The inventor of the hyperlink, Tim Berners-Lee, has specifically declined to grant permission to link to his website. Permission is unnecessary, he says, in an expression of his firm belief in the free-linking ethos of the Internet. ¹ Indeed, the World Wide Web is premised on a basis of linking as a channel for free distribution of information. Our Internet culture was founded on this notion of free accessibility. ² Nevertheless, as Internet pioneers and netizens have been forced to accommodate the arrival of traditional business and corporate interests in the online environment, intellectual property notions of entitlements and exclusion have begun to threaten the practice of linking.

Online distribution of information without prior permission from site owners may infringe the intellectual property rights of third parties, if a site’s content meets the threshold for protection, and a court considers linking to infringe that content. Although copyright and unfair competition claims against deep linking practices have been largely unsuccessful in the United States, the 1996 European Community Directive on the Legal Protection of Databases (“the Directive”) ³ has been successfully deployed in Germany and Denmark to make deep linking illegal. In those countries, deep linking has been held unlawful when commercial interests are involved by granting sui generis ⁴ protection to the creator of a database for qualitative or quantitative investment in the obtaining, verification, or presentation of its contents. If linking is construed as extraction and/or reutilization of a whole or substantial part of the contents of the database—acts from which the database creator is protected by the sui generis right—the elements of an infringement claim have been met. While web activists fear that the free access principles of the Internet may be threatened by this legal development and Internet users have predicted that targeted

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² Id.


⁴ “Of its own kind or class; i.e., the only one of its own kind; peculiar.” BLACK’S LAW DICTIONARY 1286 (5th ed. 1979).
search engines\(^5\) will relocate outside the European Union (E.U.) to avoid the Directive’s reach, legal commentators suggest that a misappropriation analysis might be more appropriate for assessing injury to site owners than the copyright-like protection on which the current interpretation is based.\(^6\) Commentators in both Europe and the U.S. have raised policy concerns about the increasingly common interpretation of the Directive that grants copyright-like protection to a collection of links on a web page. Meanwhile key notions of the Directive, which grants \textit{sui generis} protection for “sweat-of-the-brow” investment\(^7\) in compiling information for databases and organizing that information, have yet to be fully clarified by the case law of Member States or the European Court of Justice.

Part I of this Note will introduce the key legal issues that frame database right claims brought against linkers and explore the legal rules and Internet custom that have developed to govern reference to online content. Part II outlines the key provisions of the Directive, focusing on the \textit{sui generis} protection of “substantial investment” in “the obtaining, verification or presentation of the contents” of a database.\(^8\) Part III summarizes cases where database creators have made successful claims against deep linkers for the “extraction and/or reutilization”\(^9\) of parts of their databases. Finally, this Note raises some of the policy concerns implicated by application of the Directive’s \textit{sui generis} right to the case of deep linking.

\(^{5.}\) Search engines locate open content by scouring the Web for sites or pages that have been linked to or submitted as links by someone (such as the Webmaster or page author). See, e.g., Gary Price, \textit{Web Search Engine FAQs: Questions, Answers and Issues}, 9 Searcher 9 (2001), available at http://www.infotoday.com/searcher/oct01/price.html.


\(^{7.}\) This grants copyright-like protection to databases that are not creative but are based on a certain level of effort or investment. See, e.g., Submission from the European Community and Its Member States: The Legal Protection of Databases 1 (Nov. 22, 2002), at http://europa.eu.int/comm/internal_market/en/intprop/news/wipo-protection-db_en.pdf.

\(^{8.}\) E.C. Directive, \textit{supra} note 3, at ch. III, art. 7(1).

\(^{9.}\) Id.
I. DEEP LINKING

A. Terminology

A "hyperlink" directs web browsers to another document (an external link) or to another part of the same document (an internal link). This instruction takes the form of HTML code that incorporates the domain name of the linked site while appearing on screen as a word or image. The document retrieved by the browser is displayed on the user's screen in its original form without any reference to the linking site. Since hyperlinks are nothing more than a shortcut to avoid the hassle of typing in the address of another document on the web, links can be established without the knowledge of the owner of the linked site. The use of hyperlinks does not make any extra copies of the work other than the one created in the user's computer memory, which is required in order to view the linked web page.

An external link that transfers an Internet user from the web page of a linking site to the homepage of another linked site is referred to as a "surface link." A "deep link," by contrast, connects the user to an interior page of the site (i.e. any page other than the homepage), circumventing any information posted on the homepage.

B. The Legality of Linking

Under U.S. and European case law, and as a matter of Internet custom, there is an implied license to hyperlink to a site's homepage. Participat-
ing in the Internet forum by posting content on a site implicitly authorizes others to refer to and copy that material. Thus, express permission is not needed by a site owner to establish a link to the homepage of another site.

The issue is more complicated when deep links are made to one of a site’s interior pages. Given the potentially conflicting interests of the linking and linked site, some commentators argue against conferring an automatic license. Those favoring explicit permission requirements for deep linking argue that the owner of a site implicitly grants a license to browse the site, but only in the way that the creator of the site intended and designed it. In particular, deep links bypass restrictive clauses and homepage advertising, leading to potential site misuse or a loss of profit for the operator of the linked site. However, site owners often design


16. The Düsseldorf Court of Appeals confirmed this analysis in a case involving framing where the plaintiff was seeking relief for an alleged act of unfair competition, stating that “those who post web pages on the Internet must realize that there may be references [to their pages] and it can be assumed that they have authorized them. Access to these pages from the outside, namely by means of links, allows for a rapid and effective dissemination.” Baumarke.de, Oberlandesgericht (Court of Appeal) Düsseldorf, June 29, 1999, at http://www.netlaw.de/urteile/olgD_2.html; see also Algemeen Dagblad a.o. v. Eureka, President District Court of Rotterdam, Aug. 22, 2000, translated at http://www.ivir.nl/rechtspraak/kranten.com-english.html.

Hyperlinks are the functional core of the world wide web ... Although titles of news reports can be protected by copyright, the reproduction of those titles on the internet for the benefit of hyperlinks referring to those reports is the most appropriate and common way to fill the hyperlink to the report concerned. By placing the reports and articles concerned with these titles on the Internet the Newspapers granted implicit permission to use these titles to hyperlink.

*Id.*


18. See Garrote, supra note 12 (“In this case there is not a juris tantum presumption allowing the deep link, because the economic exploitation of the work is affected ... However, commentators point out that deep links could be authorised under the tacit license doctrine when the web page does not contain any banner, and courts in some civil law countries have authorised deep links under certain circumstances.”


