-preparing process."¹⁵⁷ This argument requires that one read the Copyright Act so as to impose the "originality" requirement only on works "consisting of editorial revisions, annotations, elaborations, or other modifications," as described in the second sentence of the paragraph defining derivative works.¹⁵⁸ According to this reading, the definition's first sentence creates a class of unoriginal derivative works that includes "any . . . form in which a work may be recast, transformed, or adapted."¹⁵⁹

152. *Id.* at 808.

153. *Id.* at 821.

154. *See Say No to Third Voice*, *supra* note 52.

155. *See Hayes*, *supra* note 2.

156. 856 F.2d 1341 (9th Cir. 1988).

157. *Id.* at 1344.

158. 17 U.S.C. § 101 (1994).

159. *Id.*

In sum, whether these technologies create displays that are sufficiently original to constitute derivative works, assuming that such a requirement exists, is at best an open question. Furthermore, these technologies do not satisfy the requirement that the new work exist in a concrete or permanent form.

C. Copyright Policy

One could argue *ad nauseum* about admittedly abstruse—even metaphysical—questions such as what constitutes “substantial incorporation” or “sufficient originality and creativity,” what it means to “recast, transform, or adapt” a work, or whether the Copyright Act imposes these requirements at all. As the discussion thus far has shown, there is no easy way to apply existing case law and statutory language to Web site modification technologies. Perhaps, then, it would be more useful to return to the principles that underlie copyright law.

The Constitution grants Congress the power “[t]o promote the Progress of Science and the useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.”¹⁶⁰ The fundamental purpose of intellectual property protection, then, is to promote the progress of knowledge and learning, not to financially reward authors. Copyright law allows authors to reap the financial rewards of their work, but only to encourage the production and dissemination of new works.¹⁶¹ Yet, overprotection of works of authorship is as dangerous as underprotection, because almost all works build on existing works. Thus, copyright law seeks to achieve a balance by granting enough protection to provide authors an incentive to produce, but not so much that creativity is stifled.¹⁶² Granting Web site owners the right to prevent the use of Web site modification technologies upsets this balance.

If these technologies are deemed to create infringing derivative works, fear of infringement may deter the production of many valuable works. Technologies like Third Voice or McSpotlight have the potential to involve individuals in public discourse and to disseminate viewpoints. Call the Shots, framing, and Flyswat enable users to experience Web sites in forms that are more useful to them. Even ad stripping may create value if the stripped-in ads are targeted to particular users, as for example when a local Internet Service Provider (“ISP”) strips in ads for local merchants. Certainly the fact that consumers like a derivative work does not make it any less infringing. The point is that these technologies create value. Thus, copyright protection prohibiting their use is warranted only if Web site

160. U.S. CONST. art. I, § 8, cl. 8.

161. See *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 428 (1984).

162. *Id.*

owners would not have sufficient incentive to create in the absence of such protection.

However, it seems unlikely that allowing the use of these technologies would destroy the incentive to create the underlying Web sites because these technologies do not create market substitutes. Indeed, for a user to employ these technologies, she must have access to an authorized copy of the underlying Web page. A user who uses Flyswat to superimpose additional links on a Web page does not avoid accessing the underlying page. By making the underlying pages more useful to consumers, these technologies may actually increase the market for the underlying sites. A Web site owner might not like that a user can view her page with Third Voice commentary or flags, but since it is entirely up to the user whether to view the site in this way, the owner cannot argue that her site has become less attractive to consumers. Indeed, it seems safe to assume that the user finds the site *more* attractive with the commentary since that is how she chooses to view it.¹⁶³

