
WEB SITE ANNOTATION: THE INTERSECTION OF NEW COMMUNICATION TECHNOLOGIES AND THE RIGHTS OF WEB SITE OWNERS

This has just gotta be illegal, *I think, typing away with a grin. Surely I'm not allowed to be doing this. But here I am, on a certain cable TV company's Web site—the opening page, mind you—complaining about its relentlessly awful customer service. And there it is, my demented ranting, for everyone to see.*¹

I. INTRODUCTION

Over twenty-five years ago, 3M pioneered a breakthrough in office and home productivity,² and if you were to ask your colleagues and friends today why they use Post-it® Notes, they would look at you as if you were quite strange. Those ubiquitous sticky pieces of paper have transformed the entire way society functions. People in the office and home use those little notes to leave messages and to make notations on documents, magazines, books, or virtually anything else to which they adhere.

As the Internet has changed the way we work, play, communicate, and live, a transformation similar to the Post-it® Notes revolution is taking place. Web site annotation tools provide individual Internet users with the ability to insert their own comments, critiques, suggestions, and advertisements into the pages of another individual's or company's Web site. For some people, Web site annotation is a natural extension of the freedom of speech,

1. Jon Kaufthal, *Say Anything—Anywhere*, WIRED, at <http://wired.com/wired/archive/7.09/streetcred.html?pg=11> (Sept. 1999) (emphasis added).

2. “A 3M scientist used an adhesive that didn't stick to create ‘temporarily permanent’ book markers—and a whole new product category. As a result, Post-it® Notes became a worldwide best seller.” 3M Worldwide, *Timeline: 1980-1989*, at <http://www.3m.com/profile/looking/1980.jhtml> (last visited Aug. 29, 2002).

but for others it is likened to graffiti and an infringement on intellectual property.

As this technology continues to proliferate, it will be important for the courts to develop a doctrine ensuring that it is not subject to widespread abuse. The courts will have to expand traditional doctrines and stretch them in order to create a suitable correlation to provide protection against Web site annotation. This commentary discusses the impact of Web site annotation tools on the use of the Internet, and delves into applicable laws that can provide protection for Web site owners. Part II discusses the technologies that enable Web site annotation and the role that these tools have played in the changing Internet landscape. Part III examines the various federal and state legal theories potentially applicable to Web site annotation and which can provide protection for Web site owners. Finally, Part IV highlights and defines the potential future legal landscape as it is applied to Web site annotation.

II. ALTERING CYBERSPACE—WEB ANNOTATION TOOLS

A new breed of Internet tools has emerged in the marketplace that enable users to annotate an individual's or a company's Web site. Through the use of these annotation tools, a visitor can leave comments, advertisements, suggestions, and personal opinions regarding any aspect of the Web site.³ In 1997, Crit.org and the Foresight Institute pioneered this emerging field of technology with the development of The CritLink Mediator.⁴ Since that time, a host of companies have launched similar products of their own, including the Annotation Engine Project,⁵ Annotate Technologies (formerly Annotate.net),⁶ and ThirdVoice.com, which was previously the most widely used service, but has subsequently suspended support for its consumer annotation product.⁷ Each of these companies offer tools

3. See Ni Oba, *How Web Democratization Works?*, at <http://www.nioba.com/webdemoc.htm> (Mar. 9, 2000).

4. See Ka-Ping Yee, *The CritLink Mediator*, at <http://crit.org/critlink.html> (Aug. 20, 1999).

5. See The Berkman Center for Internet & Society at Harvard Law School, *Annotation Engine*, at <http://cyber.law.harvard.edu/projects/annotate.html> (Aug. 21, 2001).

6. See generally Annotate Technologies, at <http://www.annotate.net> (last visited Aug. 29, 2002) (discussing available technologies for businesses and consumers).

that both enable their users to see comments to Web sites made by other users possessing the same software, as well as allow users to insert comments of their own.

A. The Benefits of Web Annotation

Web annotation adds a certain degree of value to the vast amount of information available on the World Wide Web. Envision a scenario where a family is planning their summer vacation. Rather than relying on the marketing brochures of countless travel companies, this family goes online with Web site annotation software and reviews notes posted by other like-minded families about specific airlines, hotels, cruise lines, and other vacation-related destinations. In the business setting, Web annotation software allows workers to (1) share comments and analysis of vendor and competitor information found on the Internet; (2) foster group collaboration on projects; and (3) enable Web site owners to increase traffic and “stickiness” by stimulating discussions about comments on their sites.⁸

However, depending on with whom you talk, one either views Web annotation as the great panacea for Internet communication or as a tool for destroying the intellectual property available on the Internet. Annotation enables users to “go to a website and read published commentary about that site without it being filtered through that site’s spin doctors.”⁹ The strongest argument claimed by proponents is that “[t]he goal [of Web annotation] is to enable truth in the web. If anybody can publish anything, it is only fair to allow other people to criticize anything and make these critiques immediately visible for everybody else.”¹⁰

B. The Technology Behind Annotation

The available tools enabling a user to annotate Web sites are based on one of two different technological platforms—browser

7. See Third Voice, at <http://www.thirdvoice.com> (last visited Mar. 15, 2001).

8. See *Annotate Technologies*, *supra* note 6.

9. Peter da Silva, *File 6—Third Voice and CritLink Just Providing Long-Needed Balance* INFOVAR.COM COMPUTER UNDERGROUND DIGEST (June 14, 1999), at http://www.inforwar.com/iwftp/under/Cu11_31.txt.

10. Oba, *supra* note 3.

plug-ins and server based proxy engines. While the technologies and processes behind these two platforms are distinct, the end result is the same—the user is able to insert comments into target Web sites. This Section explores some of the key aspects about the two different technologies.

1. Browser plug-ins

Third Voice and Annotate.net created a downloadable software program that, in effect, plugs in to either the Microsoft Internet Explorer or Netscape Navigator browsers. When a user enters a URL¹¹ into their browser, that URL is sent by the plug-in software to the server of the annotation company. The server then forwards back to the user the “anchor text”¹² to which the annotation is attached, as well as the text of the corresponding annotation/note.¹³ Utilizing a dynamic HTML layer, these software tools allow Web site visitors to superimpose comments on the site’s pages.¹⁴ These comments are then visible only to users who have the annotation plug-in software installed into their Web browser.

11. URL (Uniform Resource Locator) is the unique identifier required to access a resource available on the World Wide Web. For example, the URL of Loyola Law School is <http://www.lls.edu>. See WebGuest Web Glossary, at <http://www.webguest.com/glossu.html> (last visited Aug. 26, 2002).

12. The “anchor text” is the portion of the target Web site’s Web page where the annotations can be affixed. This “anchor text” can be words, phrases, graphs, pictures located on the Web page, or even the entire Web page itself. When a user requests a page from the target Web site, the URL is sent to the servers of the Web annotation company which then forwards back to the user the annotations that correspond with the “anchor text” of that page. See generally *Object Service Architecture, Web Annotation Service*, at <http://www.icc3.com/ec/architecture/webannotations.html> (Sept. 15, 1998) (providing an overview of the technology required for web annotation).

13. Both the ThirdVoice.com and Annotate Technologies software are displayed as a small component on the user’s browser. When a user selects a Web site that has annotations, the annotation software allows that user to see all of the notes affixed to that Web page. See Kaufthal, *supra* note 1; see also Posting of Wes Morgan, *Third Voice, Re: Web Sites Defaced; Webmasters Unaware*, INFOVAR.COM COMPUTER UNDERGROUND DIGEST (June 9, 1999), at http://www.infowar.com/iwftp/under/Cu11_31.txt (commenting on the data transmitted between the annotation software’s client and the servers).

14. See The Global Ideas Bank, *Add Your Comments to Any Site on the Web*, at <http://www.globalideasbank.org/inspir/INS-168.html> (last visited Aug. 29, 2002).

