DEEP LINKING: POLICY AND RULE CONSIDERATIONS FOR SAFEGUARDING OPEN INTERNET NAVIGATION

Robert M. Scott*

Introduction

As courts and legislatures struggle with how to regulate the Internet, they must consider many factors in deciding how to apply and/or modify existing intellectual property, tort, First Amendment, and contract law. This paper discusses these factors in the context of 'deep linking,' and suggests that there must be a proper balance between initial entitlements and the ability of private parties to negotiate for their redistribution, a balance that preserves the Internet's open, end-to-end navigability. This balance must consider economic efficiency, individual needs, and the needs of the larger society as a whole.

^{*} Associate, Mastbaum & Moffat, LLP, Boulder, Colorado. The author is a 2001 graduate of the University of Colorado School of Law. This paper was the winning essay of the 2001 Silicon Flatirons Telecommunications Law Essay Contest and represents the first of what will be a tradition of outstanding student-written papers published in JTHTL. The author would like to thank Professor Phil Weiser for his guidance and encouragement, and Paige Patterson for her comments on an earlier draft.

^{1.} Linking refers to the use of a hyperlink, which is text or some other element of the webpage such as an image. The hyperlink is programmed with the electronic address of another web page, which may be a different page within the same website, a page on a different website maintained by the same entity, or a page on a completely unrelated site. The user's computer then retrieves and displays the requested page. See Joshua M. Masur, Links, Liability, and the Law: The Strange Case of Ticketmaster v. Microsoft, 23 Colum.-VLA J.L. & Arts 419, 421-22 (2000). "Deep linking" refers to the ability of a hyperlink to take the user from a page on one website to a page on a different website other than that other site's 'home page' (i.e., a page 'below' the home page). See id. at 427. Other current issues related to deep linking include contributory liability for providing links to web pages containing infringing material (see, e.g., Intellectual Reserve, Inc. v. Utah Lighthouse Ministry, Inc., 75 F. Supp. 2d 1290 (D. Utah 1999)), and liability for framing (the use of a link to place protected material owned by another within a border of advertising material or trademarks that creates the impression on the user that the protected material is actually the product of the linking site) (see, e.g., Futuredontics, Inc. v. Applied Anagramics, Inc., No. 97-56711, 1998 U.S. App. LEXIS 17012 (9th Cir. 1998). These issues are outside the scope of this paper.

Law and policy makers faced with the challenge of determining where these initial entitlements lie may choose a framework based in property or tort. Neither, however, provides an ideal scheme. A strict property-based system might very well give too much protection to website owners, at the expense of information exchange. Of the relevant cases that have addressed the issue thus far, most of them have concluded that intellectual property rules do not protect the owners of websites that are the target of deep links, finding instead greater merit in tort-based claims such as trespass² and unfair competition. Consequently, the line between property and tort blurs when the issue is damage to intellectual property rights. In this confusion lies an opportunity to formulate new policy for deep linking that creates greater certainty as to rights and liabilities, protects the exchange of information over the Internet, and balances the right to exclude with the need for access.

Numerous commentators have attempted to apply existing law to Internet property issues, including deep linking.³ Others have proposed that new rules may be necessary to govern the Internet.⁴ This paper applies an economic rationale to the place-

^{2.} It should be noted that, despite being termed a tort, trespass involves the recognition of an initial property right.

^{3.} See, e.g., William W. Fisher, Property and Contract on the Internet, 73 CHI.-Kent L. Rev. 1203 (1998) for a discussion of the interplay between intellectual property rights and contract in the Internet context, and a proposal for an initial entitlement that permits deep linking and allows contract and technology to modify the entitlement. Prof. Fisher's article sets forth a detailed framework for entitlements related to property ownership on the Internet in general. This article, with an exclusive focus on deep linking, applies an analytic framework that considers an economic rationale for creating initial entitlements and explores the benefits and risks of the potential rule choices. See also Mark Sableman, Link Law Revisited: Internet Linking Law at Five Years, 16 Berkeley Tech. L.J. 1273, 1337-41 (Fall 2001) (an article published between the writing and publication of the present article that provides a comprehensive overview of linking issues and suggesting, inter alia, a presumptive right to link for "reference links" (one that is the functional equivalent of a footnote), the use of trademark confusion analysis to focus on whether consumers are likely to be confused by the use of a link, and preferential treatment for search engines) and Christopher E. Gatewood, Note, Click Here: Web Links, Trademarks and the First Amendment, 5 Rich. J.L. & Tech 12, ¶ 47 (Spring 1999), at http:// www.richmond.edu/JOLT/v5i3/gatewood.html (which proposes a division of websites into commercial and noncommercial categories for the purpose of applying First Amendment, trademark, and misappropriation safeguards to Internet linking practices).

^{4.} See, e.g., Maureen A. O'Rourke, Property Rights and Competition on the Internet: In Search of an Appropriate Analogy, 16 Berkeley Tech. L.J. 561 (Spring 2001) (describing unintended consequences of applying "bricks and mortar" laws to the Internet, and calling for an evaluation of how laws need to be changed to accommodate the differences between the Internet and physical space); John D. Sabba, Jr., Comment, Internet Property Rights: E-Trespass, 33 St. Mary's L.J. 367, 402-4 (2002) (an article published between the writing and publication of the present arti-

ment of initial linking entitlements and the creation of a deep linking policy, and suggests that a combination of existing law and new, Internet-specific rules is necessary to preserve the open navigability of the Internet. In attempting to develop the arguments for and against potential entitlements, Part I of this paper looks at a few of the relevant cases and their attempts to apply intellectual property, tort, and First Amendment law to deep linking. Part II explores economic theory on social costs and proposes different possible entitlements, facilitating the evaluation of policy objectives and the selection of rules. It discusses alternatives for placement of initial entitlements, including ways to shift the initial allocation through contract, business, and technological solutions to more optimal situations from both economic and social welfare perspectives. Part III discusses the rationales that should inform the crafting of policy and rules that balance the need for efficient information exchange on the Internet and the need to protect a website author's moral rights, such as the ability to control how a web user encounters the author's site. Part IV recommends that an initial "right to link," with limited exceptions, will provide the greatest overall benefit. Part V offers concluding thoughts on the application of the recommended system.

I. The Deep Linking Controversy

Linking is as fundamental a characteristic of the Internet as is the open standard of TCP/IP Internet language. It is a common component of the experience for both the novice and the experienced net surfer. It is as simple to accomplish as a click of a mouse button on a hyperlink. Without linking, complete Uniform Resource Locator (URL) codes must be entered manually, a task that is often onerous when accessing a web page that is 'deep' within a given website.⁵ Furthermore, a link that leads to a page on another website functions not only to transport the user to a new page, but also to notify the user of the existence of another site that may be of interest. Thus, links constitute a form of free advertising for the linked site and fulfill a social purpose by increasing the efficiency of information exchange. Restrictions on the ability to link would diminish the Internet's

cle, proposing a new statute establishing an Internet trespass cause of action more suitable to the Internet medium than traditional trespass theories).