20. *Id.*

their sites to prevent deep linking to internal content, a practice supporting
the assumption that site owners have given an implied license when such
restrictive measures are not taken.\(^{22}\) Furthermore, an implied license to
link need only be granted if the site owner has an underlying right to con-
trol linking in the first place, a premise that is widely contested.\(^{23}\) Finally,
many site designers insist that the technical distinction between a deep and
surface link is artificial and therefore that the analysis for deep linking to a
site’s interior pages should be consistent with arguments of an implied li-
cense for linking to a homepage.\(^{24}\)

Although the few claims against deep linking brought in U.S. courts
have been rejected,\(^{25}\) these arguments have shown more promise in
Europe.\(^{26}\) The highest court in Hamburg, Germany decided that a com-
pany does not have to allow direct competitors to link to its site.\(^{27}\) Just as a
company can resist unwanted advertisements, the court reasoned, the

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23. See generally Berners-Lee, supra note 1.

24. See, e.g., Michelle Delio, Deep Link Foes Get Another Win, WIRED NEWS (July 8, 2002), at http://www.wired.com/news/print/0,1294,53697,00.html (last visited Sept. 2, 2002) (quoting a web designer as saying that “No link is technically or physically ‘deeper’ or ‘lower’ than any other; all items with their own distinct linkable locations are completely equal . . . . This idea of deep linking is a totally new and artificial construct.”).

25. In Ticketmaster Corp. v. Tickets.Com, Inc., the court rejected copyright infringement and unfair competition arguments by the plaintiff, holding deep linking acceptable so long as surfers can discern the source of the linked page. The Court analogized hyperlinks to traditional indexing techniques as benign and helpful. 2 Fed.Appx. 741, 2001 WL 51509 (9th Cir. 2001). The court in Kelly v. Arriba Soft Corp. held that the fact that search engine links allowed users to bypass plaintiff’s front page, making it less likely that users would see all of plaintiff’s advertisements and promotional messages, is not sufficient evidence of harm or adverse impact. 77 F. Supp. 2d 1116 (C.D. Cal. 1999), rev’d on other grounds, 280 F.3d 934 (9th Cir. 2002). For further discussion of this case, see infra Part II(B)(2)(a).


plaintiff can resist unwanted attention from deep linkers. An even more recent case by the lower court in Hamburg held that the operator of a site could unilaterally forbid another from linking to it for any reason at all. Despite the increasingly common situation in which a linked site owner claims the right to authorize and control links, many commentators continue to maintain that most linking to content willingly placed on the Internet is fair and lawful. The sui generis protection provided by the Directive, however, is more comprehensive than the existing U.S. copyright law on which much of this commentary is based, thus it is possible—or even inevitable, as some would hold—that European deep linking case law will diverge from its U.S. counterpart. In addition to the threat to free access to information, which will be explored in more detail below, recent case law raises the concern that inconsistent interpretations of the Directive by Member States' national courts enable the Directive's sui generis right to hold suspect the practice of linking.28 29 30 31

II. THE DATABASE DIRECTIVE

Harmonizing inconsistent law within the E.U. and responding to the U.S. Supreme Court's decision in *Feist Publications, Inc. v. Rural Tel. Serv. Co.*, the Directive provided copyright protection for the structure

28. *Id.*
29. *Id.*
31. *See, e.g.,* Mark D. Evans, *Protection of Data on the Internet*, 1 I.P.Q. 50, 73 (2002) ("There will also, no doubt, be further cases where parties attempt to use the European Database Directive to protect web sites from linking, framing and re-use of content.").
32. *Id.*
33. While the common law jurisdictions of the United Kingdom and Ireland had a very low requirement for originality and the five Nordic states (Sweden, Norway, Denmark, Iceland and Finland) had applied a "catalogue rule" similar to this "sweat of the brow" doctrine since the 1960s, courts in other countries applied a more rigorous test of originality. In the Netherlands, for example, a database could only qualify for copyright protection if it was original in the sense that it possessed a character of its own in which the personal selections and ideas of the author were expressed, but pseudo copyright protection could be invoked to protect the copyright owner from copying of the full collection of data. Courts in France and Germany tended to be less rigorous in their application of the originality requirement, but the standard was higher than "sweat of the brow." *See generally* E. J. Dommering & P.B. Hugenholtz, *Protecting Works of Fact* 93-96 (1991).
34. 499 U.S. 340, 347 (1991). The U.S. Supreme Court specifically rejected the "sweat of the brow" doctrine. The Court raised the standard for database protection at the constitutional level, holding that copyright in databases extends not to the pre-existing materials or data themselves, but to the author's judgment in selecting and arranging the
and organization of databases and *sui generis* "sweat of the brow" protection to substantial investments for a term of fifteen years from the date of a database’s creation or each “substantial new investment thereafter.”

Each Member State has implemented the specific provisions of the Directive dealing with copyright protection within its existing copyright law. To receive *copyright* protection, the collection must be sufficiently original. The owner of a protected database has exclusive authorization rights to copy, distribute to the public, and make derivatives of the protected work. A lawful user of the database may perform any of these acts if necessary to access the contents of the database.

Under the Directive’s mandate, separate laws have been implemented in each jurisdiction to provide *sui generis* protection to the investments in creating a database. This *sui generis* right protects the “sweat of the brow,” or the substantial skill, money and energy invested in the selection and arrangement of the contents of the database by the producer. The

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36. *Id.*
37. To be “original,” the database must, by reason of the selection or arrangement of its contents, constitute the author’s own intellectual creation. See E.C. Directive, *supra* note 3, at ch. II, art. 3.
38. More specifically: (a) temporary or permanent reproduction by any means and in any form, in whole or in part; (b) translation, adaptation, arrangement or any other alteration; (c) any form of distribution to the public of the database or copies thereof (subject to first sale exhaustion); and (d) any reproduction, distribution, communication, display or performance to the public of a translation, adaptation, arrangement, or other alteration. See E.C. Directive, *supra* note 3, at ch. III, art. 5.
39. Member states have implemented this provision in varying forms and it is not clear to what extent database owners may contract around it. See *Lucie M.C.R. Guihault, Copyright Limitations and Contracts: An Analysis of the Contractual Overridability of Limitations on Copyright* (2002).
41. See E.C. Directive, *supra* note 3, at ch. III, art. 7(1) (“Member States shall provide for a right for the maker of a database which shows that there has been qualitatively and/or quantitatively a substantial investment in either the obtaining, verification or presentation of the contents to prevent extraction and/or re-utilization of the whole or of a
Directive also allows perpetual renewal of the sui generis protection following each “subsequent new investment” in the database.\(^{42}\) Protected databases must constitute individually accessible data arranged in a “systematic or methodical” way and be “individually accessible by electronic or other means.”\(^{43}\) Courts have read the definition of “database” so broadly that most compilations qualify as a database; thus, most of the case law has focused on defining the “substantial investment” necessary for a protected database.\(^{44}\)

\(^{42}\) See E.C. Directive, supra note 3, at ch. III, art. 10 (3).

\(^{43}\) See id. at ch. I, art. 1(2).