2. Server based proxy engines

In contrast to the browser plug-in, Crit.org and Annotation Engine developed an annotation tool that does not require the user to download software onto their system. To invoke these annotation tools, a user enters into their browser an active proxy address preceding the URL of the Web site they wish to visit.¹⁵ Using Crit.org as an example, once a user enters the active proxy into the browser's address window, the intended Web site's URL is sent to Crit.org. Then the corresponding "anchor text" and annotation notes are sent back to the user through the active proxy, enabling it to add the annotations to the requested Web page prior to it being rendered.¹⁶ The user will then see a Crit.org banner across the top of the Web page, while the collected comments of previous users about that page appear at the bottom. In the middle of the page will be a version of the Web site the user intended to visit, marked with annotation pointers.¹⁷ While this annotation software does not actually modify the intended Web site per se, the actual Web page displayed to the end user is distinctly different from that viewed without an annotation tool.

C. The Problems with Web Site Annotation

The major issue Web site owners and Webmasters have with annotation software is twofold: (1) the presented image of the Web site is altered, and (2) the content of the notes are outside the control

15. See Rohit Khare & Adam Rifkin, *Composing Active Proxies to Extend the Web*, at <http://www.cs.Caltech.edu/~adam/papers/csa98b.html> (Dec. 21, 1997). In the case of the Crit.org annotation tool, the user enters "http://crit.org/" and then the Web site they wish to annotate. If a user wants to annotate Yahoo's home page, they simply enter into the address window of their browser "http://crit.org/http://www.yahoo.com/." Likewise, to utilize the Annotation Engine software to annotate Yahoo's home page, a user would simply enter "http://eon.law.harvard.edu/cite/annotate.cgi?view=http://www.yahoo.com/."

16. See Ka-Ping Yee, *CritLink: Better Hyperlinks for the WWW*, at <http://crti.org/~ping/ht98.html> (Apr. 1998); Ka-Ping Yee, *M1+ Implementation Proposal: Foresight Web Enhancement Project* ch. 4.1, at www.foresight.org/WebEnhance/M1Plus.html (May 26, 1997).

17. For examples of annotated Web pages using Crit.org and Annotation Engine annotation tools see <http://crit.org/http://crit.org/index.html> and <http://eon.law.harvard.edu/cite/annotate.cgi?view=http://cyber.law.harvard.edu/projects/annotate/text.html>, respectively.

of the Web site.¹⁸ Since Web site owners have no control over the annotations made to their sites, “they claim that the ‘graffiti’ violates their proprietary rights”¹⁹ Critics of Web annotation software have attempted to attack these tools on grounds of trademark infringement, copyright infringement, false and deceptive advertising, commercial misappropriation, and other similar claims.²⁰

For an example of the problems created by annotation, one need not look any further than the White House homepage. Utilizing Third Voice software to view www.whitehouse.gov reveals twelve notes ranging from political activism (commenting on Al Gore’s 2000 election campaign and former Yugoslavian leader Slobodan Milosevic) to irrelevant (an advertisement for the latest version of ICQ instant messaging software) to inappropriate (Monica Lewinski sex jokes).²¹

Furthermore, in a preliminary study by a grassroots opposition group to Web site annotation, known as Say No to Third Voice, 340 notes posted on fifteen different Web sites were reviewed. The study revealed that thirty-two percent were chatter having nothing to do with the site’s contents; twenty-eight percent were spam advertising or individual’s advertising their own personal Web sites; and four percent were links to pornographic sites.²² This position has left many content owners and creators fighting to control the substance of their Web sites. As one Web commentator noted, “[o]nce you start . . . modifying things . . . before you know it, you’ve destroyed people’s expressions”²³

18. See *Website Graffiti*, CYBERLAW.NEWS (Spring 2000), at http://www.becker-poliakoff.com/publications/newsletters/cln/spring00/website_graffiti.html.

19. *Id.*

20. *See id.*

21. See Morgan, *supra* note 13 (debunking an article by Patrick Townson that criticizes Web site annotation software).

22. See The Global Ideas Bank, *Say No to Third Voice*, at <http://www.globalideasbank.org/inspir/INS-168.HTML> (last visited Sept. 3, 2002).

23. Jeremy Bowers, *Mozilla Comments*, at [http://irights.edithispage.com/discuss/msgReader\\$192?mode=day](http://irights.edithispage.com/discuss/msgReader$192?mode=day) (Apr. 6, 2000).

III. THE LEGAL ENVIRONMENT

In defining the law applicable to the Internet, it is crucial to provide Internet users, as well as individuals and organizations that have developed Web sites, with appropriate legal remedies to thwart misuse and abuse. Web site annotation software, while an ingenious concept, can be taken too far—especially when the use is non-permissive or exceeds the permissible scope of the Web site's intended use. In searching for this appropriate legal balance, protection can be found in state common law and in federal statutes enacted to foster and control intellectual property and Internet growth.

A. Potential Impact of State Law Theories

There are three traditional state common law theories that have been used to provide Internet companies with some level of legal protection for their Web sites, business models and intellectual property. These theories are: (1) trespass to chattels, (2) misappropriation, and (3) breach of contract. Trespass to chattels is based on a policy which “counsels that the law should be concerned not simply with the investment in collecting information, but also with the investment made to establish and maintain the hardware infrastructure supporting the website.”²⁴ Misappropriation theory provides protection against those who attempt to “free-ride” off the labor and investment of others. Lastly, while breach of contract may provide the simplest remedy, enforcing a “no web annotation” term in a Web site use agreement without more, likely would not provide a strong remedy for the Web site owner. In this Subsection, we will see how each of these theories have fared in recent Internet litigation, and examine the suitability of these theories in combating Web annotation.

1. Trespass to chattels

The most viable state law theory to protect against annotation software is trespass to chattels. To support a trespass to chattels claim against Web annotation companies, a Web site owner has to

24. Maureen A. O'Rourke, *Property Rights and Competition on the Internet: In Search of an Appropriate Analogy*, 16 BERKELEY TECH. L.J. 561, 613 (2001).

prove that the act of annotating was committed by intentionally (1) dispossessing another of their chattel, or (2) using or intermeddling with a chattel in the possession of another.²⁵ To be subject to liability to the Web site owner, the trespasser must have (1) dispossessed the other of the chattel; (2) impaired the chattel as to its condition, quality or value; (3) deprived the possessor of the use of the chattel for a substantial time; or (4) caused bodily harm to the possessor or to some person or thing in which the possessor has a legally protected interest.²⁶

While trespass to chattels is not a novel area of the law, its application to Internet technologies is rather new. This theory's first major success in the context of Internet rights occurred in *eBay, Inc. v. Bidder's Edge, Inc.*²⁷ There, the district court granted eBay a preliminary injunction based on a trespass to chattels theory. The court held Bidder's Edge intentionally and without authorization interfered with eBay's possessory interest in its computer system, and that the unauthorized use proximately resulted in damage to eBay.²⁸ The court found that the automated retrieval of eBay's Web pages and consequent indexing of eBay auctions by a Bidder's Edge program constituted trespass to chattels.²⁹

The court specifically found that "[a] trespasser is liable when the trespass diminishes the condition, quality or value of personal property."³⁰ Even though the queries on eBay's site attributable to Bidder's Edge did not lead to any physical damage, loss of revenue, or reduction in customer base, eBay claimed that Bidder's Edge was "appropriating eBay's personal property by using valuable bandwidth and capacity"³¹ The court found that "the electronic signals generated by the [defendants'] activities were sufficiently tangible to support a trespass cause of action."³²

25. See RESTATEMENT (SECOND) OF TORTS § 217 (1965).

26. See *id.* § 218.

27. 100 F. Supp. 2d 1058 (N.D. Cal. 2000).

28. See *id.* at 1069-72.

29. See *id.*

30. *Id.* at 1071 (citing *CompuServe, Inc. v. Cyber Promotions*, 962 F. Supp. 1015 (S.D. Ohio 1997)).

31. *Id.*

32. *Id.* at 1069 (quoting *Thrifty-Tel v. Bezenek*, 46 Cal. App. 4th 1559, 1566 (1996)).