Of course, not all infringing derivative works create market substitutes. A Spanish translation of an English novel is a derivative work although it serves a different market. This makes sense because, presumably, part of the author's incentive in writing the novel in the first place was the potential reward from licensing translations. Similarly, some Web site owners might not object to the use of, for example, Flyswat or comparison-shopping applications, but they undoubtedly would like to receive licensing revenue for such uses. Clearly, granting Web site owners the right to collect licensing fees for the use of these technologies would give them additional incentive to produce Web sites. However, that fact alone is not sufficient reason to grant them this right. After all, conferring copyright protection on any currently unprotected class of works might create additional incentives to create such works. Courts nonetheless routinely resist expanding the scope of copyright in cases where the benefits do not clearly outweigh the costs.¹⁶⁴

Moreover, in many cases, Web site owners can secure the ability to exploit derivative markets without copyright protection. Web site owners who wish to participate in the markets created by these technologies can employ technological measures to prevent others from creating new works

163. However, a modified Web site might be less valuable in other ways. For example, the owner of a framed Web site might object that framing obscures banner ads, and interferes with ad sales. See *infra* text accompanying notes 182-183.

164. See, e.g., *Feist Publ'ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340 (1991) (holding that telephone directories were uncopyrightable collections of facts). In addition, to argue that the suspect work interferes with the right of the underlying work's owner to license derivative works assumes that the suspect work is an infringing derivative, the very question at issue. See *Princeton Univ. Press v. Michigan Document Servs., Inc.*, 99 F.3d 1381, 1397-1412 (6th Cir. 1996) (Ryan, J., dissenting).

that reference their sites.¹⁶⁵ These technological measures would allow Web site owners either to create their own modified versions of their sites, or license others to do so, without competition from unauthorized parties.¹⁶⁶ The anticircumvention provisions of the Digital Millennium Copyright Act provide a legal remedy if such technological protections are bypassed.¹⁶⁷ That is not to say that copyright protection should be abolished in every case where copyright holders could secure their rights by some other means. Here, however, where so many considerations weigh against expanding copyright protection, effective technological measures alone provide Web site owners with sufficient incentive to create.

Some Web site owners, of course, may have no interest in licensing their sites, but nonetheless want copyright law to prohibit the use of experience-modifying technologies. McDonald's would almost certainly not license McSpotlight's activity, and Web designers may not like that users can view their carefully designed sites cluttered with Third Voice flags. Ultimately, the Web site owners want the ability to control any disapproved use of the work. However, as Judge Easterbrook pointed out in *Lee v. A.R.T.*, United States law does not generally protect copyright owners' rights to "block any modification of their works of which they disapprove."¹⁶⁸ Presently, the Copyright Act expressly protects rights of integrity only for works of visual art, and then only in particular circumstances.¹⁶⁹ Considering the *Mirage Editions* case, Judge Easterbrook observed, "if [the Ninth Circuit is] right about what counts as a derivative work, then the United States has established through the back door an

165. Possible technological measures include insertion of CGI scripts to prevent linking and framing, or to redirect users who are attempting to access an internal page to the home page of the site. CGI scripts are also available to prevent Third Voice notes from being posted in connection with a particular site. Loren, *supra* note 7, at 91. Other methods of preventing access to a site include using passwords, dynamic paging, and periodically changing the URL. Roarty, *supra* note 7, at 1057.

166. Loren, *supra* note 7, at 91.

167. See The Digital Millennium Copyright Act of 1998, Pub. L. No. 105-304, § 103(a), 112 Stat. 2860, 2863-72 (codified at 17 U.S.C. § 1201 (Supp. IV 1998)). The Act prohibits manufacture or distribution to the public any product or any part of any product that is primarily designed for circumventing technological protections. 17 U.S.C. § 1201(a)(2)(A). Of course, these anticircumvention provisions are far from uncontroversial and may themselves impose significant societal costs. See Pamela Samuelson, *Intellectual Property and the Digital Economy: Why the Anti-Circumvention Regulations Need to be Revised*, 14 BERKELEY TECH. L.J. 519 (1999). However, the wisdom of permitting a copyright owner to use technological measures to prevent what would be a noninfringing use of a work is beyond the scope of this paper.