\(^{44}\) Assuming the “substantial investment” requirement is met, various courts have held that not only are factual data (such as information about the times and places of horse races and telephone directories) and information in the public domain (such as laws and regulations) contained in the databases protected, but the Directive’s notion of database also covers works of authorship (such as an anthology, encyclopedia, CD-ROM-based multimedia collections, sets of World Wide Web sites or paper and electronic card catalogues). See British Horseracing Bd. (BHB) v. William Hill Organization Ltd., High Court of Justice, Feb. 9, 2001 (horse racing); France Telecom SA v. MA Editions, Tribunal de commerce de Paris, June 18, 1999 (telephone directories); Vermandev v. Bojkovski, President District Court, The Hague, Mar. 20, 1998 (CD-ROM), translated at http://www.ivir.nl/rechtspraak/vermande-en.html; see also Michael J. Bastian, Protection of “Non-Creative” Databases: Harmonization of United States, Foreign and International Law, 22 B.C. INT’L & COMP. L. REV. 425 (1999).

Furthermore, although the independent and individually accessible requirement excludes “a recording or an audiovisual, cinematographic, literary or musical work,” it is not necessary under the Directive for the elements to have been “physically stored in an organized manner.” See E.C. Directive, supra note 3, at pmbl., recital 17, 12. While one German court says that an organized appearance is sufficient, many commentators and courts interpret this clarification to qualify “a collection of unorganized data fixed on a hard disk or other digital medium” when “combined with database management software enabling retrieval of the data.” C.-Netz, Kammergericht (Court of Appeal) Berlin, June 9, 2000, available at http://www.jurpc.de/rechtspr/20000216.htm; see also P. Bernt Hugenholtz, The New Database Right: Early Case Law from Europe (paper presented at Ninth Annual Conference on International IP Law & Policy, Fordham University School of Law, New York, Apr. 19-20, 2001), at http://www.ivir.nl/publications/hugenholtz/fordham2001.html (last modified Dec. 1, 2002). [hereinafter The New Database Right]. Additionally, some of the newest case law suggests that the requirement of systematic and methodical arrangement does not imply quick and efficient access to the data. Wegener et al v. Hunter Select, Gerechtshof (Court of Appeal), Leeuwarden, Nov. 27, 2002, available at http://www.rechtspraak.nl/uitspraak/frameset.asp?ui_id=41627.
The substantial investment must be made in the “obtaining, verification or presentation of the contents” of the database. The relevant inquiry may be based on either a quantitative evaluation of the amount of labor involved in collecting and compiling the data or on qualitative investment inferred by examining the database itself. European courts have held that low, even mundane, levels of investment satisfy the “substantial” requirement. In a typical example, one German court found a collection of 251 alphabetically ordered web links on parenting topics to have required substantial enough investment to be protected on the basis of the work that went into “compiling, researching and up-dating the list.” In Germany, online classified ads, job postings, real estate listings, telephone directories, and lists of hyperlinks have all been held substantial enough investments to be protected as databases. The database owner may even

45. E.C. Directive, supra note 3, at ch. III, art. 7(1). One European commentator, P. Bernt Hugenholtz, defined these terms further. “The ‘obtaining’ obviously refers to the collection of data, works or other materials comprising the database. ‘Verification’ relates to the checking, correcting and updating of data already existing in the database. ‘Presentation’ involves the retrieval and communication of the compiled data, such as the digitalization of analogue files, the creation of a thesaurus or the design of a user interface.” The New Database Right, supra note 44, at 3.

46. The language of the Directive distinguishes between quantitative and qualitative in the substantial investment requirement, but not all countries have implemented this distinction in their national law. Germany, the Netherlands and Belgium are among the countries that utilize this language. Denmark and the United Kingdom do not.

47. Referring to the English rule of thumb “what is worth copying is worth protecting,” one German court held that in order to achieve the aims of the Directive, a low standard of substantiality should be applied and that “small” databases should be protected as well. Amtsgericht (Lower Court), Rostock, Feb. 20, 2001, available at MULTI-MEDIA UND RECHT, 9/2001, p. 631-632.

48. The New Database Right, supra note 44, at 14 (discussing the case of Kidnet/Babynet, decided by the Landgericht (District Court) Köln, Aug. 25, 1999).


protect database works created by third parties where the owner’s investment was purely financial.\textsuperscript{54}

After meeting the threshold requirements for substantial investment in a protectable database, the database owner may invoke her \textit{sui generis} rights to prevent “extraction” or “reutilization” of the database as a whole or “of a substantial part.”\textsuperscript{55} Unquestionably, the appropriation of an entire database would constitute infringement of the \textit{sui generis} right. Repeated or systematic extraction or reutilization of “qualitatively or quantitatively insubstantial parts of the database” are also deemed an infringing usage of essential parts of the database, provided that these acts can be characterized as inconsistent with “normal exploitation of the database” or if they “unreasonably prejudice the legitimate interests of the maker of the database.”\textsuperscript{56}

\textsuperscript{54} In C.-Netz, \textit{supra} note 44, even though development and technical operation was carried out by a data processing company, plaintiff qualified as an owner because of substantial fees paid to the commissioned party. Kammergericht (Court of Appeal) Berlin, June 9, 2000, \textit{available at} http://www.jurpc.de/rechtspr/20000216.htm.

\textsuperscript{55} E.C. Directive, \textit{supra} note 3, at ch. III, art. 7(1) (“Member States shall provide for a right for the maker of a database . . . to prevent extraction and/or re-utilization of the whole or of a substantial part, evaluated qualitatively and/or quantitatively, of the contents of the database.”).

\textsuperscript{56} E.C. Directive, \textit{supra} note 3, at ch. III, art. 7(5). Balanced against protection of the commercial interests of database creators is the public interest in the free exchange of information. \textit{See} Thakur, \textit{supra} note 34, at 118. Besides holding that insubstantial extractions and reutilization of publicly-available databases are not infringing uses, the Directive protects public lending by not classifying it as extraction or re-utilization. E.C. Directive, \textit{supra} note 3, at ch. III, art. 7(2)(b) (“Public lending is not an act of extraction or re-utilization.”); \textit{id.} at ch. III, art. 8(1) (“The maker of a database which is made available to the public in whatever manner may not prevent a lawful user of the database from extracting and/or re-utilizing insubstantial parts of its contents . . . .”). The Directive further enacted a first sale doctrine that extinguishes the database creator’s right to control resale following the first sale of the database. \textit{Id.}, at chi. III, art. 7(2)(b). It also permits Member States to enact exceptions consistent with “fair use” principles. \textit{Id.} at ch. III, art. 9 (gives Member States the option to provide lawful users of publicly available databases the right to privately reproduce non-electronic databases; the right to use for non-commercial teaching/scientific uses; and the right to use for governmental security, administrative or judicial purposes). The Directive further contemplates the public interest in free competition by mandating a triennial review of the \textit{sui generis} regime to determine whether anticompetitive effects require the establishment of a compulsory licensing scheme. \textit{Id.} at ch. III, art. 16(3).
III. THE DATABASE DIRECTIVE AS A HOOK TO HOLD “DEEP LINKING” UNLAWFUL