Beyond the context of electronic interference with eBay's Web site, the court also noted that a trespass can occur when the "activity is sufficiently outside of the scope of the use permitted" ³³ The court, having established that Bidder's Edge was accessing the eBay Web site approximately 100,000 times per day, ³⁴ sufficiently found that Bidder's Edge's activities diminished the quality or value of eBay's computer systems to support a trespass to chattels claim. ³⁵

Similarly, the court in *Register.Com, Inc. v. Verio, Inc.* ³⁶ found on similar facts that Verio's access to Register.com's database by means of an automated search robot was unauthorized, and that Register.com would likely prevail in its trespass claim. ³⁷

Applying these principles to problems presented by Web annotation software, the question turns on whether the software exceeds the scope of the use permitted and whether the use "diminishes the condition, quality or value" of the property. In *eBay, Inc.* and *Register.com, Inc.*, it was apparent that the automated robots used to access eBay's and Register.com's databases diminished the operating capabilities of those companies' servers and Web sites. However, when this theory is applied to Web annotation lawsuits, a different result will most likely occur.

In the case of Web annotation software, the individual using the annotation software will typically request one page from the target Web site's servers. The same effect occurs when the page is requested by an individual who is not using the annotation software. ³⁸ Thus, the impact on the computer system of the target Web site is identical to when the Web site is normally accessed. This does not create a situation of abuse or overuse of the targeted system. Even though the Web annotation software is being used, the net effect on the Web site's servers is the same as if the user did not have the Web annotation software enabled. ³⁹

33. *Id.* at 1070.

34. These requests from Bidder's Edge constituted approximately 1.53% of the requests received by eBay on an average day. *See id.* at 1063.

35. *See id.* at 1071-72.

36. 126 F. Supp. 2d 238 (S.D.N.Y. 2000).

37. *See id.* at 251.

38. *See generally* Oba, *supra* note 3 (discussing the process of Web annotation).

39. *See id.*

This similarity may pose a problem in applying the holdings of *eBay, Inc.* and *Register.com* to the context of trespass by Web annotation software. In *eBay, Inc.*, the court specifically indicated that Bidder's Edge was not prohibited from accessing and utilizing the data present in eBay's databases.⁴⁰ The only restriction was that Bidder's Edge could not use an automated method of querying that data.⁴¹ In *Register.com*, the court held that "[a]lthough Register.com's evidence of any burden or harm to its computer system caused by the successive queries performed by search robots is imprecise, evidence of mere possessory interference is sufficient to demonstrate the quantum of harm necessary to establish a claim for trespass to chattels."⁴² Consequently, the only way in which a trespass claim can succeed against Web annotation is if the broader holding of *Register.com* is adopted.

Finally, the court in *Register.com* alluded to the fact that a trespass claim can succeed without having to prove any interference with the Web site.⁴³ The court based this determination on *CompuServe, Inc. v. Cyber Promotions, Inc.*,⁴⁴ which held the defendants' continued use of CompuServe's systems, after CompuServe gave notice that it no longer consented to the use of its proprietary computer equipment, was a trespass.⁴⁵ However, by looking more closely at the facts of *CompuServe, Inc.*, it is apparent that that case is distinguishable. That court relied heavily on the fact that Cyber Promotions' conduct was interfering with the operations of CompuServe's computer equipment,⁴⁶ and that Cyber Promotions'

40. See *eBay*, 100 F. Supp. 2d at 1073.

41. See *id.*

42. *Register.com*, 126 F. Supp. 2d at 250.

43. See *id.*

44. 962 F. Supp. 1015 (S.D. Ohio 1997).

45. See *Register.com*, 126 F. Supp. 2d at 249 (quoting *CompuServe*, 962 F. Supp. at 1024).

46. Specifically, the court indicated:

"that handling the enormous volume of mass mailings . . . places a tremendous burden on [CompuServe's] equipment [The] . . . mailings demand . . . disk space and drain the processing power of plaintiff's computer equipment, [making] those resources . . . [un]available to serve CompuServe subscribers. Therefore, the value of that equipment . . . is diminished even though it is not physically damaged by defendants' conduct."

CompuServe, 962 F. Supp. at 1022.

president was specifically instructed not to use CompuServe's computer systems to process and store unsolicited e-mails.⁴⁷ In spite of the *Register.com* court's interpretation that a trespass claim can succeed without having to prove any interference, a more detailed reading of *CompuServe, Inc.* shows that interference is necessary.⁴⁸

Although there is precedent for the application of a trespass to chattels theory in the Internet environment, the requisite elements found in *eBay*, *Register.com*, and *CompuServe* are not present in the context of Web site annotation. Specifically, the "interference" created by Web annotation software does not even approach the burdens placed on the systems of *eBay*, *Register.com*, and *CompuServe*. Since the impact of Web annotation is no different than the impact of a user who is not using the annotation software, the courts will be hard-pressed to find that the condition, quality, or value of the annotated Web site's computer systems have been diminished.

2. Misappropriation

Misappropriation is another common law theory potentially available to victims of Web site annotation. Despite the strong possibility of preemption of the misappropriation doctrine by federal copyright law,⁴⁹ the courts in *NBA v. Motorola, Inc.*⁵⁰ and *Pollstar v. Gigmania, Ltd.*⁵¹ held that "hot-news" misappropriation claims⁵² can

47. *See id.* at 1017.

48. The interpretation by the *Register.com* court probably stems from Judge Graham's indication that the use of personal property exceeding consent constitutes a trespass. *See CompuServe*, 962 F. Supp. at 1024. However, Judge Graham's opinion continued that the limitation on the scope of consent requires direct notification to the trespasser and may be ineffectual if communicated indirectly by a posting on the Web site. *See id.* It is in this situation where *Register.com*'s broader holding could apply—where a trespasser who is not causing substantial harm to the system is directly notified to cease their activities. Otherwise, without direct notification it is likely that a user's action would not constitute a trespass.

49. *See* RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 38 cmt. e (1995).

50. 105 F.3d 841 (2d Cir. 1997).

51. 170 F. Supp. 2d 974 (E.D. Cal. 2000).

52. A "hot news" claim was recognized by the Supreme Court in *International News Service v. Associated Press*, 248 U.S. 215 (1918). In *International News Service*, the defendant was a competing news service that copied facts from the bulletin boards and early editions of East Coast AP

survive preemption.⁵³ This enables a court to consider whether providers of Web annotation software act in such a way as to harm the targeted Web site by appropriating that Web site's intangible trade values.⁵⁴ Since the very nature of Web annotation software is built upon the notion of free-riding,⁵⁵ a misappropriation claim will enable the target Web site to prevent Web annotation providers from deriving revenues from advertising or diverting sales from the target Web site.

In *Pollstar*, the district court suggested that concert information available on the Pollstar Web site could be "hot-news" protected under the theory of misappropriation.⁵⁶ Pollstar published up-to-date concert information on its Web site and alleged that Gigmania copied the information from Pollstar's site and placed it on Gigmania's own site.⁵⁷ The court concluded that "Pollstar's common law misappropriation claim was pled with enough sufficiency as a 'hot news' claim."⁵⁸ In determining whether Pollstar's concert information constituted hot-news, the *Pollstar* court relied on *NBA*, which enumerated five elements required to bring a "hot-news" claim not subject to preemption. The required elements are:

- (i) the plaintiff generates or collects information at some cost or expense . . .
- (ii) the value of the information is highly time-sensitive . . .
- (iii) the defendant's use of the information constitutes free-riding on the plaintiff's costly efforts to generate or collect it . . .
- (iv) the defendant's use of the information is in direct competition with a product or service offered by the plaintiff . . .
- (v) the ability of other parties to free-ride on the efforts of the plaintiff would so reduce the incentive to produce the product or service that

newspapers and wired the facts to its customers. *See id.* at 231. The Court held that the defendant's conduct was a common law misappropriation of the AP's property. *See id.* at 247; *see also Pollstar*, 170 F. Supp. 2d at 979.

53. *See NBA*, 105 F.3d at 845; *Pollstar*, 170 F. Supp. 2d at 980.

54. *See* RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 38 (1995).

55. In order for Web annotation to work, there must be a target Web site available to allow the users of Web annotation software to append their comments and advertisements to that target site.

56. *See Pollstar*, 170 F. Supp. 2d at 980.

57. *See id.* at 977.

