Throughout the Internet’s brief existence, authors have actively sought ways to protect their copyrighted content, while technological innovators have striven to develop means to access, integrate, and disseminate this content. Although other legal and extralegal measures have been utilized, or appear likely to be utilized, by rights holders in the future to protect their works, copyright law has been at the forefront of the conflict. As technology has thrust complexity upon this area of law, courts have struggled to apply a doctrine developed for the print world to the evolving digital landscape.

This complexity was at the center of Kelly v. Arriba Soft Corp., a recent Ninth Circuit case involving a “visual search engine.” In Kelly, the Ninth Circuit squarely applied copyright’s “fair use” exception—already an elusive and complex piece of the copyright puzzle—to the nascent law of Internet hyperlinking. The court held that a firm’s creation of small “thumbnails” of a photographer’s copyrighted images for use in its visual search engine constituted fair use. The panel also held that the visual search engine’s unauthorized “inline linking and framing” of images residing on the photographer’s websites violated his right of public display.

Part I provides a brief explanation of technical definitions. Part II summarizes the relevant copyright doctrine, specifically the copyright owner’s right to display her work publicly, and the fair use exception. Part III gives a case summary of Kelly. Part IV places Kelly in the context of the larger debate regarding the increasing propertization of intellectual property, focusing on the case’s implications for copyright law on the Internet. Part IV.A points out the problematic misuse of certain technical terms by the court, Part IV.B addresses the concerns that the case may have far-reaching effects on hyperlinking, and Part IV.C casts a critical, yet ultimately approving, eye toward the court’s emphasis on the transformative nature of the allegedly infringing use, examining Kelly’s implications for websites desiring to use thumbnail images, inline linking, framing, and similar technologies. Part IV concludes by examining potential threats to fair use online. Although the Ninth Circuit’s analysis has faced

1. 280 F.3d 934 (9th Cir. 2002).
2. Id. at 948.
3. Id.
mixed reviews from legal commentators, this Note concludes that the decision is fundamentally consistent with both recent jurisprudence and copyright law’s theoretical underpinnings.

I. THE TECHNOLOGIES AT ISSUE

Kelly involves technologies used by most current forms of search engines, implicating technologies specific to “visual search engines,” which allow users to search for image files on the Internet. The court first discusses thumbnail images (“thumbnails”), which are shrunken versions of full-sized images typically used to link to the corresponding full-sized image, and to index and summarize the results of a search. The case also involves software programs commonly known as “robots,” or “bots,” which automatically seek, collect, and summarize information. Understanding these agents’ functionality will aid in understanding the alternative legal theories and extralegal measures that content owners often use to protect their content. Lastly, several visual search engines utilize, or have utilized, some form of inline linking or framing, two methods for linking to content on the Internet. Like “bots,” these hyperlinking methods are subject to technological controls.

A. “Thumbnail” Images

Thumbnails are smaller, lower resolution copies of digital images, usually used to link to the corresponding full-sized image. They allow World Wide Web (“Web”) users to determine whether the users wish to download a larger, higher-resolution copy to their browser, by first viewing the thumbnails. While thumbnails usually link to the corresponding


5. See infra notes 8-12 and accompanying text.

6. According to one of Kelly’s websites, as of May 6, 2002, three of the five major visual search engines—those of Ditto.com, AltaVista, and Lycos—had responded to the Ninth Circuit’s decision by modifying the manner in which their results were displayed. Google and PicSearch, according to Kelly, had not. See Image Search Engines, at http://netcopyrightlaw.com/imagesearch.asp (last visited Feb. 22, 2003).

full-sized image, they function like any other hyperlink, and may link to any kind of content. By definition, the creation of a thumbnail requires that a copy of the full-sized image be made.

B. "Autonomous Agents" or "Bots"

Software programs, commonly known as "robots" or "bots," are used for various automated data collection tasks. One important function of bots, often called "spiders" or "web crawlers" in the search engine context, is to create the indices upon which search engines are built. Bots traverse the Internet, recursively following hyperlink after hyperlink, indexing each webpage in order to create a webpage database. Users may query a search engine to match terms contained in the database so as to retrieve the indexed page. Similarly, bots create databases of images located on the Internet in order to allow users to search for images in visual search engines such as Google's Image Search, Altavista's Image Search, and Ditto Visual Search.