Linking to a site without the permission of its author has not only been an essential, assumed part of the Internet’s use, but it even bestows benefits on the linked site.\textsuperscript{57} The frequency of visits to a site serves as an indicator of the site’s prestige and, in the case of advertising-based models, determines the rate that advertisers pay site owners.\textsuperscript{58} Nevertheless, there is a lack of consensus in both the U.S and Europe on whether deep linking can constitute copyright infringement, because it is uncertain whether site owners have any rights to regulate references to content on their sites and, if so, whether deep linking violates any of these rights.\textsuperscript{59} By contrast, the \textit{sui generis} database right has recently been applied to constrain unwanted deep linking in Europe.\textsuperscript{60} Because \textit{sui generis} protection may be granted under the Directive for both the collection of web pages in a site as well as for collections of corresponding links, the \textit{sui generis} protection implicates the operation of search engines, which have been targeted in the most recent litigation.\textsuperscript{61} Although storing a whole web page or abstract in a search engine’s database constitutes copyright infringement under most European copyright law, European courts are now beginning to consider whether Uniform Resource Locators (URLs), titles, and catch words are protectable under the \textit{sui generis} database right and, if so, whether the scouring of bots constitutes unlawful extraction under the Directive.\textsuperscript{62}

\begin{footnotesize}
\textsuperscript{57} Frequency of visits to a site serves as an indicator of the site’s prestige and, in the case of advertising-based models, determines the rate that advertisers pay site owners. Dogan, \textit{supra} note 15, at 840-41.
\textsuperscript{58} \textit{Id.;} see, \textit{e.g.}, Nettracker, \textit{at} http://www.sane.com/products/NetTracker/web.html. (last accessed Mar. 3, 2003).
\textsuperscript{59} \textit{See generally} Sableman, \textit{supra} note 15, at 1331.
\textsuperscript{61} \textit{See, e.g.}, Wiebe, \textit{supra} note 19.
\textsuperscript{62} \textit{Id.} “Bots” is short for “robot” or a “computer program that performs a function such as forwarding e-mail, responding to newsgroup messages, or searching for information.” See, \textit{e.g.}, \textit{High Tech Dictionary}, \textit{at} http://www.computeruser.com/resources/dictionary/. (last accessed March 3, 2003).
\end{footnotesize}
A. Before the Directive

In an early case before the Directive, \textit{Shetland Times v. Jonathan Wills and Zetnews},\textsuperscript{63} involved the Shetland News site posting links to the full-text of articles on the Shetland Times’ site. The Times claimed that the News’ hypertext links using its headlines constituted infringement and would mislead users into thinking that the articles were part of the News. The News responded by emphasizing the public interest in comprehensive news reporting and the free access principle of the Internet.\textsuperscript{64} Nonetheless, the judge granted an interim interdict, preliminarily enjoining the News’ linking practices. The court’s decision did not turn on the legality of linking, but on the narrower question of whether the Times’ headlines were copyrightable expressions and whether the Times’ site could be considered a “cable program” under a unique Scottish law. However, relying heavily on the harm of potential advertising loss to the Times, the court noted in its decision that the News’ links to some of the Times’ stories permitted readers to get access to the Times’ while “bypassing the [Times’] front page and accordingly missing any advertising material which may appear on it.”\textsuperscript{65} While this early case raised many important questions about the status of deep linking, the case settled and, thus, was


\textsuperscript{64} See, e.g., Internet Publisher Doesn’t Want the Hits, SHETLAND NEWS, Oct. 16, 1996, at http://www.factnet.org/shetland2.html (“The principle of the Internet is free access. We have no turnstile where we vet or charge readers. Nor do you. What we have done, are doing and will continue to do is direct our readers to your web site on those occasions when your six editorial staff manage to come up with a story which our single member of staff has either missed or not got around to writing.”); Courtney Macavinta, Scottish Link Suit Settled, CNET NEWS, Nov. 11, 1997, at http://news.cnet.com/news/0,10000,0-1005-200-3233939,00.html.; Jaqueline Paige, Scottish Court Orders Online Newspaper to Remove Links to Competitor’s Web Site, BNA PATENT, TRADEMARK & COPYRIGHT LAW DAILY, Nov. 4, 1996, at http://eon.law.harvard.edu/property00/metatags/link2.html.

\textsuperscript{65} The court stated:

The balance of convenience clearly, in my view, favoured the grant of interim interdict . . . . It was fundamental to the setting up by the pursuers of their web site that access to their material should be gained only by accessing their web directly. While there has been no loss to date, there is a clear prospect of loss of potential advertising revenue in the foreseeable future.

\textit{Shetland Times, supra} note 63, at 671.
not decided on the merits, so few definitive answers were ultimately provided.66

B. Early Case Law Under the Directive

Early cases under the Directive seemed to reject any suggestion by the Shetland court that unauthorized linking might be prevented. The database right was repeatedly rejected as a theory to constrain deep linking because such claims failed to meet the "substantial investment" requirement to qualify for protection.67 Thus, a case brought by a group of Dutch newspapers68 against Kranten.com, a site providing deep links to newspaper articles posted online, failed because the court held that the alphabetized list of headlines on the newspapers’ sites did not satisfy the Directive’s requirement of a substantial investment.69 Moreover the plaintiff’s investment was made primarily in gathering the reports and articles to fill the off-line newspapers and the titles were invented thereby as headlines.70 This line of reasoning typifies the spin-off doctrine71 used by Dutch courts

66. Notably, the parties ultimately settled in favor of free access, although they effectively negotiated a license for use of the links. The parties came to a settlement under which the Shetland News was allowed to link to Shetland Times under the following conditions: (1) the link had to be acknowledged by the legend “A Shetland Times Story” placed underneath the headline used as pointer; (2) the Shetland Times logo had to be featured on a button adjacent to the pointer; (3) the legend and the button had to be hypertext links to the title page of the Shetland Times’ site. See Macavinta, supra note 64.


68. Algemeen Dagblad, NRC Handelsblad, Trouw, de Volkskrant, Het Parool and Rotterdams Dagblad.

69. Algemeen Dagblad, supra note 16. Although Kranten.com conceded that a collection of newspaper article headlines could be considered a database as such, the court held that a list of headlines that had been published in the printed newspaper did not represent a substantial investment. Serge J.H. Gijrath & Bart Jan E. Gorissen, Applying the Database Act to On Line Information Services: A Trial and Error Exercise, COPYRIGHT WORLD 25, at 25, 26-27 (2000/2001).

70. Id. The newspapers also lacked the required quantitative investment because the seven employees involved in maintaining the site were considered negligible in comparison to the total number of persons involved in the production of printed newspapers. Id.