168. *Lee v. A.R.T. Co.*, 125 F.3d 580, 582 (7th Cir. 1997).

169. Pursuant to the Visual Artists Rights Act of 1990, Pub. L. No. 101-650, 104 Stat. 5089, 5123-33, the Copyright Act now gives an artist the right to "prevent any intentional distortion, mutilation, or other modification of that work which would be prejudicial to his or her honor or reputation." 17 U.S.C. § 106A(a)(3)(A) (1994). However, this right applies only to "works of visual art," which are narrowly defined to include only paintings, drawings, prints, sculptures, or photographic images produced for exhibition purposes, existing in single copies, or in limited editions of two hundred or fewer signed and consecutively numbered copies. *Id.* § 101.

extraordinarily broad version of authors' moral rights."¹⁷⁰ Judge Easterbrook continued, "[i]t would not be sound to use [the derivative work right] to provide artists with exclusive rights deliberately omitted from the Visual Artists Rights Act."¹⁷¹ Allowing Web site owners to prevent the use of these technologies using an expanded definition of derivative works would be equally unsound.

IV FAIR USE

The doctrine of fair use allows for the reasonable use of copyrighted material without the consent of the copyright owner. To determine whether a particular use is fair, a court examines several factors: (1) the purpose and character of the use, including whether such use is of a commercial character; (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 on the potential market for the copyrighted work.¹⁷²

In *Galoob*, for example, the court held that the Game Genie, even if it did create infringing derivative works, constituted a fair use.¹⁷³ The court held that "a family's use of a Game Genie for private home enjoyment must be characterized as a non-commercial, nonprofit activity. . . . Their use of the Game Genie to create derivative works is presumptively fair."¹⁷⁴ This holding followed from the Supreme Court's determination in *Sony Corp. of America v. Universal Studios, Inc.* that unauthorized, noncommercial "timeshifting"—the practice of using a VCR to tape a copyrighted program for later viewing—was a fair use.¹⁷⁵ Although *Sony* involved copying copyrighted works rather than creating derivative works, the *Galoob* court refused to distinguish *Sony* on that ground:

Sony cannot be read so narrowly. It is difficult to imagine that the Court would have reached a different conclusion if Betamax purchasers were skipping portions of copyrighted works or viewing denouements before climaxes. *Sony* recognizes that a party who distributes a copyrighted work cannot dictate how that work is to be enjoyed. Consumers may use a Betamax to view copyrighted works at a more convenient time. They similarly may use a Game Genie to enhance a Nintendo Game cartridge's audiovisual display in such a way as to make the experience more enjoyable.¹⁷⁶

170. *Lee*, 125 F.3d at 582.

171. *Id.* at 583.

172. 17 U.S.C. § 107 (1994).

173. *Lewis Galoob Toys, Inc. v. Nintendo of Am., Inc.*, 964 F.2d 965, 969-72 (9th Cir. 1992).

174. *Id.* at 970.

175. *See Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 447-48 (1984).

176. *Galoob*, 964 F.2d at 971.

The use of experience-modifying technologies could equally be characterized as noncommercial and nonprofit. Certainly a user who views a framed Web page or a page with flycon links, posts Third Voice commentary, or uses a comparison-shopping application is not engaging in commercial, profit-seeking activity. Like Game Genie-using Nintendo players, or video tapers who fast forward through commercials, Web browsers may use these technologies to view Web sites in more enjoyable or convenient ways. Thus, it would seem, the use of these technologies might very well be fair use.