^{5.} For purposes of this paper, a web page (or page) refers to any single, discrete display linked to a particular URL; a website (or site) refers to a group of such pages that are created and administered by one entity, typically consisting of a *home page* and other pages which a user may link to from the home page ('deep' pages).

utility, decrease the efficient use of human time and energy, and hamper social and economic productivity.

Despite benefits, the owners of linked sites have initiated several lawsuits alleging injury from links created by other, unaffiliated website owners. Clearly, there is something more going on than merely free advertising. If that were the only issue, one might ponder why the linking site does not solicit the linked site for payment for this form of free advertising, or why the linked site does not silently appreciate the increased traffic to its site.

One reason for this litigation is the relation between advertising revenue and the various forms of linking. There are two major types of linking: surface linking and deep linking.⁶ Surface linking takes the user to the home page of a website, its proverbial front door. Website owners are unlikely to complain about surface linking since the user experiences the site as contemplated by the owner. A user comes into the site through the home page, encounters any advertising that it contains, and can navigate to deep pages by following links placed on the website by the website owner. Deep linking is the subject of greater controversy because it takes the user to a page deep within the website, bypassing the home page and, significant to many website operators, the advertising located there.8 Advertisers who pay website owners based on the number of hits on the homepage will not pay for hits directly to deep pages from deep linking, resulting in the loss of a corresponding amount of revenue for the target site.

A second reason for linking-related litigation might be the moral right to control the website experience. Although the parties in the cases discussed below rely primarily on lost advertising revenues, it is plausible that control for its own sake could

^{6.} Links may also be used to move a user within a page or website.

^{7.} There may be concerns in some situations that the use of the linked site's trademark could falsely suggest some association with the linking site or result in dilution of the trademark. Dilution is defined as "the lessening of the capacity of a famous mark to identify and distinguish goods or services, regardless of the presence or absence of: (1) competition between the owner of the famous mark and other parties, or (2) likelihood of confusion, mistake, or deception." 15 U.S.C. § 1127 (2000). Three general types of dilution are blurring (ability to identify a product is weakened), tarnishment (the mark is "associated with an inferior product or portrayed in an unfavorable light"), and diminishment (use by others diminishes the owner's ability to use the mark in advertising). See id.

^{8.} In addition, users bypass disclaimers and terms of service that often are located on the home page. Nicos L. Tsilas, *Minimizing Potential Liability Associated with Linking and Framing on the World Wide Web*, 8 CommLaw Conspectus 85, 87 n.22.

become an important part of claims under a theory based on moral rights. Simply put, moral rights extend the protection of copyright law to prevent, *inter alia*, any modification of a work that "would be prejudicial to [the author's] honor or reputation." The legitimacy of this right in the Internet context is suspect as an Internet user can usually bypass a home page by entering the URL of a deep page into the user's browser. A user can easily obtain the URL by bookmarking the page during a previous visit. Even so, any new policy decision should accord proper consideration to the website author's moral rights.

Deep linking complaints are based on numerous legal theories, ranging from copyright and trademark infringement to trademark dilution, unfair competition, misappropriation, tortious interference with contract, trespass to chattels, ¹⁰ unfair business practices, and unjust enrichment. The few judicial decisions and settlements to date serve as a starting point for further analysis of the deep linking controversy, embracing, for the most part, the primacy of efficient information exchange over the rights of the target websites.

A. The Shetland Times Case

In 1995, the Shetland News, a Scottish paper, placed as links on its website verbatim copies of the headlines of its competitor, the Shetland Times.¹¹ These links took viewers to the articles on deep pages in the Times' website, bypassing the home page and the Times' advertising.¹² In granting an interim edict,¹³ the court held that the "plaintiff had a prima facie case that the incorporation by the defendants in the web site of the headlines provided at the plaintiff's web site constituted an infringement" of a specific statute that protected content on "cable programmes." The court also stated that the Times had a right to limit access exclusively through the home page, that there was a clear

^{9. 17} U.S.C. §106A(a)(3)(A) (1994).

^{10.} Trespass to chattels is defined as the "act of committing, without lawful justification, any act of direct physical interference with a chattel [movable or transferable property] possessed by another." Black's Law Dictionary 1509 (7th ed. 1999).

^{11.} See Shetland Times, Ltd. v. Wills, [1997] F.S.R. 604, 606 (Outer House, Oct. 24, 1996) (Westlaw UK). Although this Scottish case carries no precedential value in the United States, it is useful to examine how other common law systems are dealing with deep linking policy questions.

^{12.} Id. at 607.

^{13.} An interim edict is the Scottish equivalent of a preliminary injunction. See Martin J. Elgison & James M. Jordan III, Trademark Cases Arise from Meta-Tags, Frames Disputes Involve Search-Engine Indexes, Web Sites Within Web Sites, as Well as Hyperlinking, NAT'L LAW J., Oct. 20, 1997, at C6.

^{14.} See Shetland Times v. Wills, [1997] F.S.R. at 605.

prospect of lost revenue, and that the *Times* did not gain any advantage by virtue of the links from the *News*' site.¹⁵

Despite the fact that the case settled, the statute and the settlement terms address an important policy concern. The statute reflects a policy heavily favoring private property rights. Consequently, the settlement terms track this policy. The *Times* permitted the *News* to link to the *Times*' site on the condition that the *News* provide attribution to the *Times* under each linked headline. The attribution read "A *Shetland Times* Story," and the *Times*' logo appeared adjacent to each link. ¹⁶ Each of these attributions linked to the *Times*' home page. In this manner, the parties shifted the initial entitlement to their mutual benefit.

B. The Ticketmaster Cases

Ticketmaster, which sells tickets for a variety of public events, has been involved in two lawsuits, one with Microsoft and one with a rival, Tickets.com. The case against Microsoft involved one of Microsoft's city-specific websites, "Seattle Sidewalk," that, among other features, lists events for which Ticketmaster sells tickets. The parties were discussing a plan to place links on the Microsoft website that would enable users to link directly to deep pages on the Ticketmaster site in order to buy tickets for events identified on the Microsoft site.¹⁷ When negotiations between the parties broke down, Microsoft went ahead with its plan and embedded the deep links. Ticketmaster took exception and initiated a lawsuit.¹⁸

Ultimately, the case was settled, with Ticketmaster giving Microsoft permission to provide links only to Ticketmaster's home page. ¹⁹ Without the guidance of any judicial pronounce-

^{15.} See id. at 609.

^{16.} Walter A. Effross, Withdrawal of the Reference: Rights, Rules, and Remedies for Unwelcomed Web-Linking, 49 S.C. L. Rev. 651, 656, citing Publisher's Statement, Internet Dispute Settled, The Shetland Times Ltd., at http://www.shetland-times.co.uk/st/internet.htm (last modified Nov. 11, 1997) (currently unavailable).

^{17.} Jerry R. Kuester & Peter Nieves, *Hyperlinks, Frames, and Meta-Tags: An Intellectual Property Analysis*, 38 IDEA 243, 261 (1998), *citing* First Amended Complaint, Ticketmaster Corp. v. Microsoft, Inc., CV 97 3055 RAP (C.D. Cal. *filed*, Apr. 27, 1997), *at* http://www.ljx.com/LJXfiles/ticketmaster/complaint.html (currently unavailable).