71. Some Dutch courts denied protection to databases under this doctrine on the basis that there was not a substantial investment, as required by the Directive, because this information had to be created anyway in conjunction with the non-database activities of the business. In the Algemeen Dagblad case, for instance, the headlines were found to be a “spin-off” of newspaper publishing. See generally Stephen M. Maurer, Across Two Worlds: Database Protection in the US and Europe, at 29-31 (paper prepared for Industry Canada’s Conference on Intellectual Property and Innovation in the Knowledge-Based Economy, May 23-24, 2001) (on file with author), available at http://strategis.ic.gc.ca/pics/ipf maurer.pdf
to rebuff Directive claims. Insisting that harm caused to the newspaper was insufficient to constitute a violation even if the newspapers were eligible for *sui generis* protection, the court rejected the plaintiff’s argument that deep links cost publishers advertising revenue. Without damages, the court reasoned, the fact that the defendant profited from the plaintiffs’ investments in their newspapers “cannot be considered to be wrong.”

The court also relied on arguments relating to Internet practices, specifically that deep linking is “customary and generally acknowledged on the Internet” and that the publishers could have prevented the deep links by technical means but chose not to do so.

By contrast, echoes of the *Shetland* opinion have found their way into German, Dutch and Danish case law during the last two years, opening the door to successful claims against deep linking using the database right. In *Stepstone v. Ofir*, a Norwegian recruitment company (Stepstone) sued in German court to enjoin a Danish competitor (Ofir) from deep linking to employment ads on its site. The court held that Stepstone’s ads were indeed protected as a database and granted an injunction against Ofir’s linking. In contrast to *Kranten.com*, the court found that there had been a substantial investment in compiling the information for the database and posting it online. The court’s analysis was fairly nonrigorous in finding harm to the plaintiff: notwithstanding an absence of demonstrated injury or deployment of technological solutions, the court held that the potential loss of income for the linked to site violated Article 87b of the German copy-

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72. “With regards to the advertising income it is likely that the existence of kran
ten.com at the same time has also a promotional effect drawing more visitors to the sites of the Newspapers . . . . As far as the Newspaper lack income because (most) advertisements have not been on the most frequented pages such a consequence follows from their own choice. Damage resulting from it cannot be attributed to Eureka.”


74. *Id.* at § 3.3.

75. Stepstone, *supra* note 50.


77. The court dismissed the defendant’s argument that the substantial investment inquiry should ignore costs incurred in building the database itself and focus only on those related to the provision of information to the market. According to the court opinion, 40 people were involved in acquiring the postings for the database and 36 people were involved in arranging it in database format and posting it online. See Zur Zulaessigkeit von “Deep Links,” *JURPC: INTERNET-ZEITSCHRIFT FUER RECHTINFORMATIK* 138/2001, para. 1-29, at http://www.jurpc.de/rechtspr/20010138.htm.
right law, which implements the Directive’s exclusive rights granted to the database creator.\textsuperscript{78}

In the Netherlands, the spin-off doctrine analysis is now being given short shrift. In \textit{ElCheapo.nl}\textsuperscript{79} the court addressed whether the protection of a database can still be upheld if it is used for spin-off purposes—that is, for a purpose other than that for which the substantial investment required by law was originally made by the producer. Applying the spin-off doctrine to distinguish between an offline and an online database, the lower court held that a collection of real estate objects on a site did not qualify

\textsuperscript{78} \textit{Id.} According to an unofficial translation, German copyright law Art. 87a defines database as “a collection of works, data or other independent elements arranged in a systematic or methodical way the elements of which are individually accessible either by electronic or by other means, and the obtaining, verification or presentation of which requires a qualitatively or quantitatively substantial investment.” Press Release, Newsclub.de, German Legislation: Is there a right to retrieve information from public sources at all? (Aug. 13, 2002), \textit{available at} \url{http://www.newsclub.de/-prozess/pressrelease2.html}. In Article 87b the rights of the database creator are defined:

The maker of the database has the exclusive right to reproduce, to distribute and to communicate to the public the whole database or a qualitatively or quantitatively substantial part thereof. The repeated or systematical reproduction, distribution or communication to the public of qualitatively and quantitatively insubstantial parts of the database shall be deemed as equivalent to the reproduction, distribution or communication of a qualitatively or quantitatively substantial part of the database provided that these acts run counter to a normal exploitation of the database or unreasonably prejudice the legitimate interests of the maker of the database.

\textit{Id.}

\textsuperscript{79} NVM v. De Telegraaf, Hoge Raad (Supreme Court of the Netherlands), Mar. 22, 2002, \textit{available at} \url{http://www.rechtspraak.nl/uitspraak/frameset.asp?ui_id=32352} \[hereinafter ElCheapo.nl\]. The plaintiff in this case, the Dutch real estate brokers association, NVM, operates a site that provides free access to its database of private real estate for sale. The site offers various search options such as location, type and price range. Each item on the list of objects appearing on the screen after the visitor has entered the criteria is a hyperlink to a page which contains a further description of the object. The defendant newspaper, De Telegraaf, operates a search engine which allows the visitor to search for private real estate by using similar criteria. The engine searches through several real estate databases, including NVM’s, and displays the collected data. Although the list presented has its own “look and feel,” more than four of the five of the items displayed on the El Cheapo site originated from the site of NVM. The defendant newspaper argued that a substantial investment was lacking because the database was merely a spin-off of NVM’s primary activity of selling real estate. \textit{See The Database Act: The End of the “Spin-Off” Doctrine?} \textbf{LEGAL INFOSOC NEWS KIOSK,} 5-6, May-June 2002, \textit{at} \url{http://www.vocats.com/vocats/LeGoueff.nsf/LABNewsEng/E5E6F72C79734BB7C1256BCE002F4740/$file/Tocl0612763}. 
for the *sui generis* database right because individual real estate brokers in the plaintiff organization had designed it for use in an internal network. However, the Netherlands Supreme Court rejected this reasoning, suggesting that substantial investment is not necessary for each purpose of the database and, thus, that the investments made in the offline version should also be taken into account with respect to the online database. The Court reasoned that the protection of the database and the purpose for which it is used must be treated as two separate issues. Thus, a substantial investment is required in order to acquire protection, but the Dutch implementation of the Directive does not require a separate substantial investment for the use of a database.

C. Recent Cases

The most recent cases under the Directive have set the threshold for infringement surprisingly low. A high profile case in Denmark was filed by the Danish Newspaper Publishers Association (Newspapers) against Newsbooster, a headline aggregator that searched the Newspapers’ sites using key words provided by paid subscribers. Arguing that Newsbooster’s links had deprived them of advertising revenue and that this practice was particularly unfair since Newsbooster was a direct competitor, the Newspapers sought to enjoin these deep links. Newsbooster argued that it clearly attributed the source of the link and that it did not store electronic copies of the articles in its internal database. The court enjoined Newsbooster from reproducing the Newspapers’ headlines or deep linking to their articles, holding that the Newspapers’ collections of articles were databases protected under the Directive, thus their exclusive right under Section 71 of the Danish Copyright Act had been in-
fringed.\textsuperscript{89} Citing Newsbooster’s annual subscription fee and the fact that its business is based on the news media, the court reasoned that the company has a commercial interest in accessing the articles and headlines. Crucial to the court’s decision was its characterization of Newsbooster as a news communication service in competition with the plaintiffs and predictions of advertising revenue loss by expert testimony. The court denied injunctive relief to several of the Newspapers, finding they had prevented deep linking by technological measures. Nevertheless, the absence of actual damages beyond the predictive expert testimony seemed to many commentators to be a significant expansion of the property-like rights of database owners.\textsuperscript{90} Newsbooster announced it is waiting for other Danish or international technology companies to intervene before taking the case to the higher court in Copenhagen.\textsuperscript{91}

A similar German case filed against the news search engine Newsclub.de (Newsclub) by the publishing company Handelsblatt for deep linking to its newspaper articles has resulted in a provisional ruling for Handelsblatt by Munich’s highest court.\textsuperscript{92} This case is particularly significant because the challenge is based on the Directive itself, rather than the implementation law of an individual Member State.\textsuperscript{93} Given that Newsclub did not charge its users, this represents a considerable expansion of the Newsbooster holding and creates a significantly lower threshold for harm.