58. *Id.* at 979-80.

its existence or quality would be substantially threatened⁵⁹

In the *NBA* case, the NBA alleged that Motorola's "SportsTrax" device, which provides updated information of professional basketball games in progress, unlawfully misappropriates the NBA's property by transmitting "real-time" NBA game scores and statistics taken from television and radio broadcasts of games in progress.⁶⁰ The court held that while a "hot-news" claim will survive preemption, the NBA's claim did not satisfy the "hot-news" requirements since Motorola expends its own costs and efforts in gathering the information about each game.⁶¹

Applying the misappropriation analysis to Web annotation, the annotated Web site must establish each of the five elements in order to state a "hot-news" claim not subject to preemption by federal copyright law. The first element, which requires generating or collecting information at some cost or expense, should be relatively easy for most Web site owners to satisfy.⁶² The second element requires that the information is highly time-sensitive. In *Pollstar*, the court tacitly defined "highly time-sensitive" as information that is updated daily.⁶³ Utilizing this standard, any Web site that updates its information on a daily basis can assert that its highly time-sensitive material is being misappropriated. Otherwise, the Web site may have to assert a claim based on federal copyright law.

The third element is undoubtedly satisfied since the very nature of Web annotation software is to free-ride on the work of the targeted Web site. This software enables the target Web site's Web page to be re-rendered with annotations that may include comments, advertisements, and links to competitor Web sites. The basis of this software is the ability to take advantage of another Web site's Web pages for the benefit of the users of the annotation software.

59. *NBA*, 105 F.3d at 852 (citations omitted).

60. *See id.* at 843-44.

61. *Id.* at 854.

62. In 1999, The Gartner Group estimated that the average cost of developing and launching an enterprise Web ecommerce site was \$1 million. According to the report, the range of dollars spent on Web sites was from \$300,000 to over \$5 million. *See* David Legard, *Average Cost to Build E-commerce Site: \$1 Million*, IDG (May 31, 1999), at http://idg.net/crd_idgsearch_757179.html.

63. *Pollstar*, 170 F. Supp. 2d at 979-80.

In considering the fourth element, at first glance, Web site annotation does not seem to be in direct competition with most of the Web sites available on the Internet. The goal of the Web annotation company is to enable users to annotate the target Web site, whether it is an e-commerce site or an information portal. However, under the following scenario a Web site annotation company could be in direct competition with the target. If the annotator inserts annotations onto the target Web site that diverts Web traffic from the target Web site to a competitor's Web site, this fourth element will be satisfied.⁶⁴

The fifth and final element in establishing a "hot-news" misappropriation claim requires that because of the free-riding conduct of the annotator, the incentive to produce the product or service is impaired so that its existence or quality would be substantially threatened.⁶⁵ In *International News Service*, the Court indicated that "[International News Service's conduct] would render [AP's] publication profitless, or so little profitable as in effect to cut off the service by rendering the cost prohibitive in comparison with the return."⁶⁶ For a "hot-news" misappropriation claim to succeed, the annotated Web site must be able to allege a significant economic impact.

When applied to the Web site annotation setting, the likelihood of a misappropriation claim succeeding is highly dependent on the circumstances of that particular case. The courts have taken a narrow reading as to what type of claim qualifies as "hot-news"⁶⁷ and thus not subject to federal preemption. Therefore, the only situation where a misappropriation claim against a Web annotation software provider will succeed is when the nature of the annotations are in direct competition with the target Web site, and those annotations significantly impact the profitability of the targeted Web site.

64. Web annotation companies like Annotate Technologies provide the user not only with comments posted by other users, but also with recommendations of other Web sites that are better suited for the user than the one they are currently viewing. See <http://www.annotate.net> for additional services available to users of their software.

65. *NBA*, 105 F.3d at 852.

66. *Int'l News Service*, 248 U.S. at 241.

67. *NBA*, 105 F.3d at 851-52.

3. Breach of contract

A common law breach of contract theory is likely to provide Web site owners with some protection against Web site annotation. This protection can be accomplished by requiring that all users agree to terms and conditions that restrict certain uses of the Web site. For example, eBay, Inc. has both posted on its Web site and implemented into the registration process a User's Agreement specifically prohibiting the use of robots, spiders, or any other automated process to copy or monitor eBay's Web pages.⁶⁸ If a user does not assent to the contract terms, the registration process is terminated. The implementation of a provision against Web site annotation may be sufficient to allow victims of annotation to pursue a breach of contract claim.

Like eBay's prohibition against automated data retrieval, a company that does not want to be subjected to Web annotation could include within its user agreement something similar to the following provision: "Use of Web annotation software to edit, append, modify, change, or otherwise alter the Web pages and content contained herein is expressly prohibited." The company can post the User Agreement on its Web site, and if the company has a registration process, this Agreement can be incorporated within that process.

68. The following provision taken from eBay's User Agreement specifically prohibits use of automated processes to copy or monitor information contained on eBay's Web pages.

ACCESS AND INTERFERENCE.

Our web site contains robot exclusion headers and you agree that you will not use any robot, spider, other automatic device, or manual process to monitor or copy our web pages or the content contained herein without our prior expressed written permission. You agree that you will not use any device, software or routine to bypass our robot exclusion headers, or to interfere or attempt to interfere with the proper working of the eBay site or any activities being conducted on our site. You agree that you will not take any action that imposes an unreasonable or disproportionately large load on our infrastructure. Much of the information on our site is updated on a real time basis and is proprietary or is licensed to eBay by our users or third parties. You agree that you will not copy, reproduce, alter, modify, create derivative works, or publicly display any content (except for Your Information) from our website without the prior expressed written permission of eBay or the appropriate third party.

EBAY, *User Agreement*, at <http://pages.ebay.com/help/community/png-user.html> (last visited Sept. 4, 2002).

While this seems like a simple solution to combat the invasive nature of Web site annotation, this approach is not without its share of problems.

The first problem may arise in situations where the User Agreement is part of the registration process. Typically, if the user assents to the agreement, an issue should not arise; however, the user may claim that they were unaware of the term and therefore not bound by it. In these situations, the courts have typically held that by clicking "I agree" or the like, the user has adequate notice of the terms of the agreement regardless of whether he actually viewed the entire agreement.⁶⁹

Web sites in which the User Agreement is merely present on the Web site may pose a second problem. In these situations, the courts may not be as willing to enforce the provisions of the contract. For example, in *CompuServe v. Cyber Promotions*, the court indicated that "CompuServe's policy statement, insofar as it may serve as a limitation upon the scope of its consent to the use of its computer equipment, may be insufficiently communicated to potential third-party users when it is merely posted at some location on the network."⁷⁰

In comparison, the court in *eBay, Inc.* indicated that it would be willing to find that including "robot exclusion headers" in the hypertext of the Web page could give rise to a breach of contract claim.⁷¹ In that case, the contract terms took effect despite the fact that the restrictive terms were not accessible to anybody except for an automated computer program "bot." Thus, under *eBay*, it is more likely that a court would uphold a Web site's anti-annotation contract terms against a Web annotator's violation of those terms.

During 2000-2001, the Electronic Commerce Subcommittee of the Cyberspace Law Committee of the Business Law Section of the American Bar Association initiated a Working Group on Electronic Contract Practices to analyze the current electronic commerce

69. See, e.g., *Caspi v. Microsoft Network L.L.C.*, 732 A.2d 528 (1999) (holding the medium of presentation on the Web is no less reasonable than if the clause was included in the fine print of a paper contract and that a party enters into a binding contract when they click "I Agree.").

70. *CompuServe*, 962 F. Supp. at 1024.

71. *eBay*, 100 F. Supp. 2d at 1061. By using "robot exclusion headers" within the Web pages, a Web site owner could effectively prohibit the use of robots by another to access that Web site's content.

contracting practices and develop a set of strategies designed to avoid disputes about the validity of the electronic assent process.⁷² Some of the recommendations applicable to Web annotation include: (1) forcing the user to see the terms prior to assent;⁷³ (2) requiring assent prior to gaining access to the Web site;⁷⁴ (3) ensuring the format and content of the terms comply to the applicable laws of notice;⁷⁵ (4) including disclosure language, conspicuousness, and other format requirements;⁷⁶ (5) ensuring the process uses clear words and a clear method of assent or rejection;⁷⁷ and (6) providing for the retention of the record by the company and by the user.⁷⁸ The Working Group found that the vast majority of cases in which the User Agreement was upheld involved a registration mechanism in securing the user's assent.⁷⁹

A breach of contract cause of action may provide a Web site which has fallen victim to Web annotation with some form of relief. Based on the research and analysis performed by the Working Group, the strongest claim for breach of contract is when the plaintiff's Web site has a process by which each user is required to clearly and unambiguously assent to each term of the User Agreement. However, as alluded to in *eBay*, not having a registration process will not be fatal to a breach of contract claim. This area of law provides the simplest and easiest way for an individual or a company to protect against Web annotation. While the e-commerce and Internet aspects of a breach of contract claim are still being developed, the benefits of this protection to the Web site far outweigh its costs.