^{18.} *Id.* at 261-62. Ticketmaster sought relief under the Lanham Act, the California Business and Professions Code, and California common law of unfair competition and unfair business practices. The Lanham Act, protecting trademark rights and providing relief for a variety of unfair competition claims, is located at 15 U.S.C. §§ 1051-1129.

^{19.} See Bob Tedeschi, Ticketmaster and Microsoft Settle Suit on Internet Linking, N.Y. Times, Feb. 15, 1999, at C6.

ment, the reason for settlement is speculative.²⁰ However, judging from the fact that Ticketmaster was successful in persuading Microsoft to remove the deep links, the underlying policy conception appears to be similar to that of *Shetland Times* in that it recognized a private property right in Ticketmaster. Interestingly, in this case it appears that Ticketmaster stood to potentially receive additional ticket sales revenue as a result of the Microsoft site steering traffic to the Ticketmaster site through deep links. Whatever the size of this commercial gain, it was obviously of less value to Ticketmaster than the integrity of its site.

Ticketmaster's second attempt to prevent deep linking involved linking similar to that in the Microsoft case. However, the suit was against Tickets.com, a competitor of Ticketmaster.²¹ The two competitors sell tickets to different events. When a Tickets.com user requested tickets for an event for which Tickets.com did not sell tickets, Tickets.com provided a link to the deep page within Ticketmaster's website for its user's desired event. In addition to pursuing legal remedies, Ticketmaster implemented technology to re-route the deep links to its home page. As a result of this re-routing, Tickets.com changed its practice and linked only to Ticketmaster's home page.²² However, the suit continued.

In two preliminary orders, the court expressed doubt that deep linking involved any copyright, trademark, or unfair competition violation, but did recognize that the trespass to chattels, unfair business practices, and tortious interference with prospective business advantage claims might have merit.²³ On the copy-

 \mathbf{R}

^{20.} The decision to settle could be based purely on a cost-benefit analysis of going to trial, or it might indicate that one or both sides did not consider the chances of success on the merits very good.

^{21.} The Federal District Court for the Central District of California handed down two orders, one denying in part and approving in part a motion to dismiss, see Ticketmaster Corp. v. Tickets.com, Inc., No. CV 99-7654 HLH(BQRX)), 2000 WL 525390 (C.D. Cal. 2000) [hereinafter *Motion to Dismiss*], and one refusing to grant a preliminary injunction, see Ticketmaster Corp. v. Tickets.com, Inc., No. CV 99-7654, 2000 WL 1887522 (C.D. Cal. 2000) [hereinafter *Motion for Preliminary Injunction*], which the Ninth Circuit affirmed without comment, see Ticketmaster Corp. v. Tickets.com, Inc., No. 00-56574, 2001 WL 51509 (9th Cir. 2001).

^{22.} See Motion for Preliminary Injunction, supra note 21, at 2. Ticketmaster stated in its oral argument that it had lost this technological capacity, and Tickets.com stated that it may begin deep linking again. *Id.* However, in an examination of the Tickets.com website by the author, no links to Ticketmaster sites were found. See Tickets.com, at http://www.tickets.com (last visited Mar. 30, 2002).

^{23.} The court dismissed several other state law claims, including misappropriation and unjust enrichment, because, on the facts of this case, the court found them to be preempted by federal copyright law. See Motion to Dismiss, supra note 21, at 4. In a situation where the works at issue are more clearly worthy of copyright protection, these claims may have merit. To this extent, they will be discussed in

right claim, the court stated that "hyperlinking does not itself involve a violation of the Copyright Act . . . since no copying is involved . . . [but] is analogous to using a library's card index to get reference to particular items, albeit faster and more efficiently."24 The court did not dismiss the claim because of Ticketmaster's allegation that Tickets.com actually copied Ticketmaster event pages onto Tickets.com's computers for the limited purpose of extracting factual information. However, it did reject Ticketmaster's contention that it is copyright infringement to take basic facts from publicly available web pages and publish that information without also copying Ticketmaster's form of expression.²⁵ The court also rejected the notion that copving the URL itself was an infringement; the URL is unprotectable because it "contain[s] functional and factual elements only and not original material."26 Tickets.com's use of "spidering"27 was likely analogous to the fair use of reverse engineering to obtain unprotected functional elements approved of by the Ninth Circuit,²⁸ but could have some merit as a trespass to chattels claim if Ticketmaster could show physical harm to its computers or their basic functioning.29

Ticketmaster's claims under the Lanham Act, state unfair competition law, passing off, and reverse passing off lacked sufficient facts to support a preliminary injunction.³⁰ The court concluded that consumer confusion is unlikely because the

Section III. The court also dismissed a contract claim founded on the "terms and conditions" page of the Ticketmaster website. *See Motion to Dismiss, supra* note 21, at 3. These claims are outside the scope of this paper.

 \mathbf{R}

 \mathbf{R}

 \mathbf{R}

 \mathbf{R}

^{24.} See id. at 2.

^{25.} See id. See also Feist Publ'ns, Inc. v. Rural Tel. Serv. Co., Inc., 499 U.S. 340 (1991) (holding that a subsequent compiler of factual information remains free to use facts contained in the work of another so long as the second work does not feature the same selection and arrangement of those facts).

^{26.} See Motion for Preliminary Injunction, supra note 21, at 3.

^{27. &}quot;Spiders," also known as webcrawlers or robots, scan the Internet for matches to keywords and retrieve the pages. See Robyn Greenspan, Here I Am!, E-Commerce Guide, (June 6, 2000), at http://ecommerce.internet.com/solutions/ectips/article/0,1467,6311_388981,00.html (last visited Mar. 30, 2002). Even though Tickets.com made an electronic copy of protected Ticketmaster web pages, the copies were not used competitively, but for the limited purpose of obtaining non-protectable data and were destroyed after performing that function. See Motion for Preliminary Injunction, supra note 21, at 3.

^{28.} See Sony Computer Entm't, Inc. v. Connectix Corp., 203 F.3d 596 (9th Cir. 2000), $cert.\ denied$, 531 U.S. 871 (2000).

^{29.} See Motion for Preliminary Injunction, supra note 21, at 4. See generally eBay, Inc. v. Bidder's Edge, 100 F. Supp. 2d 1058 (N.D. Cal. 2000).

^{30.} See Motion for Preliminary Injunction, supra note 21, at 5.