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\textsuperscript{89} Newsbooster’s repeated scouring of the Newspapers’ sites to compile lists of headlines and links according to subscribers’ search criteria constituted both “repeated and systematic” reproduction, extraction and re-utilization of insubstantial parts of the contents of the database implying acts which conflicted with a normal exploitation of the database and “unreasonably prejudice” the plaintiffs’ interests. See Newsbooster, supra note 83.

\textsuperscript{90} See, e.g., Dänisches Gericht verbietet Deep Linking, HEISE ONLINE, July 6, 2002, at http://www.heise.de/bin/nt.print/newsticker/data/wst-06.07.02-000/?id=c30d3cebe&todo=print.

\textsuperscript{91} Id.


\textsuperscript{93} Id.
The order, which is likely to be affirmed in the hearings ahead,\textsuperscript{94} contrasts with a favorable verdict for another search engine, Paperboy.de, which awaits the German federal court after a ruling from the highest court in Cologne.\textsuperscript{95}

As Europe waits for these cases to be appealed, there is a general consensus that the case law provides little meaningful guidance on the legal status of deep linking under the Directive. Several key notions of the Directive, such as the definition of "substantial investment," continue to be interpreted inconsistently by national courts. Meanwhile, word from the European Court of Justice, which is due to issue an advisory opinion on the \textit{British Horseracing} case submitted to it last year, is awaited.\textsuperscript{96} Further, a recently-completed progress report on the triennial review called for by

\textsuperscript{94} Press Release, Newsclub.de, \textit{supra} note 78.

\textsuperscript{95} \textit{Paperboy.de}, Oberlandesgericht (Court of Appeal) Köln, Oct. 27, 2000, available at \textit{MULTIMEDIA UND RECHT}, 6/2001, pp. 387-391. Defendant newspaper search engine browsed through several online versions of newspapers, collecting the headlines of the articles in the process and deep linking to the relevant web pages from its site. The headlines could be selected on the basis of search words and then forwarded by e-mail. Although the court held that the mere copying of headlines does not constitute copyright infringement, the online version of the newspaper was a database. Nevertheless, the substantial parts of the database were not extracted and the fact that the newspaper had been voluntarily placed online suggested that reproduction of the titles amounted to "normal use." Thus, the court concluded that there was no repeated and systematic extraction of unsubstantial parts of the database. \textit{Id}.

\textsuperscript{96} This suit was filed against a bookmaker who launched an online betting service using information from a computerized database compiled and published by the British Horseracing Board (BHB), responsible for administering the British racing industry. The BHB provided the information in its database to two companies, who were entitled to exploit that information commercially by supplying it to bookmakers and other customers. The BHB claimed that the defendant bookmaker had infringed its database right by extracting and/or re-utilizing a substantial part of the database and by repeated and systematic extraction or reutilization of insubstantial parts of the contents of the database. The defendant argued unsuccessfully that its use of the database in its online service was noninfringing since the right protected only the form of the database, whereas the defendant had merely used items of information from the database which were not individually protected. Among the issues referred to the European Court of Justice by the Court of Appeal (England and Wales) (Civil Division) in this suit filed on May 24, 2002, were:
(1) what constituted a database as opposed to the data contained in it;
(2) whether the fact that part of a database is made available to the public through a license arrangement has any significance in application of the database right; and
(3) whether a new database is created each time a database is updated.

the Directive,97 may also serve to clarify provisions that continue to be ambiguous to E.U. member states.

IV. ANALYSIS

Given that much of the recent case law implicates the standard for infringement of the database right for online actors, an important question is whether deep linking to protected “databases” constitutes prohibited extraction or re-utilization of the database, and if so, whether such uses are inconsistent with the normal exploitation of a database or unreasonably prejudicial to the legitimate interests of a database maker. Even where a reasonable interpretation of the statute may prohibit linking to internal pages of protected databases, as the Stepstone, Newsbooster and Newsclub cases would suggest, important policy considerations counsel against this reading of the Directive.

A. The Benefits of Linking

Since its founding, the Internet has fostered a cultural norm of information sharing by virtue of its decentralization and openness.98 In fact, the Internet’s interconnectivity and rapid growth were enabled by the practice of linking among web pages for users seeking information in the form of successive references.99 U.S. and European courts that have considered linking practices have accepted the fundamental role of links and search engines in the development of the Internet.100 Although the early days of


98. Since the Internet was founded in the late 1960s as part of the Department of Defense’s ARPANET project to enable computer communication between the government and government-funded researchers, this global “network of networks” has provided a means by which steadily increasing numbers of users communicate with one another and access information despite differences in machinery and physical location. The term “network of networks” is often used to define the Internet. See, e.g., Michael J. Schmelzer, Note, Protecting the Sweat of the Spider’s Brow: Current Vulnerabilities of Internet Search Engines, 3 B.U. J. SCI. & TECH. L. 12, 4 (1997). See Berners-Lee, supra note 1.

99. See, e.g., Garrote, supra note 13, at 1.

100. See, e.g., DVD Copy Control Ass’n. Inc. v. McLaughlin, 2000 WL 48512, *4 (Cal. Super. 2000) (“Links to other websites are the mainstay of the Internet and indispensable to its convenient access to the vast world of information.”), available at http://www.tomwbell.com/NetLaw/Ch07/DVDCCA.html (last visited Nov. 21, 2001) (finding that “links to other sites are the mainstay of the Internet and indispensable to its convenient access to the vast world of information”); see also Kelly v. Arriba Soft Corp., 77 F. Supp. 2d 1116 (C.D. Cal. 1999). European courts have acknowledged the impor-
the Internet have given way to the new marketplace of the Web, site owners continue to provide links for educational, informational, or other purposes that are not exclusively commercial. This information loses much of its value if it is not easy to find.