72. For the final report submitted by the Working Group, see Christina L. Kunz et al., *Click-Through Agreements: Strategies for Avoiding Disputes on Validity of Assent*, 57 BUS. LAW. 401 (2001).

73. *See id.* at 402.

74. *See id.* at 405.

75. *See id.* at 408.

76. *See id.*

77. *See id.* at 411-12.

78. *See id.* at 417-19.

79. *See id.* at 425-28 for a summary of case law on Internet-based user agreements.

B. Potential Impact of Federal Law Claims

There are also three possible areas of federal law that can provide Web site owners with some level of protection against Web site annotators. These areas are (1) copyright infringement, (2) violation of the copyright provisions under the Digital Millennium Copyright Act, and (3) violation of the Computer Fraud and Abuse Act. In this subsection, we will examine how each theory has fared in recent Internet litigation and how suitable these theories are to protecting against Web annotation.

1. Copyright

The introduction of the Internet has presented many new challenges to existing copyright laws. Through Internet Web pages, a user can reproduce copyrighted works and distribute them with complete ease and anonymity.⁸⁰ With Web site annotation, when a user annotates a Web page, the provider of the Web annotation software is potentially liable for copyright infringement. This is because such software takes the target Web page and marks it with the annotation notes stored on the annotation company's servers and redistributes it to the annotation software user. This action is in direct violation of section 106 of the Copyright Act, which confers to a copyright owner the exclusive rights to reproduce, prepare derivative works of, distribute, publicly perform, and publicly display the copyrighted work.⁸¹ A violation of one or more exclusive rights of the copyright owner constitutes copyright infringement.⁸² However, there are a few limitations to copyright infringement liability, including the fair use defense and whether the infringing material constitutes a derivative work.⁸³

80. See John F. Delaney & William I. Schwartz, *The Law of the Internet: A Summary of U.S. Internet Caselaw and Legal Developments*, in *E-COMMERCE: STRATEGIES FOR SUCCESS IN THE DIGITAL ECONOMY 2000* 29 (Craig W. Harding & Christine A. Varney eds., 2000).

81. See 17 U.S.C. § 106 (2000).

82. See *id.* § 107.

83. See *id.* §§ 107, 117 (establishing the fair use defense and its application towards computer programs).

a. copyright infringement by users

In order to successfully assert a copyright infringement claim, the plaintiff must prove both its ownership of a valid copyright and that the defendant has copied protected elements of the copyrighted work.⁸⁴ Most importantly, the plaintiff must also assert that the defendant's use of those copies violates section 106 of the Copyright Act.⁸⁵

The first element, that the plaintiff has ownership of a valid copyright, is met if the work is an original, a work of authorship, and is fixed in a tangible medium of expression.⁸⁶ A work is an original if it is independently created and is not copied from some other work.⁸⁷ A work of authorship is defined by section 102 of the Copyright Act and includes, *inter alia*, (1) literary works; (2) pictorial, graphic and sculptural works; and (3) motion pictures and other audiovisual works.⁸⁸ Lastly, a work is fixed in a tangible medium of expression when its embodiment is sufficiently permanent to permit it to be perceived, reproduced or otherwise communicated for a period of more than transitory duration.⁸⁹ Applying these requirements in asserting ownership of a valid copyright does not pose a problem in the context of Internet Web pages. A Web page is generally independently created, qualifies as either a literary, pictorial, graphic or an audiovisual work, and is sufficiently "fixed" in a tangible medium—i.e., the copyright owner's Internet servers.

The second element for asserting a copyright infringement claim is met if the plaintiff can prove that the defendant has copied protected elements of the copyrighted work in violation of section 106 of the Copyright Act, which provides copyright owners with the

84. See G. PETER ALBERT, JR. & LAFF, WHITESEL & SARET, LTD., *INTELLECTUAL PROPERTY LAW IN CYBERSPACE* 246 (1999).

85. See *id.* Under section 106, the copyright owner has the exclusive rights to reproduce the copyrighted work, prepare derivative works, publicly display the copyrighted work, and distribute the work by sale or other transfer of ownership. See 17 U.S.C. § 106.

86. See 4 MELVILLE B. NIMMER ET AL., *NIMMER ON COPYRIGHT* § 13.01[A], 13-16 (2002).

87. See *Feist Publ'ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 345 (1991).

88. See 17 U.S.C. § 102.

89. See *id.* § 101.

rights to distribute, reproduce and publicly display their copyrighted works.⁹⁰ An act of copying occurs, in the context of the Internet, whenever there is a transmission of a computer file that represents the copyrighted work.⁹¹

The Ninth Circuit, in *Mai Systems Corp.*,⁹² has held that “copying,” for the purposes of copyright law, occurs when a computer file is transferred from a permanent storage device to a computer’s random access memory.⁹³ In that case, the court held that the simple act of loading copyrighted software into a computer’s RAM memory constituted the creation of an infringing copy.⁹⁴ The court in *Sega Enterprises Ltd.*,⁹⁵ took a similar position and held that the copying of video games from the defendant’s bulletin board system constituted an infringing act.⁹⁶ Likewise, other courts have held that the act of uploading or downloading a computer file and the transfer/storage of computer files onto a computer’s hard drive constitutes copying.⁹⁷

The court in *Playboy Enterprises, Inc. v. Webworld, Inc. (Webworld II)*⁹⁸ found Webworld liable for copyright infringement because of its ScanNews software program.⁹⁹ This program scanned various adult-oriented “newsgroups” searching for sexually explicit images.¹⁰⁰ The program would then upload the pictures, which included Playboy images, from these “newsgroups” and provide them to customers as a monthly fee-based service.¹⁰¹ Webworld argued that it could not be held liable for copyright infringement because it was merely acting as a passive conduit of unaltered

90. *See id.* § 106.

91. *See* ALBERT, *supra* note 84, at 247.

92. *Mai Sys. Corp. v. Peak Computer, Inc.*, 991 F.2d 511 (9th Cir. 1993).

93. *See id.* at 518.

94. *See id.*

95. *Sega Enters. Ltd. v. Accolade, Inc.*, 977 F.2d 1510 (9th Cir. 1992).

96. *See id.* at 1519.

97. *See, e.g., Marobie-FL, Inc. v. Nat’l Ass’n of Fire Equip. Distribs.*, 983 F. Supp. 1167 (N.D. Ill. 1997) (holding that the placement of copyrighted clip-art files on Web site available for users to download constitutes copyright infringement); *Cent. Point Software, Inc. v. Nugent*, 903 F. Supp. 1057 (E.D. Tex. 1995) (“Plaintiffs may establish copying if they can demonstrate that the software has been reproduced in a computer’s memory without permission.”).

98. 991 F. Supp. 543 (N.D. Tex. 1997).

99. *See id.* at 561-62.

100. *See id.* at 549-50.

101. *See id.*

information.¹⁰² The foundation of its argument was that the pictures were readily available in public “newsgroups,” and as such, Webworld merely provided access to those “newsgroups.”¹⁰³ The court found this argument unavailing stating, “Webworld functioned primarily as a store, a commercial destination within the Internet. Just as a merchant might re-package and sell merchandise from a wholesaler, so did Webworld re-package . . . and sell images it obtained from the various newsgroups.”¹⁰⁴ Through the use of its ScanNews software, Webworld took “affirmative steps to cause the copies to be made.”¹⁰⁵

The problem in applying the rationale of these cases to Web site annotation technologies is that the companies providing the annotation software do not actually store the target Web pages on their own servers. The functional model, for both the browser plug-in¹⁰⁶ and the server based proxy engine¹⁰⁷ annotation tools, simply combines the target Web page requested by the user with the annotation text that is stored on the Web servers of the annotation software company.¹⁰⁸ If the annotated Web page was stored on the annotation company’s Web site, similar to the storage of video games in *Sega Enterprises* or digital photographs as in *Webworld II*, the case for copyright infringement would be clear-cut. In the case of Web site annotation, however, since “these technologies do not themselves copy or make available for download any of the [target] Web sites’ copyrighted code or images, they likely do not directly infringe the [target] Web sites’ reproduction or display rights.”¹⁰⁹ However, the fact that the annotation commentaries are

102. *See id.* at 552-53.