The *Galoob* analysis requires that one view the potentially infringing activity from the point of view of the end user. This approach is sensible here given that the only place that the modified displays really exist is on individual end users' computer screens.¹⁷⁷ Commercial entities such as TotalNews, Flyswat, Call the Shots, or Third Voice do not themselves create modified displays any more than Sony Corporation bootlegs video tapes.¹⁷⁸

Nonetheless, it is not a foregone conclusion that a court would view the situation this way. In *Micro Star*, for example, the court refused to look at the creation of the modified game levels from the player's point of view, and found that Micro Star's use of FormGen's protected expression "was made purely for financial gain."¹⁷⁹ This choice, however, seems based on the same fundamental misunderstanding of works that digitally reference other works that led the *Micro Star* court to conclude that the MAP files were derivative works in the first place.¹⁸⁰ The court should have analyzed the action as a contributory infringement suit against Micro Star premised on infringements by end users, rather than as a suit for direct infringement. Viewed this way, the fair use analysis would logically proceed from the end user's perspective.

The second and third fair use factors—the nature of the copyrighted work and the amount of the work used—may not weigh against fair use either. Consider that the Court in *Sony* found fair use despite the fact that VCR users often taped entire copyrighted programs:

[W]hen one considers the nature of a televised copyrighted audiovisual work, and that time-shifting merely enables a viewer to see such a work which he had been invited to witness in its entirety

177. See *supra* text accompanying notes 99-101.

178. However, relevant differences between the technologies may become evident when applying the "substantial non-infringing uses" defense to contributory infringement, see *infra* Part IV, under *Sony*. *Sony*, 464 U.S. at 442. While the *only* purpose of the Web site modification technologies is to create modified displays, the Sony's video tape recorders had legitimate uses besides bootlegging. Of course, this step in the analysis would only arise *after* a finding of direct infringement (and no fair use) by the end user, which is the issue presented in this Part.

179. *Micro Star v. FormGen, Inc.*, 154 F.3d 1107, 1113 (9th Cir. 1998).

180. See *supra* text accompanying notes 132-134.

free of charge, the fact that the entire work is reproduced does not have its ordinary effect of militating against a finding of fair use.¹⁸¹

Much the same can be said about the use of Web site modification technologies. Despite the appearance of large amounts of the original Web pages in modified displays, the pages were made publicly available to view free of charge.

The fourth fair use factor—the effect of the use upon the potential market for, or value of, the copyrighted work—is often the most important. This Comment argues above that these technologies do not create market substitutes or lessen the value of the underlying Web sites to users.¹⁸² However, Web site owners might believe that certain of these technologies lessen the value of their sites in other ways. For example, the plaintiffs in *TotalNews* complained that framing their sites obscured the banner ads on the original pages. Ad stripping might also interfere with Web site owners' ability to market their sites to advertisers. In the short term, Web site owners would get credit for clicks on the stripped-in ads just as they would for the original ads, but in the long term an inability to control what ads are served is likely to lessen a site's attractiveness to advertisers. Comparison-shopping applications could draw potential customers away from a site if another site offered a better deal, but whether copyright law should prevent such competitive "damage" is questionable.¹⁸³ Finally, criticism posted through Third Voice or McSpotlight might damage someone's reputation or good will, but that is not a harm cognizable under copyright law.¹⁸⁴

This aspect of the fair use analysis is particularly fact specific, so it is difficult to predict how any individual case would come out. However, *Sony* makes clear that when the use is noncommercial, the burden is on the plaintiff to show actual or potential market harm.¹⁸⁵ With these technologies, the best arguments for potential market harm involve interference with, or removal of, advertising. However, a VCR user can avoid advertising by fast forwarding through the commercials. That reality was insufficient to persuade the *Sony* Court that timeshifting was not a fair use. If it

181. *Sony*, 464 U.S. at 449 (citations omitted).

182. See *supra* text accompanying note 163.

183. Although beyond the scope of this paper, the freedom to compete is well established in unfair competition law: "The freedom to engage in business and to compete for the patronage of prospective customers is a fundamental premise of the free enterprise system." RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 1 cmt. a (1995).

184. See *Campbell v. Acuff-Rose Music, Inc.*, 510 U.S. 569, 591-92 (1994) ("We do not, of course, suggest that a parody may not harm the market at all, but when a lethal parody, like a scathing theater review, kills demand for the original, it does not produce a harm cognizable under the Copyright Act.").