Ticketmaster site is filled with its logos,³¹ and Tickets.com "in no way pretends that it is [Ticketmaster] or acting for it."³² The court stated that deep linking by itself, without confusion of source, does not necessarily involve unfair competition.³³

Finally, the court found that federal copyright law did not preempt the claims of tortious interference with prospective business advantage or unfair business practices.³⁴ Ticketmaster claimed that its advertisers pay on the basis of the number of hits to the home page, and will not pay for hits to deep pages. It alleged that Tickets.com implemented its deep links for the purpose of decreasing Ticketmaster's advertising revenue, tortiously interfering with Ticketmaster's prospective business advantage.³⁵ The unfair business practices claim, that Tickets.com took and published otherwise unprotectable factual data from Ticketmaster, escaped preemption by virtue of an allegation of false advertising.³⁶

Although the case is still pending at the time of this writing, these initial determinations reflect the opinion of the court that current intellectual property law does not provide much support for claims against deep linking. This lack of protection supports the need for a review and, if necessary, a modification of intellectual property rules that addresses the balance between the target site's interests and the efficient exchange of information. Alternatively, tort law (unfair business practices, tortious interference, and trespass to chattels) might be able to strike the right balance of these competing interests.

C. ACLU v. Miller

In a context different than that of *Shetland Times* and the two Ticketmaster cases, the American Civil Liberties Union of Georgia challenged the constitutionality of a Georgia statute

^{31.} See id. Passing off occurs when one party (Tickets.com) sells its products or services as that of another party in order to benefit from the goodwill associated with the other party's name (Ticketmaster). See Black's Law Dictionary 1146 (7th ed. 1999)

^{32.} See Motion for Preliminary Injunction, supra note 21, at 5. Reverse passing off occurs when one party (Tickets.com) pretends it is the same as, affiliated with, or sponsored by another party (Ticketmaster). See Black's Law Dictionary 1320 (7th ed. 1999) (defining reverse-confusion doctrine).

^{33.} See Motion to Dismiss, supra note 21, at 3.

^{34.} In order to avoid preemption by federal copyright law, a complaint must allege an "extra element" that is not equivalent to the rights protected by the Copyright Act. See 17 U.S.C. § 301 (2000), construed in Nat'l Basketball Ass'n. v. Motorola, Inc., 105 F.3d 841 (2d Cir. 1997).

^{35.} See Motion to Dismiss, supra note 21, at 4.

^{36.} See id

that criminalized and provided civil remedies for fraudulent and misleading linking involving trademarks, copyrights, logos, or official seals³⁷ on the ground that it was overbroad and violated the First Amendment by sweeping within its boundaries protected speech.³⁸ The statute criminalized the transmission of data that includes a trademark or any similar designation or copyrighted symbol that would falsely state or imply that the transmitter has permission or is legally authorized to use the mark or designation.³⁹

In issuing a permanent injunction against enforcement of the law, the Federal District Court for the Northern District of Georgia read the statute as prohibiting all use of links on web pages, including noncommercial and fair uses.⁴⁰ Despite the court's statement that "[t]he appearance of the [mark], although completely innocuous, would definitely "imply" to many users that permission for use had been obtained," the court found that the defendants "have articulated no compelling state interest that would be furthered by restricting the linking function in this way."⁴¹

In striking down the statute, the court ostensibly created a First Amendment right to link.⁴² Outside of the Internet context, such implied permission would result in a finding of infringement.⁴³ Judge Schoop's novel opinion "arguably suggests that the usual rules governing trademark infringement and unfair competition actions may not apply with equal force where hyperlinks are concerned," and that the First Amendment might restrict the ability of trademark owners to prevent use of their marks in hyperlinks.⁴⁴ This reading of the First Amendment in the Internet context supports a policy that places primacy on the exchange of information and counsels against laws that inhibit First Amendment protections.

D. Search Engines: Ditto.com

The Ditto.com website is home to a visual search engine that allows a user to obtain a list of related websites accompanied by

^{37.} Ga. Code Ann. § 16-9-93.1 (1999).

^{38.} ACLU of Ga. v. Miller, 977 F. Supp. 1228 (N.D. Ga. 1997).

^{39.} GA. CODE ANN. § 16-9-93.1 (1997). The statute also criminalized false identification by use of these same means, which will not be discussed.

^{40.} ACLU, 977 F. Supp at 1233 n.5.

^{41.} Id.

^{42.} See Kuester & Nieves, supra note 17, at 269.

^{43.} See, e.g., Dallas Cowboys Cheerleaders, Inc. v. Pussycat Cinema, Ltd., 604 F.2d 200, 205 (2d Cir. 1979).

^{44.} Kuester & Nieves, supra note 17, at 269.

a visual thumbnail image, rather than descriptive text.⁴⁵ Each thumbnail image provides a deep link into the website from which Ditto obtained the image.⁴⁶ In 1999, a photographer, Leslie Kelly, who posts his photographs to his website, accused Ditto of copyright infringement for using thumbnails of his protected photos in its search results.⁴⁷ The court found Ditto's use of Kelly's photographic images to be a fair use because it was significantly transformative in nature and there was no evidence of market harm to Kelly.⁴⁸

An important distinction to note between this case and the preceding ones is that Ditto operates a search engine. In the court's view, search engines have "established importance" on the Internet.⁴⁹ Although search engines operate as commercial ventures, deriving advertising revenue from banner ads, they only compete with other search engines. Search engines are a hybrid of public service and commercial motivation, providing an essential indexing service for the cost of displaying advertisement that the user can choose to disregard. Their relationship to target sites is essentially noncompetitive in nature insofar as they do not adversely impact the market for the products or services of the target site. Significantly, the fair use justification by the court was based on the absence of market harm to Kelly and implies that deep linking itself may be subject to a market harm test in certain instances: If a website owner can produce empirical evidence of market harm, especially lost advertising revenue, then a claim may exist, potentially under copyright, unfair competition, or trespass theories.

II. ECONOMIC AND CONCEPTUAL FRAMEWORKS: COASE; CALABRESI AND MELAMED

The discussion of the cases in the preceding section illustrates recent attempts to apply established rights regimes to the technology associated with the Internet. At this point we may

^{45.} See Kelly v. Arriba Soft Corp., 77 F. Supp. 2d 1116, 1117 (C.D. Cal. 1999), aff'd in part, rev'd in part by 2002 U.S. App. LEXIS 1786 (9th Cir. Feb. 6, 2002). (Ditto was formerly known as Arriba.)

^{46.} Id.

^{47.} See id. Kelly also claimed that Ditto's use of full-size images infringed his copyrights, a claim that both the District Court and the Court of Appeals upheld. Id.

^{48.} See id. at 1121. "Transformative" refers to the fact that Ditto's use of the thumbnail versions of Kelly's photographs was not aesthetic, but functional. See id. at 1119. These two factors in Ditto's favor outweighed the two fair use factors that favored Kelly: that his work was entitled to strong copyright protection, and that Ditto used the entirety of the protected image. See id at 1121. See also 17 U.S.C. § 107 (2000) (listing fair use factors).

^{49.} See Arriba, 77 F. Supp. 2d at 1121.

ask, "What now?" and "Where are the courts and the legislature going?" Or, normatively, "Where should they go?"

The works of Ronald Coase, and Guido Calabresi and Douglas Melamed, provide instructional economic and conceptual frameworks that assist in exploring and understanding potential answers to these questions. Coase applies economic theory to describe the relationship between initial entitlements and the costs related to their reapportionment. Calabresi and Melamed provide a conceptual framework that classifies three types of entitlement rules that combine property, tort, and contract principles. The discussion of these rules will include reference to the cases associated with each, and provide alternative approaches to deep linking policy.