103. *See id.*

104. *Id.* at 552.

105. *Id.*

106. *See supra* Part II.B.1.

107. *See supra* Part II.B.2.

108. The browser plug-in technology requires the user to download software onto their personal computer in order to enable Web site annotation. When a user requests a specific Web page—for example, <http://www.yahoo.com/>—the user’s browser requests the Web page from Yahoo and the “plugged-in” annotation software requests the annotations that are associated with the “www.yahoo.com” URL from the annotation software company’s Web servers. The two streams of data are then combined and are presented as one Web page, albeit disfigured from the annotation markers. *See Morgan, supra* note 13.

“fixed” and stored on the Web servers of the annotation company, coupled with the fact that the combined work of Web page and annotations appear in RAM, might be sufficient to establish a claim of copyright infringement.

b. derivative works

In addition to the violation of the rights of distribution, public display, and reproduction, a company that has been annotated can claim that its right to create a derivative work from its copyrighted work has been violated. A copyright owner has the exclusive right to create derivative works and may bring an infringement action against those who produce unauthorized derivative works.¹¹⁰ The Copyright Act defines a derivative work as “a work based upon one or more preexisting works, such as a translation . . . abridgment, condensation, or any other form in which a work may be recast, transformed, or adapted.”¹¹¹ Some examples of commonly recognized derivative works include movies based on books,¹¹² translation of works from one language to another,¹¹³ and new arrangements of existing musical works.¹¹⁴ However, the definition further states that “[a] work consisting of editorial revisions, annotations, elaborations, or other modifications which, as a whole, represent an original work of authorship, is a ‘derivative work.’”¹¹⁵ It is the expansive net cast by this last sentence of the definition that could possibly subject Web site annotators to liability under copyright infringement.

Web annotation software creates small alterations to the underlying Web page. Many Web site owners, depending on the scope and amount of annotation, view this situation as a substantial modification of their Web sites.¹¹⁶ These modifications can cause

109. Aaron Rubin, *Are You Experienced? The Copyright Implications of Web Site Modification Technology*, 89 CAL. L. REV. 817, 831 (2001).

110. See 17 U.S.C. §§ 106(2), 501(a).

111. *Id.* § 101.

112. See *Kalem Co. v. Harper Bros.*, 222 U.S. 55 (1911).

113. See *Grove Press, Inc. v. Greenleaf Publ'g Co.*, 247 F. Supp. 518 (E.D.N.Y. 1965).

114. See *Mills Music, Inc. v. Snyder*, 469 U.S. 153 (1985).

115. 17 U.S.C. § 101.

116. See discussion on the problems with Web site annotation, *supra* Part II.C.

the annotated Web page to become an infringing derivative work. While no court has directly addressed this issue with regards to Web site annotation, the courts have addressed the similar issue of “framing.”¹¹⁷

In *Futuredontics, Inc. v. Applied Anagramics, Inc.*,¹¹⁸ a case involving framing, the court found that the owner of an Internet-based dental referral business created a Web site consisting of numerous Web pages that contained copyrightable graphics and text.¹¹⁹ In that case, Applied Anagramics reproduced Web pages from the Futuredontics’ Web site within a “frame” that also included the logo of, and information about, Applied Anagramics, as well as links to other Applied Anagramics Web sites.¹²⁰ Futuredontics sued Applied Anagramics for copyright infringement, alleging that the framed link created a derivative work in violation of Futuredontics’ exclusive right to create such derivative works under the Copyright Act.¹²¹ Applied Anagramics moved to dismiss the copyright infringement claim on the ground that the framed Web page did not constitute an unauthorized derivative work.¹²² The district court disagreed with Applied Anagramics and denied its motion to dismiss Futuredontic’s copyright infringement claim.¹²³

Unfortunately, this case provides little guidance in this emerging area of the law. The Futuredontics case is the first case involving the context of framing, and because the court was ruling solely on the plaintiff’s motion for a preliminary injunction and the defendant’s motion to dismiss, which were both denied, the decision merely provides an indication that the court might rule that framing amounts to infringement.¹²⁴

117. Frames are multiple, independently scrollable panels displayed on a single screen, each of which can contain many elements including text, hypertext, graphics, scrollable regions, other frames, and other Web sites. See Rubin, *supra* note 109, at 821 n.13.

118. No. CV 97-6991 ABC (MANx), 1998 U.S. Dist. LEXIS 2265 (C.D. Cal. 1998).

119. See *id.* at *3-4.

120. See *id.*

121. See *id.* at *4.

122. See *id.* at *2, 7.

123. See *id.* at *10-11.

124. See Lydia Pallas Loren, *The Changing Nature of Derivative Works in the Face of New Technologies*, 4 J. SMALL & EMERGING BUS. L. 57, 70 (2000).

Although this is a novel area of law, it is very possible that the courts will be willing to hold that the practice of framing violates the derivative works doctrine. If the courts are willing to find that the act of framing, which merely redisplayes the Web site alongside other Web content, violates the copyright owner's right to prepare derivative works, then the courts will undoubtedly hold that Web annotation, which completely alters the content and appearance of the Web site, is not protected under the derivative works doctrine.

c. the fair use defense

The doctrine of fair use allows for the reasonable use of copyrighted material without the consent of the copyright owner.¹²⁵ 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.¹²⁶

In examining the first factor, purpose and character of use, a court will consider whether the new work is transformative and whether the use has a commercial or noncommercial purpose.¹²⁷ Web annotation software may not meet the requirements of the first factor since it enables users to insert advertisements, price comparisons, product reviews, and links to other Web sites under the "guise" of annotation commentaries. While a finding that the work is transformative, or that it is used for a commercial purpose, weakens the fair use defense, it is not completely dispositive.¹²⁸ Examination of the remaining factors is required.¹²⁹

Under the second factor, the courts will examine the nature of the copyrighted work.¹³⁰ The scope of fair use considerably narrows

125. See 17 U.S.C. § 107.

126. See *id.*

127. See Susan Kim, *Selling Spray Paint in Cyberspace: Applying the Fair Use Defense to Inline Note Service Providers*, 34 U.C. DAVIS L. REV. 809, 821 (2001). "A work is transformative if it adds new expression, meaning, or message to the original work rather than merely superseding or supplanting the original." *Id.*

128. See *id.* at 822.

129. See *id.* at 823.

130. See 17 U.S.C. § 107(2).

when applied to unpublished works.¹³¹ Generally, unpublished works receive greater protection because copyright law recognizes authors' rights to control the first appearance of their expression.¹³² On the other hand, substantial quotes taken from a published work may qualify as a fair use.¹³³ Considering that the underlying copyrighted work is a Web page produced and available for the whole world to see, the courts will undoubtedly find that this factor of the fair use doctrine is satisfied.

The courts will consider as a third factor the substantiality of the portion used with respect to the copyrighted work.¹³⁴ Courts evaluate both the quantity and quality of the copyrighted materials used.¹³⁵ However, an insubstantial use does not presumptively render a fair use finding.¹³⁶ "In order to be fair, the use also must not appropriate the 'heart' of a work with only minor changes or additions."¹³⁷ This is because "[a] use that takes the heart of an original work may be unfair if it fulfills the demand for the original."¹³⁸

It is this last point which causes the greatest problems for Web annotation software and the fair use defense. Individuals use Web annotation software to view notes, comments, links to other Web sites, and commercial offers that are annotated to another's Web site. As Web annotation proliferates, the demand for these "marked up" Web pages will continue to increase, while the demand for the original work will diminish. The usurping of the demand of the original work will limit the Web annotator's fair use defense.