185. *Sony*, 464 U.S. at 451 ("A challenge to a noncommercial use of a copyrighted work requires proof either that the particular use is harmful, or that if it should become widespread, it would adversely affect the potential market for the copyrighted work.").

is permissible to fast forward through television commercials, it should be permissible to view a Web page with the banner ads stripped out.

V

VICARIOUS AND CONTRIBUTORY INFRINGEMENT

This Comment has thus far argued that using certain technologies to modify one's experience of a Web site is not copyright infringement. It has also argued that if these technologies *are* deemed to create infringing displays, using them should be considered a fair use. Suppose, however, that end users who access framing Web sites, subscribe to Third Voice or Flyswat, view Web pages with banner ads stripped out, or employ comparison-shopping applications are, in fact, guilty of copyright infringement. Are the commercial entities that enable this infringement by providing the technology also liable under a theory of contributory or vicarious infringement?

Although the Copyright Act does not provide a rule of liability for infringement committed by others, "[t]he absence of such express language in the copyright statute does not preclude the imposition of liability for copyright infringements on certain parties who have not themselves engaged in the infringing activity."¹⁸⁶ According to the Second Circuit, "one who, with knowledge of the infringing activity, causes or materially contributes to the infringing conduct of another, may be held liable as a 'contributory' infringer."¹⁸⁷ Furthermore, even without knowledge of the infringing activity, a defendant may be vicariously liable for the actions of a primary infringer where the defendant: "(1) has the right and ability to control the infringer's acts and (2) receives a direct financial benefit from the infringement."¹⁸⁸ Of course, liability for vicarious or contributory infringement always depends on a finding of direct infringement by another party.¹⁸⁹

The first issue is whether the technology providers have knowledge of their users' allegedly infringing activity. In *Religious Technology Center v. Netcom On-Line Communication Services, Inc.*,¹⁹⁰ the court examined whether a BBS (bulletin board service), and the BBS's ISP, were liable for copyright infringement committed by a subscriber of the BBS:

186. *Id.* at 435.

187. *Gershwin Publ'g Corp. v. Columbia Artists Mgmt., Inc.*, 443 F.2d 1159, 1162 (2d Cir. 1971).

188. *Religious Tech. Ctr. v. Netcom On-Line Communication Servs., Inc.*, 907 F. Supp. 1361, 1375 (N.D. Cal. 1995) (citing *Shapiro, Bernstein & Co. v. H.L. Green Co.*, 316 F.2d 304, 306 (2d Cir. 1963)); *see also* *Fonovisa, Inc. v. Cherry Auction, Inc.*, 76 F.3d 259, 261-64 (9th Cir. 1996) (discussing vicarious liability for operators of swap meet who controlled and benefited from infringing activity of independent vendors).

189. 3 NIMMER, *supra* note 105, at § 12.04[A].

190. 907 F. Supp. 1361 (N.D. Cal. 1995).

Where a BBS operator cannot reasonably verify a claim of infringement, either because of a possible fair use defense, the lack of copyright notices on the copies, or the copyright holder's failure to provide the necessary documentation to show that there is a likely infringement, the operator's lack of knowledge will be found reasonable and there will be no liability for contributory infringement for allowing the continued distribution of the works on its system.¹⁹¹

The defendants in *Religious Technology Center*, like the technology providers here, played a necessary role in the infringement, but were nonetheless absolved from any liability. This language may not be of much help, however, because the technology providers are not merely ISPs acting as passive conduits for the transfer of allegedly infringing material. In *A & M Records, Inc. v. Napster, Inc.*, the court held that defendant Napster, which "offers search and directory functions specifically designed to allow users to locate [copyrighted] music," was not an ISP that "acts as a mere conduit for the transfer of files."¹⁹² Therefore, "*Religious Technology Center* would not mandate a determination that Napster, Inc. lacks the knowledge requisite to contributory infringement."¹⁹³ According to *Napster*, "[c]ourts do not require actual knowledge; rather, a defendant incurs contributory copyright liability if he has reason to know of the third party's direct infringement."¹⁹⁴