A. The Problem of Social Cost

In analyzing conflicts, the usual reaction is to determine how to prevent party A from inflicting harm on party B.⁵¹ In this situation, there are benefits to party A from inflicting the harm on party B, as well as losses to party B. Party B may gain if party A is prevented from inflicting the harm. From an economic perspective, the question is better put: should party A be permitted to harm party B or *should* B be allowed to harm A?⁵² This analysis is in keeping with the premise that an economist compares the total social product yielded by different arrangements.⁵³ In order to answer this question, we need to know the value of each party's gains or losses. In a world without transaction costs,54 Coase posits that the parties will always choose the solution that maximizes the value of production.⁵⁵ The role of courts and lawmakers, then, is to set the default rule, to determine "who has the legal right to do what. It is always possible to modify by transactions on the market the initial legal delimitation of rights [I]f such market transactions are costless, such a rearrange-

^{50.} R.H. Coase, The Problem of Social Cost, 3 J.L. & Econ. 1 (1960).

^{51.} See id. at 2.

^{52.} See id.

^{53.} See id. at 34.

^{54.} Transaction costs include such things as finding out which parties one needs to deal with, informing them of the desire to deal, conducting negotiations leading up to the bargain, drawing up contracts and other documents, and enforcing the terms of the contract. *See id.* at 15. It also includes all "disutilities" resulting from an activity or its avoidance that are impossible or difficult to quantify in monetary terms, such as loss of self-determination.

^{55.} See id.

ment of rights will always take place if it would lead to an increase in the value of production."⁵⁶

Coase recognizes and addresses the unrealistic assumption of a costless transaction. Accounting for transaction costs, rearrangements of rights will occur only when the value of production after the rearrangement is greater than the costs necessary to bring it about.⁵⁷ When the value is less, enforcing the initial right is likely to result in the discontinuation of an activity because the actor would not profit by the transaction.⁵⁸ It would cost him more to obtain the right than the value he would gain from the activity. The determination of the initial right is therefore crucial to maximizing the value of production. Unless the initial arrangement brings about the greatest production value, the costs of rearranging the rights may be greater than the resulting production value. This may occur even if the resulting production value is greater than the initial production value as determined by the initial arrangement of rights.⁵⁹ Coase concludes that "[e]ven when it is possible to change the legal delimitation of rights through market transactions, it is obviously desirable to reduce the need for such transactions and thus reduce the employment of resources in carrying them out."60

Courts and legislatures must determine, then, in the context of any particular issue, whether the gain in preventing harm is greater than the loss that occurs elsewhere as a result of stopping the action that causes the harm.⁶¹ To return to the context of deep linking, if a rule prohibits all deep linking but permits parties to transfer the right by contract, the rationale in the Coasean analysis must be that (1) the target site benefits more from the prohibition than the providers of the links themselves would gain were they permitted to continue to link, and (2) we either do not value the ability to deep link, or we think that parties will contract to get the right because the value of deep linking will exceed the transaction cost of obtaining the right to link.

Coase recommends that any analysis should begin with the situation, as it actually exists, then examine the effects of proposed policy changes and "attempt to decide whether the new situation would be, in total, better or worse than the original one."

^{56.} Id. at 15.

^{57.} See id.

^{58.} See id. at 16.

^{59.} See id.

^{60.} Id. at 19.

^{61.} See id. at 27.

^{62.} Id. at 43.

In the context of deep linking, this requires looking at the current application of existing intellectual property, tort, First Amendment, and contract regimes, then considering changes to them that would lead to greater social productivity. One framework for this sort of analysis examines the placement of the initial entitlements.

B. One View of the Cathedral

An influential model framework used in determining where entitlements lie as between those with conflicting interests is that of Guido Calabresi and Douglas Melamed.⁶³ Their framework defines three types of rules: a property rule, a liability rule, and an inalienability rule. Within each type of rule, the initial entitlement can be placed with the target site or the linking site. Reflecting on the cases and exploring the alternatives under each paradigm will illustrate these choices. Except for specific reference to search engines and noncompeting uses, the following discussion centers on linking between sites that compete with one another in some regard.⁶⁴ With some alterations, these categories provide guidance in the deep linking context.

1. The Property Rule

An entitlement based on a property rule vests the initial right in one party. Anyone who desires to claim that right cannot, without penalty, obtain it from the holder "unless the holder sells it willingly and at the price at which he subjectively values the property." The property rule involves the least amount of government intervention, for once the right is established, the state plays only a remedial role in deciding its value or conditioning its transfer. 66 A property rule involving the right to establish

 \mathbf{R}

 \mathbf{R}

^{63.} See Guido Calabresi & A. Douglas Melamed, Property Rules, Liability Rules, and Inalienabilty: One View of the Cathedral, 85 Harv. L. Rev. 1089 (1972). Another useful article that explores the range of entitlements in the Internet context is that of Prof. Fisher. See Fisher, supra note 3.

^{64.} Although some commentators have suggested distinguishing between commercial and non-commercial websites for the purpose of allocating initial entitlements, see Gatewood, *supra* note 3, the competitive/non-competitive distinction provides a clearer line, avoiding the problem common to the "commercial" determination inherent in a copyright fair use analysis: many fair uses are made by entities engaged in business for profit, but it is not their intent to usurp the author's market for the material (e.g., educational uses of copyrighted works by private schools can be fair use, yet the use enhances their ability to provide a service for which they earn revenue). The "noncompetitive" categorization necessarily encompasses noncommercial uses.

^{65.} Calabresi & Melamed, supra note 63, at 1105.

^{66.} See id. at 1092. The judiciary is, however, involved in resolving disputes and determining damages.

deep links might give an initial right to link and require the target site to pay the linker not to establish the link. Although this would promote information exchange, it would impose large transaction costs on the target site, as the potential number of linking sites is immense.

Alternatively, the property rule could vest the initial right in the target site, and require a linking site to contract for permission, at the target site's price, to establish a link to it regardless of the presence or absence of market harm. The transaction costs are placed on the linking site and are presumably lower than those that result from vesting the initial right in the linking site. The right could be limited to exclude only competitors, although this would raise definitional problems that may create more transaction costs in judicial labor. The website author's moral rights would be protected by giving him control over how users may experience the site. However, social costs are increased where the target site refuses to reallocate the initial entitlement, frustrating the goal of efficient information access and exchange.

This property rule is evident in Shetland Times and both Ticketmaster cases. Recall that the court's interim edict in Shetland Times indicated its view that the Times had a right to be free of deep links under the protections provided by the cable program statute. In the settlement, the *Times* permitted deep links to its site by its competitor, the News, on the conditions that the *News* attribute the hyperlinked headlines to the *Times*, and that the *News* provide links to the *Times'* home page. The Times did not have to pay the News to stop because it held the initial entitlement, instead preferring to allow the deep links according to its own terms. Under this rule, the parties were able to contract away the initial entitlement, with apparently low transaction costs (the News must merely create the links and attributions; whether money also changed hands, thereby increasing the transaction costs, is unknown). Likewise, Ticketmaster's settlement with Microsoft, that permitted links only to Ticketmaster's home page, reflects a bargaining position strengthened by a right to exclude under an initial property entitlement with similarly low transaction costs. Finally, the court's suggestion in *Tickets.com*, that a trespass to chattels claim might have merit upon a showing of actual harm, recognizes a property right in relation to the use of spiders to create deep links.