However, the fact that computers are linked together to make movement from one site to another so easy has also raised legal questions about linking. Specifically, it is unclear whether linking can be prohibited under U.S. or European copyright law as an infringement of one of the exclusive rights granted to the copyright owner. Normative questions also arise about the extent to which the free linking ethos of the Internet's founders and first users should be reflected in the laws governing its use by commercial interests. Business interests are concerned about what information is shared with whom and in what context—especially when the communications may interfere with their sales and marketing or involve their competitors. As such interests have become more powerful and sought to enforce protection of their electronically distributed information, they have suggested limits to the ability to create links in the form of unfair competition and copyright infringement claims. Indeed, the legal and normative questions are inextricably linked. The question of whether there is a "right to link" becomes increasingly important as linkers struggle to formulate a response to these claims.

B. Custom of the Internet

Extra-judicial means for resolving disputes online have long been governed by netiquette, which can be thought of as a set of norms for Internet communication. Custom often serves as a source of law and commentators have suggested that it is desirable for the law to reflect what people actually do in practice. The netiquette of linking suggests that it is per-

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104. Id.

105. See Strowel & Ide, *supra* note 17, at 414.

106. See, e.g., O'Rourke, *supra* note 22, at 642-43; Richard Danzig, *A Comment on the Jurisprudence of the Uniform Commercial Code*, 27 STAN. L. REV. 621, 626 (1975) (arguing that Article 2 ("Sales") of the Uniform Commercial Code largely reflects its drafters' beliefs that law is revealed by the practices of concerned parties).
The efficiency rationale for this general rule is the potentially onerous volume and high cost of processing requests. The policy mandate it promotes is the openness of the Internet and the overall purpose of the Web.

The view of technologists is that by choosing to post a site, the web publisher opts into a system in which other documents may link to her site. She may counter the presumption of free linking or opt out of that system by restricting access to her site through technological barriers, just as a landowner prevents trespass by building a fence around her property. Possible solutions are password-protected content, firewalls, periodically changing the page’s URL, dynamic paging, and Java navigation programs. There are also mechanisms that enable a site to prevent linking by some sites but not others; the programmer can even write the web page’s HTML code to recognize links from the undesired site and refuse to process them. Sites can also employ technology to prevent linkers from bypassing the ads on the homepage or block spiders from indexing the site in the spider’s database.

Commercial interests, meanwhile, have already turned to the mechanisms of the private sector to build such fences. Capitalizing on the symbiotic nature of the linking relationship—the ability of the linking site to link might be said to increase its value while the linked site derives a benefit from the extra traffic generated by linking—businesses are increasingly using linking agreements to “establish complementary business and marketing relationships, provide for reciprocal links, establish performance requirements, and clarify liability issues.”

107. Internet custom might also suggest that it is polite to first send an e-mail to the site’s owner informing it of the newly established link, O’Rourke, supra note 22, at 642, although Berners-Lee would disagree. See Berners-Lee, supra note 1.
108. O’Rourke, supra note 22, at 642.
109. Id. at 643.
110. Id.
111. Dynamic URL display creates path-specific URLs based on an individual user’s navigation around the site and stores them only temporarily to prevent linking. Since the web page is built only when the user executes a certain program, the reference point of the dynamic pages changes, giving linkers no fixed site at which to point. See Eric Schlachter, The Intellectual Property Renaissance in Cyberspace: Why Copyright Law Could Be Unimportant on the Internet, 12 BERKELEY TECH. L.J. 15, 46 (1997) (describing various technologies that may be implemented by site operators to stop unwanted linking to their site).
112. O’Rourke, supra note 22, at 646.
113. Id. at 644.
Both commercial and non-commercial sites have also tried posting notices that prohibit linking to the site without permission or from an interior page.\textsuperscript{114} The legal value of such unilateral notices is unclear. In civil law countries the relevant consideration is whether such a notice constitutes a unilateral legal act that creates obligations.\textsuperscript{115} Some commentators suggest that the presence of notices on a linked site does not create any obligations but is a factor to be taken into account when assessing the liability of the creator of a link that caused damages—for example, loss of advertising revenues as a result of users bypassing the homepage in the case of deep linking.\textsuperscript{116} In other words, notices would enable the operators of linked sites to obtain damages more easily in the event of damaging links. In common law countries, some commentators consider notices of this kind to have no legal effect and others accord them value only insofar as “netiquette” would compel Internet users to comply.\textsuperscript{117}

In cases where the prohibition concerning the establishment of links to a site is included in the general terms and conditions of the services offered by the site, as long as it can be proved that the user accepted the terms, a contract between parties might be formed and those who link to the site notwithstanding these general terms and conditions are acting in breach of contract and may be held liable. The major problem, though, is proving that the operator of the linking site accepted the terms. Even assuming that contracts concluded online are valid, it is possible to create a link to a site without ever having visited the site. In the \textit{Ticketmaster} case, for instance, the court held that Ticketmaster failed to prove the conclusion of a contract with Tickets.com because while the latter had not been obliged to accept the terms by means of a positive act (such as clicking on an “I agree” button) it had been able to consult the pages of the site without viewing the terms of use.\textsuperscript{118} Yet, so long as click-on agreements are enforceable and sufficient proof of agreement can be demonstrated by both parties, there does not seem to be any reason why linking prohibition terms would not also be enforceable as a matter of contract law.\textsuperscript{119} Indeed,

\textsuperscript{114} Media sites that have attempted to ban linking to their material include National Public Radio (which has since backed down from this request), Belo Media and Bloomberg. Michelle Delio, \textit{Deep Link Foes Get Another Win}, July 8, 2002, \textit{at} http://www.wired.com/news/print/0,1294,5367,00.html.

\textsuperscript{115} Strowel & Ide, \textit{supra} note 17, at 413-14.

\textsuperscript{116} \textit{Id.} at 414.

\textsuperscript{117} \textit{See}, \textit{e.g.}, L.A. Stangret, \textit{The Legalities of Linking on the World Wide Web}, 2 \textit{COMM. L.} 202, 204 (1997).

\textsuperscript{118} Ticketmaster has since altered the presentation of its homepage so that the legal notice appears in the first place.

\textsuperscript{119} \textit{See} Strowel & Ide, \textit{supra} note 17, at 424, 427.
the *Ticketmaster* court even suggested in dicta that a click-on agreement might be the private contract solution to the perceived problem of linking.\(^{120}\)

None of these enforcement mechanisms has proved to be sufficient on its own. Internet custom and private agreements are often inadequate to address the conflicting interests and increasingly complex relationships between sophisticated parties. Technological solutions are often circumventable in practice and unappealing to commercial sites, worried about the effect of measures such as password protection and dynamic page solutions on their marketing strategies.\(^{121}\) Business interests have also found it difficult to leverage the value inherent in the ability to link because of the popular sentiment that requiring permission to establish a link is inconsistent with the nature of the Internet.\(^ {122}\) Even among Internet users, dissent exists on questions such as deep linking or the appropriate Internet custom in the case of an association between two sites that the linked site finds objectionable.\(^ {123}\)

Nevertheless, some maintain that a new norm is emerging among business interests—the norm to enter into linking agreements and to restrict access to sites by building technological fences—as web revenue models evolve and the profitability of site content increases.\(^ {124}\) Others suggest that separate norms for commercial and noncommercial linkers will emerge.\(^ {125}\) Grave policy concerns warn against the prospect of this development: the wide use of such agreements or technological measures would limit the functionality of the Internet and increase the transaction costs of locating information online, drastically altering the present landscape of the Internet and threatening the open culture intended by its first users.\(^ {126}\) The future of linking law remains unclear as some commentators remain skeptical that default rules are possible aside from the technological and contract law solutions already in practice.\(^ {127}\) Some subscribe to the view that the ambit of property rights is open-ended and may operate without being formally recognized in law.\(^ {128}\) Another possible develop-


\(^{121}\) Garrote, supra note 12, at 10.