If one accepts *Napster*, it seems unavoidable that the technology providers under consideration have at least constructive knowledge that the modified displays contain copyrighted material. Certainly TotalNews or the Dilbert Hack Page cannot claim to be unaware that the material they link in is copyrighted. Third Voice and Flyswat might argue that they do not know which particular Web sites their users access. However, in that way they are similar to Napster. According to the court,

The law does not require actual knowledge of specific acts of infringement. . . . Accordingly, the court rejects defendant's argument that titles in the Napster directory cannot be used to distinguish infringing from non-infringing files and thus that defendant cannot know about infringement by any particular user of any particular musical recording or composition.¹⁹⁵

Third Voice and Flyswat might not have actual knowledge of the particular Web sites to which users apply their technology, but they have constructive knowledge that at least some of these Web sites contain copyrighted mate-

191. *Id.* at 1374.

192. 114 F. Supp. 2d 896, 919 (N.D. Cal. 2000), *aff'd*, No. 00-16401, 00-16403, 2001 WL 115033 (9th Cir. Feb 12, 2001).

193. *Id.*

194. *Id.* at 918.

195. *Id.* (citations omitted).

rial. Much the same can be said of the other experience-modifying technologies. Under *Napster*, then, the knowledge element of contributory infringement is satisfied.

Moreover, the technologies here meet *Napster*'s threshold of material contribution: "Napster, Inc. supplies the proprietary software, search engine, servers, and means of establishing a connection between users' computers. Without the support services defendant provides, Napster users could not find and download the music they want" ¹⁹⁶ The commercial entities that provide the various technologies surely play a material role in enabling users to produce modified displays. Third Voice and Flyswat not only provide the necessary software, but also maintain the servers that produce the flycon overlays and commentary notes. An ad-stripping local ISP is the conduit by which users obtain not only the original Web page, but also the stripped-in banner ad. Technically, the modified display is "created" by the end user's browser and exists only on the end user's computer, but none of this could happen without the help of the ad stripper. Similarly, a framing Web site provides a significant portion of the modified display as it appears on the user's screen. The TotalNews and Dilbert Hack Page displays, for example, consist of material from the linked-in sites juxtaposed with material from the linking sites.

The *Napster* court gives a similarly expansive interpretation to vicarious liability. Following *Fonovisa, Inc. v. Cherry Auction, Inc.*, ¹⁹⁷ in which a swap meet operator was held vicariously liable for the sale by independent vendors of counterfeit recordings, the court held that Napster's ability to terminate users constituted the requisite "right and ability to supervise the infringing activity." ¹⁹⁸ The court disregarded Napster's argument that it was technologically difficult, and even infeasible, to distinguish legal and illegal conduct by its users. ¹⁹⁹ Furthermore, because the availability of copyrighted music attracted users to Napster's service, Napster had a direct financial interest in the infringing activity, even though Napster did not actually derive any revenue from particular acts of infringement. ²⁰⁰ Here again, the *Napster* interpretation of vicarious liability would seem to apply equally to the technologies under consideration. A framing Web site could control the infringing activity simply by not framing copyrighted material. Third Voice, Flyswat, and comparison-shopping operators could prevent users from using their services on particular Web sites. Call the Shots and ad strippers might not know which Web sites their users access, but there is

196. *Id.* at 920.

197. 76 F.3d 259 (9th Cir. 1996).

198. *Napster*, 114 F. Supp. 2d at 920 (quoting *Fonovisa*, 76 F. 3d at 262).

199. *Id.*

200. *Id.* at 902.

no evidence that it is technologically impossible to prevent individual sites from being affected.