2. The Liability Rule

An entitlement based on a liability rule differs from the property rule in that, despite having the initial entitlement, the holder cannot exclude others or be excluded, but is entitled to compensation for the destruction of the entitlement based on an objective standard of value set by some entity external to the parties, 67 typically some organ of the state. 68 An example of this is the eminent domain clause of the Fifth Amendment that prohibits the taking of private property by the government without just compensation. 69 Moving from the property rule to the liability rule generally occurs when "there is no reason to believe that a market, a decentralized system of valuing, will cause people to express their true valuations and hence yield results which all would *in fact* agree are desirable." 70

Under a liability rule, we may give the linking site the initial right to link, but permit the target site to re-route incoming deep links, as discussed by the *Tickets.com* court. The Calabresi/Melamed version of the liability rule would then require the target site to pay some amount of compensation determined by the legislature, an agency, or a court. This gives rise to the tricky problem of valuation. However, an extension of this rule would enable it to function in the context of deep linking. Instead of requiring the target site to pay the linking site, the 'charge' to the target site is only the transaction cost of establishing the means to re-route the deep link to its home page; that is, the rule permits the target site to decide if it is economically beneficial to bother with re-routing the deep link. Any amount it has to spend on re-routing substitutes for payment to the linking party.

This remedy protects the website author's moral rights, albeit with some cost to the author. However, the moral right is not an absolute right to dictate how a user experiences a website; just as the reader of a book may begin on any tangible page he desires, so too should a web user be able to "flip" directly to any virtual page he desires. Of course, the author charges a set price for the entire book, whereas the common practice in website advertising is to charge for advertising based on the number of hits to the home or other page. Thus, if lost advertising revenue is the basis of harm, the effect of the rule may be to encourage the target site to restructure its advertising revenue scheme rather than employ technological measures to re-route deep links.

^{67.} See id. at 1105-06.

^{68.} See id. at 1092.

 $^{69.\;}$ U.S. Const. amend. V. In this example, the court functions to determine the amount of compensation.

^{70.} Calabresi & Melamed, *supra* note 63, at 1107 (emphasis in original).

^{71.} One necessary corollary to this rule would be to prevent outright blocking of deep links.

Under either method, transaction costs are placed on the target site, which is best able to determine the costs and benefits of available remedies. Although restructuring the advertising revenue scheme does not protect moral rights as well as permitting the use of rerouting technologies, the target site can choose which it values more, its moral rights or its advertising revenues.

Alternatively, we may give the target site the right to be free of linking, but require linking parties that establish deep links to pay compensation at a mandated rate to the target site, perhaps with a premium paid by competitors. At the very least, the rule might require the linking site to get permission from the target site by showing that its deep link would not lead to market or functional harm. However, this would place the transaction costs on the linking site, adversely affecting the total social product by potentially decreasing the sum total of deep links on the Internet and, correspondingly, user efficiency.

3. The Inalienability Rule

The third type of rule Calabresi and Melamed identify is the inalienability rule, which describes a law that "not only decides who is to own something and what price is to be paid for it if it is taken or destroyed, but also regulates its sale – by, for example, prescribing preconditions for a valid sale or forbidding a sale altogether."⁷² An inalienability rule increases overall efficiency where a transaction creates significant costs to third parties, or externalities, ⁷³ making it especially well suited to deep linking.

An inalienability rule could create a right to link, but permit a target site to prevent the link upon a showing of market harm. Unfair competition notions would apply to preclude links from competitive sites that do not violate copyright or trademark law⁷⁴ but cause market harm, such as where the deep link, or the spider used to identify that link, causes a loss in advertising revenue or functionality of the target site's hardware. The target site would be entitled to injunctive relief, thereby protecting moral rights as well. Alternatively, the target site could choose to avoid market harm and the costs of litigation by making adjustments to its advertising scheme or re-routing the link. The transaction costs are placed on the target site since it would have

^{72.} See Calabresi & Melamed, supra note 63, at 1111.

^{73.} See id.

^{74.} For example, uses where, as in *Arriba*, the copying was only of unprotected factual data, or where the link is a trademark or other unprotected short phrase or slogan. By definition, noncompetitive sites would not compete with or cause market harm to a target site.

better access to information on damages and, from a Coasean perspective, could best determine the economy of pursuing either the judicial, business, or technological remedy.

A rule that creates an inalienable right to link, with the suggested safeguards, promotes efficient information access and exchange and accommodates the First Amendment concerns raised in ACLU v. Miller. Noncompetitive websites that fall within the fair use exception, including search engines, presumably cause little or no market harm to the target site. In this incarnation, the rule reaches the level of a compulsory regime, vesting the initial right in the linking site, requiring the target site to permit a noncompetitive site to establish deep links for free. Re-routing would be prohibited. Although the First Amendment and fair use defenses arguably provide an equivalent of this rule, enactment of positive law would create greater certainty than relying on those defenses. This rule reflects the result in Arriba, where Ditto's search engine could provide links accompanied by thumbnail copies of the target site's copyrighted images, and would extend to search engines that copy protected text from target sites and display it with the link. Links that fail to satisfy the fair use test (most likely those that adversely affect the market value of the copied material) risk a copyright violation.

An inalienability rule could also preclude any uses of spidering that cause harmful effects by creating a right to use spiders unless the target site shows harm. However, this does not get to the heart of the matter. It does not create a conditional right to be free of deep links, but only a right as to the method of obtaining the URLs necessary to create the links. Those URLs could be obtained through the more painstaking procedure of visiting every website and manually recording the URL of each page. As a practical matter, however, spidering presently is essential to the efficient creation of large numbers of links and thus is crucial to search engines. The inalienability rule provides greater flexibility than a property rule, permitting spidering that does not cause harm, thereby enabling efficient search engine functioning.

Conversely, an inalienability rule might give the target site the right to prevent deep links, and permit the linking site to pay the target site a set fee for the right to establish the link only if certain conditions are met, for example where the linking site is not a competitor or, as in *Tickets.com*, where there is no likelihood of confusion, trademark dilution, or false advertising.⁷⁵ However, this would have the undesirable effect of placing the transaction costs on all noncompetitive sites (including search engines), a number presumably much greater than that of competitive sites. The aggregate transaction costs would be severely detrimental to the goal of a freely navigable Internet. Beneficially, the rule could prohibit links to the target site if the linking site contains content that is against public policy or criminal in nature (for example, a site displaying child pornography), although delicate First Amendment issues are likely to surface under such a rule.