The last factor examines whether the use of a work results in an adverse impact on the potential market of the original work.¹³⁹ Generally, a use that diminishes potential sales, interferes with marketability, or usurps the market of an original work constitutes an

131. See Kim, *supra* note 127, at 823.

132. See *Harper & Row Publishers, Inc. v. Nation Enters.*, 471 U.S. 539, 564 (1985).

133. See *id.*

134. See 17 U.S.C. § 107(3).

135. See *Campbell v. Acuff-Rose Music, Inc.*, 510 U.S. 569, 587 (1994).

136. See *id.*

137. Kim, *supra* note 127, at 825 n.113 (summarizing *Campbell*, 510 U.S. at 586-89; *Harper & Row*, 471 U.S. at 565-66).

138. *Id.* (summarizing *Campbell*, 510 U.S. at 590-92; *Harper & Row*, 471 U.S. at 566-69).

139. See 17 U.S.C. § 107(4).

economic harm to the original.¹⁴⁰ In particular, a market substitute that directly competes for a share of the original work's market cuts against a finding of fair use.¹⁴¹

Web annotation software can impair the economic value of the original work. If, for example, the underlying Web site is an e-commerce site, Web annotation advertising competitors can draw the potential shopper away from the underlying Web site to their sites depicted in the annotations. Furthermore, users will be more likely to surf the Web looking for annotated versions of Web sites rather than the unmarked version. This demand for annotations directly usurps the demand for the original work.

When the four factors are examined together, a Web annotation company's use of another Web site's pages may constitute valid fair use; however, the first and last factors provide the strongest challenge to the fair use defense.

2. The Digital Millennium Copyright Act

In 1998, Congress enacted the Digital Millennium Copyright Act (DMCA) primarily to implement the treaties signed in December 1996 at the World Intellectual Property Organization (WIPO) Geneva conference,¹⁴² but also to provide protection against the infringement of digitally transmitted works, and to pave the way for increased Internet distribution of copyrighted works.¹⁴³ One of the key provisions of the DMCA makes it illegal to "circumvent a technological measure that effectively controls access to a work protected" by copyright.¹⁴⁴ However, the DMCA does limit the potential copyright infringement liability of those who engage in the process of reproducing and making that material available to their users.¹⁴⁵

140. See *Sega Enters. v. Accolade, Inc.*, 977 F.2d 1510, 1523 (9th Cir. 1993).

141. See *Campbell*, 510 U.S. at 591; *Harper & Row*, 471 U.S. at 568.

142. See Brian Paul Menard, *And the Shirt off Your Back: Universal City Studios, DECSS, and the Digital Millennium Copyright Act*, 27 RUTGERS COMPUTER & TECH. L.J. 371, 376 (2001).

143. See William Sloan Coats et al., *They Are Playing Our Song Again: New Proposals to Amend the Copyright Act*, BULL. OF LAW/SCIENCE & TECH., Jan. 2002 at 5.

144. See 17 U.S.C. § 1201(a)(1)(A).

145. Jeffery P. Cunard et al., *Copyright, in* INTERNET AND ONLINE LAW

Applying the DMCA to Web site annotation may provide a potential attack for the victims of Web site annotation to assert against those responsible for providing the software or the services that enables such annotation. The only requirement is that the target Web site employ some type of mechanism designed to control access to the copyrighted works.

Under the DMCA, “‘circumvent[ing] a technological measure’ means to descramble a scrambled work, to decrypt an encrypted work, or otherwise to avoid, bypass, remove, deactivate, or impair a technological measure, without the authority of the copyright owner.”¹⁴⁶ The Act further explains that a “‘technological measure ‘effectively controls access to a work’ if the measure, in the ordinary course of its operation, requires the application of information, or a process or a treatment, with the authority of the copyright owner, to gain access to the work.”¹⁴⁷ The problem the DMCA presents in the Web site annotation context is that most Web sites “do not use access control measures [as defined by] the DMCA, in part because such steps would discourage entry by welcome, as well as unwanted, visitors.”¹⁴⁸ If the target Web site employs a control mechanism that sufficiently falls within the scope of the DMCA, such as registering users or using password protected Web site access, then those Web sites may state a viable claim against those responsible for the annotation.

However, there is one possibility for limiting the liability of the Web site annotator that does need to be addressed. The DMCA limits the liability of “service providers¹⁴⁹ for acts of infringement committed through use of their facilities.”¹⁵⁰ The Act provides that a service provider is not liable if:

- (1) the transmission of the material was initiated by or at the direction of a person other than the service provider;
- (2)

§6.09[7] (Kent D. Stuckey ed., 2000).

146. 17 U.S.C. §1201(a)(3)(A).

147. *Id.* §1201(a)(3)(B).

148. O’Rourke, *supra* note 24, at 583-84.

149. A service provider as defined by 17 U.S.C. §512(k)(1)(A) “means an entity offering the transmission, routing, or providing of connections for digital online communications, between or among points specified by a user, of material of the user’s choosing, without modification to the content of the material as sent or received.”

150. Delaney, *supra* note 80, at 20.

the transmission, routing, provision of connections, or storage is carried out through an automatic technical process without selection of the material by the service provider; (3) the service provider does not select the recipients of the material except as an automatic response to the request of another person; (4) no copy of the material made by the service provider in the course of such intermediate or transient storage is maintained on the system or network in a manner ordinarily accessible to anyone other than anticipated recipients, and no such copy is maintained on the system or network in a manner ordinarily accessible to such anticipated recipients for a longer period than is reasonably necessary for the transmission, routing, or provision of connections; and (5) the material is transmitted through the system or network without modification of its content.¹⁵¹

The limitation of liability provided under the Act would presumably not apply to the provider of the Web site annotation service. For Web site annotation to work, it requires a service provider to serve as a repository for the annotations and as a provider of those annotations when a user requests the corresponding Web page from the annotated Web site.¹⁵² Under this arrangement, the service provider selects the material to be displayed in violation of section 512(a)(2) and stores the material on its systems in violation of Section 512(a)(4). Furthermore, the material is modified when displayed on the computer of the user requesting the annotations, presumably in violation of section 512(a)(5).

Since the limitation of liability for service providers specified in Section 512(a) apparently does not apply to providers of Web site annotation services, the DMCA may provide a viable remedy for Web sites that control access to their Web pages in an effort to protect against Web site annotation.

3. The Computer Fraud and Abuse Act

The Computer Fraud and Abuse Act (CFAA) was primarily intended to address hacking by individuals attempting to gain access

151. 17 U.S.C. § 512.

152. *See supra* Parts II.B.1, II.B.2.

to private and confidential information.¹⁵³ However, the scope of the Act is much more expansive. The CFAA holds individuals criminally and civilly liable if they “intentionally access[] a computer without authorization or [they] exceed[] authorized access, and thereby obtain[] information from any protected computer.”¹⁵⁴ In order to prevail in a civil action, the injured party must suffer “damage” causing a loss aggregating at least \$5,000 in value.¹⁵⁵

The court in *Register.com* held Verio’s unauthorized searching of Register.com’s databases with automated software constituted a violation of section 1030(a)(5)(C) of the CFAA.¹⁵⁶ “Section 1030(a)(5)(C) requires Register.com to show that Verio intentionally accessed its computer without authorization *and thereby caused damage*.”¹⁵⁷ The court found that Register.com sufficiently “demonstrated that Verio’s unauthorized use of search robots to harvest . . . information from Register.com’s . . . database” caused damage in the form of Register.com’s diminished server capacity.¹⁵⁸ Additionally, the court noted that “[i]f the strain on Register.com’s resources generated by robotic searches becomes large enough, it could cause Register.com’s computer systems to malfunction or crash.”¹⁵⁹ The court continued, “[s]uch a crash would satisfy § 1030(a)(5)(C)’s threshold requirement that a plaintiff demonstrate \$5000 in economic damages resulting from the violation, both because of costs relating to repair and lost data and also because of lost good will based on adverse customer reactions.”¹⁶⁰

Despite the far reaching nature of this Act, the likelihood that a Web annotation claim will succeed under it is remote. In attempting to raise a successful claim, the annotated Web site would encounter

153. See S. REP. NO. 104-357, at 3 (1996).

154. 18 U.S.C. § 1030(a)(2)(C) (2000). The term “protected computer” refers to any computer that is used in interstate or foreign commerce or communication. *Id.* § 1030(e)(2)(B). “Exceeding authorized access” refers to accessing a computer with authorization and to use such access to obtain or alter information in the computer that the accessor is not entitled to obtain or alter. *Id.* § 1030(e)(6).