C. Inline Linking and Framing

Inline linking and framing allow Web publishers to associate site content with the content of another party's site, to create a webpage that is a hybrid of both parties' content. Inline links allow a website to display a work residing on another website's server, within the context of its own website, as if the inline linked work resided on its own server. The user is typically unaware that the image has been imported from another website. Similarly, a framing webpage can use framing code to display all or a

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12. The original Arriba Vista search engine has been modified and is now called Ditto Visual Search. Its current incarnation is located at http://www.ditto.com (last visited Feb. 20, 2003).
portion of a remote website within a "frame" on the framing webpage.\textsuperscript{15} The framed site functions no differently than if it were unframed, allowing the user to navigate through links on the framed site, all without terminating the connection to the framing site.\textsuperscript{16}

D. Technological Controls For Website Operators

Website operators may prevent the inline linking or framing of their content through simple programming techniques.\textsuperscript{17} The most basic techniques include frequently changing the address of a website's main or subsidiary pages, or requiring a password or other authentication to access a website's content.\textsuperscript{18} Similarly, programmed commands may be used to prevent websites with specified domains from linking to a site's content. Since both inline linking and framing utilize links to request the target page from its originating server, each is subject to technological controls.

Bots may be countered with similar ease. To prevent access by bots, a website may incorporate a "robot exclusion header," a text file that informs the robot that its presence is unwelcome.\textsuperscript{19} Most bots respond appropriately to these instructions and do not index the site's content.\textsuperscript{20} However, compliance is entirely voluntary and predicated on the bot being programmed to read the header and conform to its instructions.\textsuperscript{21}

Despite the ease with which technological controls can be used to defend against inline linking or framing, technological controls are not a panacea for all websites encountering undesired links. They usually are easily circumvented, and may negatively affect a site's functionality.\textsuperscript{22}

\textsuperscript{17} See Loren, supra note 13, at 91; Quinn, supra note 4, at 47; Aaron Rubin, Comment, Are You Experienced? The Copyright Implications of Website Modification Technology, 89 CAL. L. REV. 817, 842 n.165 (2001); Sableman, supra note 13, at 1341; David Yan, supra note 15, at 812-13.
\textsuperscript{20} See Quilter, supra note 19, at 424 & n.31.
\textsuperscript{21} See id.
\textsuperscript{22} See infra Part IV.D.1.
II. LEGAL BACKGROUND

A. The Right to Display Work Publicly

A copyright owner is granted the exclusive right to "display the work publicly."\footnote{17 U.S.C. § 106(5) (2000).} The Copyright Act defines a display as "any act by which the initial performance or display is transmitted, repeated, or made to recur."\footnote{H.R. REP. No. 94-1476, at 63 (1976), reprinted in 1976 U.S.C.C.A.N. 5659, 5677.} The Act’s definition of the term “publicly” encompasses a transmission of a display of a work to the public “by means of any device or process, whether the members of the public capable of receiving the performance or display receive it in the same place or in separate places and at the same time or at different times.”\footnote{17 U.S.C. § 101.} The House Report regarding the 1976 Copyright Act revision states that “[e]ach and every method by which the images or sounds comprising a performance or display are picked up and conveyed is a ‘transmission,’” and “[t]he definition of ‘transmit’ . . . is broad enough to include all conceivable forms and combinations of wired or wireless communications media.”\footnote{H.R. REP. No. 94-1476, at 64 (1976), reprinted in 1976 U.S.C.C.A.N. 5659, 5678.}

These statutory provisions and associated commentary suggest that a website framing secondary content could infringe the secondary content author’s exclusive right to display her work publicly.\footnote{See Alison Roarty, Link Liability: The Argument For Inline Links and Frames as Infringements of the Copyright Display Right, 68 FORDHAM L. REV. 1011, 1048 (1999).} Although a framing site does not store or transmit copies of its target pages, the instructions contained in its frameset documents directly cause the secondary content to be displayed within a frame.\footnote{See Brian D. Wassom, Copyright Implications of “Unconventional Linking” on the World Wide Web: Framing, Deep Linking and Inlining, 49 CASE W. RES. L. REV. 181, 208 (1998).} Similarly, “inline links” directly cause the secondary content to be displayed on the webpage containing the inline link. Thus, a website framing or inline linking to copyrighted material may arguably be “displaying” them for purposes of copyright liability.