III. CHOOSING THE INITIAL ENTITLEMENT

A mixture of rules protects most entitlements. One example is copyright law. The property rule, with certain exceptions including fair use, applies to the copyright holder's six exclusive rights. The liability rule applies in various compulsory licensing provisions. The inalienability rule is found in termination rights, which permit an author to reacquire rights granted away at a specific time in the future. With numerous choices at hand, what should guide the selection of one or the other regime, or a mixture, and what criteria will decide which party should receive the initial entitlement? Although the preceding discussion refers to various considerations, Calabresi and Melamed provide a useful categorical scheme that defines three rationales: economic efficiency, distributional preferences, and equitable considerations (termed "justice reasons" by Calabresi and Melamed).

A. Economic Efficiency

In setting an entitlement with the goal of optimum economic efficiency, the entitlement would lead to the highest total product

^{75.} Note that, under a property rule, there would be no such requirements on any sale of linking rights.

^{76.} See 17 U.S.C. § 106 (2000). A copyright holder has the right to reproduce, prepare derivative works, distribute copies, perform the work publicly, display the work, and, in the case of sound recordings, to perform the work by means of digital audio transmission.

^{77.} See, e.g., 17 U.S.C. § 115 (1994) (establishing a compulsory licensing system to permit a person to make and distribute phonorecords of copyrighted nondramatic musical works and a per-minute royalty rate which, however, is subject to negotiation by the parties, but ultimately may be determined by a royalty arbitration panel).

^{78.} See 17 U.S.C. § 203 (2000).

^{79.} See Calabresi & Melamed, supra note 63, at 1093.

for the effort of producing it.⁸⁰ This reflects Coase's principle, that an economist compares the total social product generated by various arrangements.⁸¹ By itself, a pure economic efficiency rationale results in an entitlement that "favors knowledgeable choices between social benefits and the social costs of obtaining them, and between social costs and the socials costs of avoiding them," which suggests putting the costs "on the party or activity that can most cheaply avoid them."⁸² Where this is difficult to determine, the costs are put on the party that, with the lowest transaction costs, can act in the market to correct any error in entitlements.⁸³ In the context of deep linking, this requires a comparison between the social benefits and costs of permitting deep linking.⁸⁴ and the benefits and costs of prohibiting deep linking.⁸⁵

B. Distributional Preferences

Entitlement decisions implicate two types of distributions: a distribution of wealth, and a distribution of certain specific goods, often termed "merit goods." A completely equal distribution of wealth is impossible in a society with entitlements, as one set of persons will benefit from those entitlements, while others must pay for access. For example, intellectual property rights distribute financial wealth to the owner of those rights and away from the buyers of access to them; this distribution is different than the result in a society that requires creators to share the fruits of their intellect but which compensates them according to their needs. 88

Perhaps more importantly for deep linking, the choice of entitlement can influence the distribution of a merit good, in this case, information. If a society wishes to ensure that individuals have access to information in a certain way or at a certain level of

 \mathbf{R}

^{80.} See id. at 1094.

^{81.} See supra text accompanying note 54.

^{82.} Calabresi & Melamed, supra note 63, at 1096-97.

^{83.} See id. at 1097.

^{84.} Examples of benefits and costs associated with permissive deep linking include increased user efficiency, resulting in increased production; potentially increased numbers of visits to the target site; the cost of technical strategies to defeat deep linking; the loss of goodwill due to trademark dilution.

^{85.} Examples of benefits and costs of prohibiting deep linking include protection of target site's integrity and advertising revenue, and decreased efficiency of information exchange due to the transaction costs of reallocating the right.

^{86.} Calabresi & Melamed, supra note 63, at 1098.

^{87.} See id. at 1099.

^{88.} See id. at 1098-99. Of course, buyers receive a value, but they have to pay for it.

efficiency, it may choose to create an entitlement that accomplishes these goals.⁸⁹ One example is a competitor's right of non-discriminatory access to unbundled elements of local telephone loops created by the 1996 Telecommunications Act.⁹⁰ Law-makers must not overlook this concern when selecting the initial entitlements for deep linking.

C. Equitable Considerations

The equitable considerations category operates as a catchall, although, as Calabresi and Melamed admit, many of the efficiency and distribution rationales encompass these concerns. They distinguish equitable considerations as those preferences that cannot be easily explained in terms of a few broad distributional preferences. Examples may be found in consumer welfare, a society of information and ideas, a rich artistic tradition including artistic integrity, a participatory democracy that engenders self-determination, and general sociability and the moral rights of copyright holders. These attributes may be especially important in the development of Internet policy in terms of information distribution and self-determination.

The chart below summarizes the foregoing analysis of entitlements and rationales.

IV. RECOMMENDATIONS

The ability to navigate the Internet in a cost-efficient manner is a feature critical to the Internet's past and future utility. Subjecting web users to the burden of wading through a series of web pages of little or no value to the user's current objective will not only decrease social and economic productivity, but also increase user frustration levels and threaten the long-term development of the Internet as the tool of choice for information exchange. A deep linking rule must protect the free exchange of information on the Internet in an efficient manner. It should also prevent tangible harm to website owners. The rule can accommodate some protection of the moral rights of website authors, but this value must be subordinate to the greater societal welfare. Therefore, the initial entitlement should establish a right to link and provide minimal, well-defined exceptions appli-

^{89.} See id. at 1100.

^{90.} See 47 U.S.C. § 251(c)(3) (Supp. V 1999).

^{91.} See Calabresi & Melamed, supra note 63, at 1104.

^{92.} See id. at 1105

^{93.} See Fisher, supra note 3, at 1216-18 (describing his "social-planning" theory of intellectual property).

376 TELECOMMUNICATIONS & HIGH TECHNOLOGY LAW [Vol. 1

INITIAL DEEP LINKING ENTITLEMENTS WITH COSTS AND BENEFITS

		Property Rule	Liability Rule	Inalienability Rule
Initial Entitlement in Target Site	Right	not to be linked to linking site pays for right to link	not to be linked to if linked to, only entitled to compensation as determined by external source, such as government agency	not to be linked to right cannot be sold unless certain conditions are met (noncompetitive sites; attribution; no confusion or dilution; no physical harm or functionality impairment) OR sale completely prohibited if to a site that is against public policy or is criminal in nature of content (such as child pornography)
	Benefits	prevents competitors from linking and diverting potential advertising revenue, as in the Tickets.com case transaction costs limited to linking site protects moral rights	no transaction costs for target sites compensation at a fair price limited protection for moral rights	potentially high transaction costs because unregulated attribution prevents confusion contributes to self- determination protects moral rights
	Costs	hinders justice con- cerns and distribu- tion of merit goods without proof of market harm	hinders justice concerns and distribution of merit goods increases administrative transaction costs	hinders justice con- cerns and distribu- tion of merit goods
Initial Enti- tlement in Linking Site	Right	right to link target sites pay to prevent link	right to link, but target site can pre- vent linking by pay- ing set price, or by using technological means	right to link target site can prevent linking upon showing of market harm can prevent use of spiders upon showing harm to infrastructure or functionality
	Benefits	facilitates distribu- tion of merit goods and other justice concerns	facilitates distribution of merit goods and other justice concerns (even rerouted deep links permit user to eventually get to the deep page) contributes to self-determination; protects moral rights	facilitates distribu- tion of merit goods and promotes jus- tice concerns permits competitors to prevent harmful linking
	Costs	high transaction costs (potentially unlimited number of linking sites), but this is tolerated if there is little harm to target site or it can avoid loss by advertising redistribution decreases self-determination protection for moral rights must be purchased	high transaction costs (payment; upgrading technol- ogy; inefficiency for user)	high transaction costs for competitors, but tolerated if there is little harm to target site or it can avoid loss by advertising redistribution decreases self-determination protection of moral rights conditioned on market harm

cable only in certain circumstances. The positive rule should permit the continued functioning of current law, when appropriate, such as copyright and trademark infringement, unfair competition, and trespass to chattels.