\(^{122}\) O'Rourke, supra note 22, at 644.

\(^{123}\) Id.

\(^{124}\) Id. at 645.

\(^{125}\) See, e.g., id.


\(^{127}\) See, e.g., Garrote, supra note 12, at 10-12.

\(^{128}\) Garrote, supra note 12, at 34.
ment would be what one author calls the "zoning phenomenon," predicting that the Internet will evolve into open and closed areas, which will distinguish commercial and non-commercial sites or different pricing mechanisms from one another.\textsuperscript{129}

C. A Default Rule

The positivist need to define the present law and the unforeseen application of the Directive in this unresolved area of E.U. law necessitate the formulation of a default rule indicating whether linking should be permitted or not in the absence of terms of use, web linking agreements, or any other explicit prohibition expressed by the copyright owner. Because liability for linking involves a new application or expansion of existing law, the design of any liability scheme requires a close look at its effect on the core values of copyright. Commentators have pointed out that liability does not comport with the philosophy underlying the U.S. copyright system—the inducement of creative expression for the benefit of the public with a deliberate acceptance of leakage.\textsuperscript{130} Others have argued that the digital age has seen an unwarranted expansion of content industries’ rights and that this trend should be resisted.\textsuperscript{131}

In short, courts must evaluate whether enjoining a link is necessary to preserve copyright incentives. Even if a link might threaten incentives, liability is inappropriate if enjoining the link would cause even greater harm to the public than the potential harm enjoined. Even though the threshold for protection is lower in the Directive than in U.S. copyright law—it is specifically intended to protect sweat-of-the-brow investment rather than the higher threshold of creative expression—there does not seem to be any reason for a more stringent infringement analysis in one than the other.

Although the case law has not yet settled on clear definitions for “re-utilization” and “extraction,” the public interest in free expression would suggest that such rights should not be read more narrowly than “copy” has been. It is generally accepted that when creating a link, the linker does not

\textsuperscript{129} Id.

\textsuperscript{130} The copyright scheme of the United States deliberately “contemplates some ‘leakage’ to the public of the expression induced by the grant. Such a system works fairly well as an economic framework that seeks to preserve financial incentives for creators of expression. Copyright’s incentive system, after all, does not require airtight protection; it merely requires enough protection to ensure recovery of the total costs of creation.” Dogan, supra note 15, at 885.

\textsuperscript{131} Mark A. Lemley, \textit{Dealing with Overlapping Copyrights on the Internet}, 22 U. DAYTON L. REV. 547, 548-49 (1997) (arguing that the rights of copyright holders have expanded dramatically during the Internet age).
reproduce the linked document and does not communicate the work to the public;\textsuperscript{132} the linking site merely provides a URL that directs the user to the content before the user's computer copies the content. From a policy perspective, linking should not be considered copying and, in any case, the role of the search engine is contributory at most.\textsuperscript{133}

Even if the definition of "extraction" or "re-utilization" is narrower than "copying," it is unlikely that linking would fall within its ambit since a link is nothing more than a reference. The distinction between hyperlinking to content and posting content directly is important.\textsuperscript{134} The information downloaded generally does not come from the originating site of the hyperlink but rather from another server location on the Internet.

However, if linking is ultimately found to be an infringement of one of the database creator's exclusive rights, the user's act of linking should be protected by an implied license, even in the case of interior pages. The copyright laws should be interpreted online so as to place burdens on intellectual property owners to "opt out" of the system by deploying technological controls. Site owners should be charged with the knowledge that the user's computer does not functionally distinguish between the URL of a homepage and the URL of a computer and that users add "bookmarks" to their web browsers to mark pages that they access regularly so as to travel directly to the marked page whether or not it is a homepage.

D. Implications for search engines

Many commentators speculate about the fate of the recently inaugurated Google news service, which bears a striking similarity to that of the ill-fated Newsbooster service.\textsuperscript{135} They contend that the search engine and its peers can "deliver updated and precise search results to users only by continuously searching and indexing the different Web sites (or 'databases,' in the parlance of the EU directive)," activity that might invite claims for repeated and systematic extraction of content.\textsuperscript{136}

\begin{itemize}
\item \textsuperscript{132} See Strowel & Ide, supra note 24, at 427.
\item \textsuperscript{133} See Fonovisa, Inc. v. Cherry Auction, Inc., 76 F.3d 259, (9th Cir. 1996).
\item \textsuperscript{135} "Google News" combs through the sites of thousands of newspapers and automatically selects what it considers to be the top stories in a variety of categories. The headlines are updated several times an hour.
Should the case law continue to expand the rights of database creators under the Directive’s very broad definition of “database,” many Internet users predict that search engines will be spied and indexed from other parts of the world. “We are all connected,” writes one Internet user on a discussion forum set up by Newsclub.de to discuss the legal challenge to its site. “They would simply crush a valuable service ‘at home’ which could (and . . . likely would) be replaced soon elsewhere outside of the German jurisdiction . . . . This Handelsblatt litigation, should it prevail, would IMHO [in my humble opinion] serve as another classic example of a Pyrrhic victory.”\textsuperscript{137}

Some scholars maintain that the recent efforts by business interests to capitalize on the uncertainty that persists in the case law interpreting key provisions of the Directive indicate that it is time for statutory reform. One suggestion is to convert it into an unfair competition statute that would require a showing of harm. This would have the effect of prohibiting outright piracy while protecting benign linking. “Courts would only take action if copying would threaten a product’s existence. That kind of protection is what database producers really need.”\textsuperscript{138}

V. CONCLUSION

Discussion of such alternative proposals suggest that there is a need to reassess the effectiveness of the Directive in achieving its stated purpose of harmonizing database protection throughout the E.U. and promoting the growth of the European database industry. Even if the results seen in recent case law on deep linking are predictable under the existing legislation, the policies that have been promoted should reflect a deliberate decision on the part of legislators rather than the unintended effect of ambiguous legislation.

\textsuperscript{137} Professor Hugenholtz surmises in this article that Google might lose a court case under the Directive.

\textsuperscript{138} This poster suggested that a search engine that relocated outside a German jurisdiction might even be more attractive to German netizens, since it would be able to offer headlines from German publications, which by German law could not be offered by a German service.

\textsuperscript{138} Ovredo, supra note 136 (quoting P. Bernt Hugenholtz, professor of information law at the University of Amsterdam).