155. *Id.* § 1030(e)(8). “Damage” is defined as “any impairment to the integrity or availability of data, a program, a system, or information.” *Id.*

156. See *Register.com*, 126 F. Supp. 2d at 251-52.

157. *Id.* at 251 (emphasis added).

158. *Id.*

159. *Id.* at 252.

160. *Id.*

the difficult task of proving damages. In both *Register.com* and *eBay*, the impact on both Register.com's and eBay's servers caused sufficient damage when valuable system resources became unavailable for authorized Internet traffic. In the context of Web site annotation, the Web site being annotated would be unable to assert a similar claim since the effect on the target Web site's servers and networking infrastructure would not experience a jump in transaction requests. Thus, there would be no diminution of available bandwidth of the magnitude experienced in *Register.com* or in *eBay*.¹⁶¹ The only damage an annotated Web site could claim would stem from the infringement of its copyrighted works, which presents an extraordinary difficulty in terms of assessing a monetary value for damages.

IV. WHERE WEB ANNOTATION IS HEADING

Until now, the Web annotation market has been pioneered by a few entrepreneurial Internet startups. The ground paved by companies like ThirdVoice, CritLink, uTok and others has by no means gone unnoticed. In the first half of 2001, computer industry giant Microsoft announced that it would be implementing a product dubbed "Smart Tags" in its Internet Explorer Web browser.¹⁶² Smart Tags, like the infamous Third Voice plug-in, results in viewers seeing sites in a manner not intended by the Web site owners or Webmaster.¹⁶³

Over sixty percent of Internet households use Microsoft's Internet Explorer Web browser, in stark contrast to the miniscule amount of users that have downloaded all of the other Web annotation software combined.¹⁶⁴ Microsoft's proliferation of its Web browser will all but ensure that Web annotation will be the next "killer application" of the Internet.

161. See *supra* note 34 and accompanying text.

162. See Isaac Forman, *Microsoft Implementing 'Smart Tags' in IE Release*, at http://www.evolt.org/article/microsoft_implementing_smart_tags_in_ie_release/1/11252/index.html (June 7, 2001).

163. See *id.*

164. For an up-to-date monthly analysis of Internet browser statistics see <http://browserwatch.internet.com/stats/stats.html>. On February 20, 2002, 62.2% of Internet surfers used Microsoft's Internet Explorer compared to 17.5% for Netscape Navigators and 11.6% for Opera. See *id.*

Fortunately, Microsoft recently decided to pull Smart Tags from the final release of Internet Explorer 6.0.¹⁶⁵ While the Internet-using world has been granted a reprieve from the mass availability of Web annotation tools, it will be short-lived as Microsoft prepares to implement this technology in future releases of its products. With such a magnitude of users, the legal community can expect increased litigation as Internet surfers become Internet graffiti artists, marking up Web sites of individuals and companies.

V. CONCLUSION

When the Internet first made its debut in the early to mid-1990s, nobody could have predicted that within five years a user would be able to download any music file they wanted, bid on an auction at a site with over 10 million listings, or receive real-time news information, stock quotes, and email through their mobile phones and PDAs. In the not-so-distant future, we will once again be amazed at the new capabilities afforded by Website annotation technologies. Today, people quickly jump onto the Internet when a major news story breaks, surf the Web looking for the latest information about the events of the day, send instant messages to their friends, and participate in online chat rooms. The next logical extension of Internet usage is to provide the user with a mechanism for commenting on, and communicating their views and opinions about, individual Web sites and those sites' content.

As the law catches up with this technology, the likelihood that traditional theories—trespass to chattels, misappropriation and breach of contract—will provide remedies for those who fall victim to Web site annotation is small. The difficulty with trespass to chattels is that the victim of Web site annotation does not suffer the type of “trespass” that the courts have found actionable. The mechanics of Web site annotation do not possess the same interference which existed in *eBay* and its progeny.¹⁶⁶

A misappropriation claim will only be available to those victims that can assert a “hot-news” type of claim as defined in *Pollstar* and

165. See Posting of bmason, *evolt@accessbleinter.net*, *Smart Tags dropped* (June 18, 2001), at http://www.evolt.org/article/microsoft_implementing_smart_tags_in_ie_release/1/11252/index.html (comment on Microsoft implementing ‘Smart Tags’ in Internet Explorer 6.0 release).

166. See discussion *supra* Part III.A.1.

NBA. For most Web sites, the information will need to be highly time-sensitive, the provider of the Web site annotation service must be in direct competition with the annotated Web site, and the annotated Web site must demonstrate economic harm. For a vast majority of Web sites, this will be a difficult proposition at best.¹⁶⁷

In the context of breach of contract, a simple term included in the User Agreement prohibiting annotations may suffice. However, the court in *CompuServe* hinted at the ineffectiveness of the User Agreement when it is not brought to the direct attention of the user. For a breach of contract claim to succeed, each Web site would have to require an individual to register and then present him or her with the User Agreement.¹⁶⁸ This is not an option many Web sites will likely entertain since the Web is premised on the open access of information.

Fortunately, the possible remedies provided by federal law will provide a better chance to protect the victims of Web site annotation. Under the various federal law theories, both general copyright infringement and the Digital Millennium Copyright Act seem like viable candidates to protect victims of Web site annotation. Web site annotation technology takes the Web page, marks it with annotations and redistributes it to other users, possibly giving rise to a claim of copyright infringement.¹⁶⁹ The question then turns on whether this action constitutes fair use or is an unprotected derivative work.

In fair use analysis, when the four factors are examined together, a Web annotation company's use of another Web site's pages may constitute valid fair use; however, the first and last factors provide the strongest challenge to the fair use defense.¹⁷⁰ With respect to derivative works, the court in *Futuredantics* was willing to let a claim premised on Web site framing, a less egregious act than annotation, proceed on a copyright infringement theory; specifically, the act violated the author's right to create derivative works. Unfortunately, that case settled, leaving the question unanswered; but should a court reexamine the framing context and find copyright infringement, there is a strong likelihood that it will make the next

167. See discussion *supra* Part III.A.2.

168. See discussion *supra* Part III.A.3.

169. See discussion *supra* Part III.B.1.

170. See discussion *supra* Part III.B.1.c.

logical extension and find that Web site annotation constitutes copyright infringement.¹⁷¹

The recently enacted Digital Millennium Copyright Act provides the strongest remedy against providers of Web site annotation services. The expansive definition of what constitutes a service provider seems broad enough to include providers of annotation services. The only drawback to the DMCA is that the Web site must employ some sort of access control device to prevent unfettered access to the site. The DMCA then applies when the annotation service attempts to circumvent that control device to engage in its intended purpose. Unfortunately, the same business-oriented problems arise here as they did with breach of contracts. Most owners of Web sites, especially those most susceptible to annotation—i.e. news and commerce sites—want to provide consumers with open, unrestricted access.¹⁷²

Lastly, the Computer Fraud and Abuse Act is unlikely to provide any recourse to the victims of Web site annotation. The CFAA was intended for hacking into confidential and private information, and the threshold for damages in order to state an actionable claim will be difficult to prove.¹⁷³

As this technology continues to proliferate, it will be important for the courts to develop a doctrine to ensure that there are not widespread abuses of the technology. This will require the courts to take traditional doctrines and expand them to provide protection against Web site annotation. For those sites that require user registration or have restricted access, the possibility for protection is the greatest. For those sites that are completely open and freely accessible, only time will tell how the courts will choose to protect them.

*Anthony J. Napolitano**

171. See discussion *supra* Part III.B.1.b.

172. See discussion *supra* Part III.B.2.

173. See discussion *supra* Part III.B.3.

* J.D. Candidate, May 2003, Loyola Law School; B.S., Accounting, Loyola Marymount University, 1997; B.S., Economics, Loyola Marymount University, 1997. I would like to thank the editors and staff of the *Loyola of Los Angeles Law Review* for their editorial advice and tireless assistance in bringing this Note to print, especially to Gabe Padilla for all of his time and

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