A. Competing Sites

In the case of linking sites that compete with the target site, 94 a liability rule establishing a right to link, combined with authorization for the target site to use technological means to reroute the deep linker to its home page accomplishes the twin goals of protecting site owners from harm and fostering an openly navigable Internet. The target site could also choose to restructure its advertising revenue scheme. The rule assumes potential market harm in terms of lost advertising revenue, potential consumer confusion, and trademark dilution in order to reduce transaction costs and achieve an acceptable compromise between efficiency and control. It provides some control over the integrity of the website but limits it to situations involving competitors. The rule permits the target site to determine whether it is more efficient to re-route the deep link, adjust its advertising, or simply permit the link. The payment involved in this model is not to the linking site (although the target site could always choose to pay the linking site to cease its activity), but is the cost to the target site of the re-routing technologies or advertising adjustments. Even with re-routing, the user will still be able to access the home page of the target site and arrive at the deep page, albeit with slightly greater expense of time and energy. This tradeoff is acceptable in the context of competitors. The rule would allow a trespass to chattels claim to prohibit the harmful use of spiders by competitors upon a showing of actual harm, and any trademark or unfair competition claim where there is confusion or false advertising.

With regard to competitors and non-competitors alike,⁹⁵ a broad property right in the target site is undesirable. Under Coasean analysis, such a rule minimizes transaction costs because the linking site is in the better position to determine whether the benefits outweigh the cost of obtaining the right; however, it undermines the more important consideration—that efficient access to the rapidly expanding information tool provided by the Internet is paramount, to be compromised only

^{94.} Admittedly, there is a degree of uncertainty represented by the definition of competition, and which sites are merely 'complementary.' The determination could look to trademark law for guidance. *See* Sableman, *supra* note 3, at 1337-38.

^{95.} See discussion, infra, Part IV (B).

where the target site can show harm. Refusing to minimize target site transaction costs, and requiring the use of more balanced alternatives available in the form of re-routing or advertising adjustments, promotes this goal.

A broad property right in the linking party also is undesirable. It would impose high transaction costs on the target site to negotiate transfers of the initial entitlement with competitive linking sites. These high transaction costs also impose unacceptable burdens on the target site's moral rights. It is apparent that the property rule is not nuanced sufficiently to handle the subtleties of deep linking.

B. Non-competing Sites

In the case of linking sites that do not compete with the target site, especially search engines and educational sites, an inalienability rule that creates a right to establish deep links, with narrow exceptions for market harm and harmful spidering, achieves the desired result—promoting efficiency, distributional, and equitable concerns by facilitating information access and exchange. Proof of market harm or injurious spidering would be required to permit re-routing and as an element of any civil action.⁹⁶

The harm requirements are based on the presumptions that deep linking by non-competitors enhances the navigability of the Internet, and that it does not enable the linking site to gain a competitive advantage over the target site in the relevant market; without actual harm, there is no reason to permit behaviors that decrease navigational efficiency. This harm includes lost advertising revenue, consumer confusion, trademark dilution, and any impairment associated with spidering. However spidering damage may be calculated, it may be beneficial to set the threshold higher for non-competitive linking sites than for competitive sites in order to place the cost of indexing services on those who stand to benefit most from their existence, websites that sell products and services over the Internet. The target site bears the burden of showing harm because it is in the better position to produce evidence of harm as compared with a requirement that the linking site establish the absence of harm. Furthermore, this arrangement promotes efficiency and distributional goals, protecting information exchange by motivating the

^{96.} This requirement addresses the concern of the *Tickets.com* court, that the use of spiders, absent actual harm, likely constitutes fair use under copyright law, and is not actionable as trespass to chattels without damages.

target site to establish reciprocal links or simply change its advertising scheme rather than initiate litigation. A further exception could be carved out to prevent links from sites that contain illegal content, such as child pornography.

The inalienability rule is preferable to a property or liability rule because these types of rules allow market decisions to frustrate the goal of maximizing efficient Internet navigaton.⁹⁷ For example, consider a property rule that would require noncompetitive sites to bargain with target sites for the right to use spidering or other means to collect URLs and provide deep links. Target sites might grant such access upon a showing that the spidering would not cause harm, but might also impose fees on linking sites sufficient to deter deep linking. The transaction costs of such a system would be enormous, threatening the existence of search engines and reducing the functionality of the Internet.

C. Drawing Lines

To function correctly, the proposed model requires a method to determine whether a linking site competes with the complaining site. This line-drawing can be based on an analysis borrowed from trademark law, the idea of identical or related fields of goods or services as an element of a likelihood of confusion analysis. Determination of the nature of a site would be a question of fact, although there could be a presumption that the site is noncompetitive, placing the burden of persuasion on the complaining party. Competition with the complaining site should be defined narrowly to encompass only those sites offering close substitute or complementary products. For example, Tickets.com and Ticketmaster both sell event tickets and a finding of competition is obvious, even if they sell tickets for different events. However, if the Men's Journal site interviewed an athlete and provided a link to another article about the athlete in Sports Illustrated, the two magazines should not be considered substitute products. Even though the two are similar in certain ways (both appeal to people interested in fitness and sports), Men's Journal covers a broader range of topics than Sports Illustrated's focus on competitive athletics.

^{97.} It should be noted that the inalienability rule provides space for traditional property-based claims, such as copyright or trademark infringement, when the facts of a situation so require.

V. Conclusion

The model suggested is not without its problems, particularly the tasks of defining competing sites, legal and illegal content in linking sites, and determining how tolerant of invasion by spiders a website should be. However, the benefits to society of efficient information access and exchange outweigh the costs of determining where the lines should be drawn.

The system of initial entitlements suggested by this paper preserves the open navigability that is characteristic of the Internet while respecting the rights of website owners to control access to their sites in those circumstances where real harm may result. It accomplishes these objectives in the least costly way, optimizing the total social product. Recent court decisions indicate a movement in the direction that this paper advocates. Courts are making this move aboard established property, tort, and contract regimes, and until the legislatures act, they will continue to do so. However, the recommendations of this paper can serve as initial guidelines first to the courts and their efforts under the current legal structure, and then to the legislatures when they act to clarify and simplify the rights and liabilities related to deep linking on the Internet.