B. The Fair Use Exception

Congress codified the judicially-created fair use exception to “permit[] courts to avoid rigid application of the copyright statute when, on occa-
sion, it would stifle the very creativity which that law is designed to foster.”

Section 107 of the Copyright Act specifies certain uses of copyrighted material that normally fall within the bounds of fair use: criticism, comment, news reporting, teaching, scholarship, and research. However, these and all other fair use defenses are examined under the four-factor fair use test codified in 17 U.S.C. § 107.

Intended to be illustrative rather than exhaustive, the statutory factors should be balanced in light of the objectives of copyright law, rather than in terms of definitive or determinative tests. Congress left courts to develop particular applications of the factors, as they had done at common law.

III. CASE SUMMARY

A. FACTUAL BACKGROUND

Plaintiff Leslie Kelly, a professional photographer, displayed several of his copyrighted photographs on his websites. He also licensed some

   In determining whether the use made of a work in any particular case is a fair use the factors to be considered shall include—
   (1) the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes;
   (2) the nature of the copyrighted work;
   (3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and
   (4) the effect of the use upon the potential market for or value of the copyrighted work.
32. See ROBERT Merges ET AL., INTELLECTUAL PROPERTY IN THE NEW TECHNOLOGICAL AGE 490 (2d ed. 2000) (citing H.R. REP. NO. 94-1476, at 66 (1976, and stating that the factors to be considered—along with § 107’s illustrative list of fair uses—were “‘the result of a process accretion’ during the judicial development of the fair use doctrine at common law,” and that “section 107 was designed to ‘offer some guidance’ in determining fair use” rather than “to formulate ‘exact rules’”); see also Ruth Okediji, Givers, Takers, and Other Kinds of Users: A Fair Use Doctrine For Cyberspace, 53 FLA. L. REV. 107, 123 (2001) (citing H.R. REP. NO. 94-1476, at 68 (1976), which stated, “There may be instances in which copying which does not fall within the [statute’s] guidelines . . . may nonetheless be permitted under the criteria of fair use.”).
33. Dr. Seuss, 109 F.3d at 1399.
photographs to outside websites. Defendant Arriba Soft Corp.\(^ {34} \) operated a “visual search engine” which displayed the results of a user’s search query as thumbnail images. To create the thumbnails, Arriba first used a “Web crawler” to search for images to index in its search engine.\(^ {35} \) Upon finding a suitable image, the crawler would download a copy of the full-sized image onto Arriba’s server, generate a thumbnail representation of the image, and then delete the full-sized image from the server.\(^ {36} \)

Arriba’s search engine returned these thumbnails as search results.\(^ {37} \) Originally, upon a user’s clicking a thumbnail, Arriba’s search engine produced a page displaying the full-sized image, retrieved directly from the originating website’s server, with text describing the size of the image, a link to the originating website, the Arriba banner, and Arriba advertising.\(^ {38} \) After operating in this manner for several months, Arriba altered its search engine such that the results page contained two links, entitled “Details” and “Source” respectively, next to each thumbnail.\(^ {39} \) The “Details” link led to a page similar to the one produced previously, except it displayed a thumbnail in place of the full-sized image.\(^ {40} \) A user’s clicking of this thumbnail, or the “Source” link, produced two new windows on top of Arriba’s initial results page: a foreground window displaying the full-sized image, again retrieved directly from its originating server, and a second window displaying the full webpage on which the image was originally displayed.\(^ {41} \)

**B. PROCEDURAL HISTORY**

Upon learning that unlicensed copies of his images were included in Arriba’s database, Kelly brought a claim in the U.S. District Court for the Central District of California against Arriba for copyright infringement.\(^ {42} \) In December 1999, the court ruled that although Kelly had established a prima facie case of copyright infringement based on Arriba’s unauthorized reproduction and display of his works, Arriba had established a valid fair

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34. Arriba Soft changed its name to “Ditto.com” after the commencement of the appellate portion of its litigation with Kelly. Kelly v. Arriba Soft Corp., 280 F.3d 934, 938 n.1 (9th Cir. 2002).
35. Id. at 938.
36. Id.
37. Id.
38. Id.
39. Id. at 939.
40. Id.
41. Id.
use defense under § 107 of the Copyright Act. Kelly appealed to the Ninth Circuit.