However, one need not accept *Napster*. Perhaps the *Napster* court was too quick to dismiss the application of *Religious Technology Center*. Certainly *Napster*, like *Third Voice*, *Flyswat*, and the others, plays a more active role in the allegedly infringing activity of its users than did the ISP in *Religious Technology Center*. But imputing knowledge of infringing conduct, and equating the technological ability to block particular uses with the right to supervise and control infringing conduct, may expand liability for vicarious and contributory infringement so much that the free flow of information over the Internet becomes impossible. As the court in *Religious Technology Center* observed, “[i]f Usenet servers were responsible for screening all messages coming through their systems, this could have a serious chilling effect on what some say may turn out to be the best public forum for free speech yet devised.”²⁰¹ Web site modification technologies might not implicate the First Amendment to quite the same degree as the BBS in *Religious Technology Center*, but they similarly involve new and promising methods of exchanging information.²⁰² We must take care not to stifle this new technology’s potential by treating it as equivalent to a swap meet for purposes of vicarious and contributory liability.

Congress recognized that special rules were necessary to limit vicarious and contributory liability on the Internet when it passed the Digital Millennium Copyright Act (DMCA).²⁰³ The DMCA provides four “safe harbors” that limit the liability of “online service providers” for copyright infringements occurring online.²⁰⁴ The definition of “online service provider” is complex, and varies somewhat according to which of the four safe harbors is at issue.²⁰⁵ The *Napster* court determined that *Napster* did not qualify for the section 512(a) safe harbor because it did not provide connections “through” its system as the statute requires.²⁰⁶ Space does not permit a detailed analysis of whether any of the technologies under consideration might qualify for one or more of the DMCA safe harbors. Like *Napster*, none of these technologies performs a “passive conduit” function, and therefore none is likely to qualify for the safe harbor in sec-

201. 907 F. Supp. at 1377-78.

202. In fact, sites such as McSpotlight resemble political speech, at the core of First Amendment protection. See, e.g., *Dun & Bradstreet, Inc. v. Greenmoss Builders, Inc.*, 472 U.S. 749, 758-59 (1985) (“It is speech on ‘matters of public concern’ that is ‘at the heart of the First Amendment’s protection.’” (quoting *First Nat’l Bank of Boston v. Bellotti*, 435 U.S. 765, 776 (1978))). *Third Voice* and *Flyswat* have similarly strong First Amendment implications.

203. The Digital Millennium Copyright Act of 1998, Pub. L. No. 105-304, § 202, 112 Stat. 2860, 2877-78 (codified at 17 U.S.C. § 512 (Supp. IV 1998)).

204. 17 U.S.C. § 512(a)-(d) (Supp. IV 1998).

205. See *id.* § 512(k).

206. *A & M Records, Inc. v. Napster, Inc.*, No. C 99-05183 MHP, 2000 WL 573136, at *8 (N.D. Cal. May 12, 2000).

tion 512(a).²⁰⁷ But whatever the correct statutory interpretation, the larger point is that, in passing the DMCA, Congress recognized that vicarious and contributory liability for online copyright infringement must be limited. The court in *Religious Technology Center* came to the same conclusion. Any future court considering whether Third Voice, Flyswat, or any of the other technology providers is vicariously or contributorily liable for the infringing conduct of their users should be similarly circumspect.

CONCLUSION

The rapid pace of technological change will continually challenge courts to redefine the scope of copyright protection in the digital age. New technologies that modify a user's experience of a Web site are just a small part of the challenge, but consideration of these technologies reveals the extent of the task at hand. Case law specifically addressing these technologies is almost nonexistent, but courts will soon be confronted with many of the issues such technologies raise. This Comment has attempted to demonstrate that imposing copyright liability for the use of framing and linking, ad stripping, comparison-shopping applications, commentary software and Web sites, and Web site customization technology is inconsistent not only with existing copyright doctrine, but also with its underlying goal of promoting the progress of knowledge and learning. As the inevitable legal challenges to these technologies arise, courts should be careful not to expand copyright law in ways that undermine this fundamental goal.

207. See *id.* at *6.