C. THE NINTH CIRCUIT'S ANALYSIS

In Kelly, the Ninth Circuit's invocation of existing law was straightforward. The court analyzed Arriba's use of thumbnails and its "inline linking and framing" of Kelly's images as separate and distinct actions. With respect to Arriba's creation and use of thumbnails, it was undisputed that Kelly's images were copyrightable and that Arriba had copied them without authorization. Therefore, Arriba's liability for its creation and use of the thumbnails hinged entirely on the success of its fair use defense.

Examining Arriba's "inline linking and framing," the court acknowledged that Arriba's practices did not implicate the reproduction right. The court thus focused on Kelly's right to display the work publicly. Finally, the court analyzed a possible fair use defense with regard to Arriba's inline linking and framing.

1. Thumbnail Reproductions of Kelly's Images

In its evaluation of the thumbnail images, the court focused primarily on the first and fourth statutory fair use factors; namely, the purpose and character of the use, and the effect on the market for the copyrighted work. Analyzing the first factor, the court considered both the commercial nature

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43. Id. at 1121.
44. Kelly v. Arriba Soft Corp., 280 F.3d 934 (9th Cir. 2002).
45. Id. at 939.
46. Id. at 940.
47. Id. at 944 ("[Arriba's practice] does not entail copying [Kelly's images] but, rather, importing them directly from Kelly's web site. Therefore, it cannot be copyright infringement based on the reproduction of copyrighted works . . . .").
48. See id. at 944-47.
49. The Ninth Circuit requested additional briefs in this case on October 10, 2002, chiefly concerning the "derivative use" right. See Kelly v. Arriba Soft Corp., No. 00-55521 (9th Cir. filed Oct. 10, 2002) (order requesting additional briefs). As of this Note's publication, the court had taken no action in response, and it is unclear whether the right to prepare derivative works may ultimately be at issue in the case. The authority regarding applicability of the "derivative use" right to framing is uncertain in the Ninth Circuit. See Futuredontics, Inc. v. Applied Anagramatics, Inc., 1998 U.S. Dist. LEXIS 2265, *10 (C.D. Cal. 1998), aff'd, 152 F.3d 925 (9th Cir. 1998) (refusing both plaintiff's motion for a preliminary injunction and defendant's motion to dismiss, holding that the cases cited by the parties did not conclusively determine whether the defendants' framing Web page constituted a derivative work). Moreover, as discussed infra Part IV.A, Arriba's conduct during the time period at issue does not seem to have involved "framing" at all, despite being so deemed by both the trial judge and the Ninth Circuit panel. Owing to this uncertainty regarding its relevance, the derivative works theory is not considered in this Note.
of Arriba’s use and whether the use “merely superseded the object of the originals or instead added a further purpose or different character.”\textsuperscript{50} It determined that although Arriba’s website served an overtly commercial purpose, Arriba’s use was “more incidental and less exploitative in nature than more traditional types of commercial use” since Arriba was neither selling Kelly’s images nor using them to promote its website directly.\textsuperscript{51} The commercial nature of the use thus only slightly weighed against a finding of fair use.\textsuperscript{52}

The court next determined that since Arriba’s thumbnails served an “entirely different function” than Kelly’s images, they did not supersede Kelly’s use.\textsuperscript{53} Since the thumbnails did “not supersed[e] Kelly’s use but, rather, has created a different purpose for the images, Arriba’s use is transformative.”\textsuperscript{54} After noting the benefit accorded the public by the search engine’s “enhancing information gathering techniques on the internet,”\textsuperscript{55} the court concluded that the first factor weighed in favor of Arriba.\textsuperscript{56}

The second and third factors—the nature of the copyrighted work, and the amount and substantiality of the portion used in relation to the work as a whole—received scant attention from the court. Regarding the nature of the work, the court simply noted that creative works such as Kelly’s “are closer to the core of copyright protection than are more fact-based works,”\textsuperscript{57} but found Kelly’s previous online publication of the work to cut in favor of fair use.\textsuperscript{58} Thus, this factor weighed only slightly in favor of Kelly.\textsuperscript{59} As to the amount and substantiality of the portion used, the court clarified that although copying a work in its entirety militates against fair use, the extent of permissible copying significantly varies according to the purpose and character of the use.\textsuperscript{60} This factor was deemed a nullity, because although Arriba had copied the images in their entirety, doing so was required for the visual search engine’s functionality.\textsuperscript{61}

\begin{itemize}
\item \textsuperscript{50} Id. at 941 (citing Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569, 579 (1994)).
\item \textsuperscript{51} Id. at 940 (citing A & M Records, Inc. v. Napster, Inc., 239 F.3d 1004, 1015 (9th Cir. 2001)).
\item \textsuperscript{52} Id. at 941.
\item \textsuperscript{53} Id. at 941-42.
\item \textsuperscript{54} Id.
\item \textsuperscript{55} Id. at 942.
\item \textsuperscript{56} Id.
\item \textsuperscript{57} Id. at 942-43.
\item \textsuperscript{58} Id. at 943.
\item \textsuperscript{59} Id.
\item \textsuperscript{60} Id.
\item \textsuperscript{61} Id.
\end{itemize}
Addressing the effect on the market for the copyrighted work, the court again focused on the transformative nature of Arriba's use. Noting that "a transformative work is less likely to have an adverse impact on the market of the original than a work that merely supersedes the copyrighted work," the court concluded that as a highly transformative use of Kelly's images, the thumbnails' adverse effect on the market for the images would be minimal.

Having applied the four statutory factors, the court concluded that on balance, Arriba's creation and use of Kelly's images as thumbnails constituted a valid fair use.

2. Arriba's Linking to Kelly's Full-Sized Images

Assessing Arriba's "inline linking and framing," the court acknowledged that Arriba had made no copies, and thus confined its analysis to the public display right. Noting that the Act's legislative history emphasized the "broad nature of the display right," the court determined that the display of Kelly's images on a computer screen constituted a public display. The court then examined two district court cases that found infringement of the display right. Although each of these defendants had copied copyrighted images to its servers to make them available to subscribers, the panel refused to distinguish the cases. Rather, the court emphasized the "active role" the defendants had taken in "creating the display" of the images in each case. It concluded that Arriba likewise had "actively participated in the display of Kelly's images," and thus was directly liable for infringement of Kelly's display right.

62. Id. at 943 (citing Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569, 591 (1994)).
63. See id.
64. Id. at 944.
65. Id.
66. Id. at 945.
67. Id.
68. Playboy Enters., Inc. v. Webbworld, Inc., 991 F. Supp. 543 (N.D. Tex. 1997) (holding a website operator who downloaded copyrighted photographs from Internet newsgroups, discarded the text, and made the images available to subscribers to have violated Playboy's exclusive right to display the photographs); Playboy Enters., Inc. v. Russ Hardenburgh, Inc., 982 F. Supp. 503 (N.D. Ohio 1997) (holding the owner of an electronic bulletin board system to have infringed Playboy's copyrights by displaying copyrighted images on its system).
69. Kelly, 280 F.3d at 946.
70. Id.
71. Id. at 947.
Finally, the court considered whether this infringement might be excused by the fair use exception. The court determined that "the search engine would function the same without [their display]," because the full-sized images did not "act as a means to access other information on the internet [sic]" and "likely [were] the end product themselves." In addition, Arriba had added no new expression or meaning to render its use transformative. As a result, the first fair use factor fell squarely in favor of Kelly. The second factor—the nature of the copyrighted work—was unchanged from the thumbnail analysis and again slightly favored Kelly. As to the third factor—the amount and substantiality of the work used—the court concluded that, although displaying the full-sized images was essential to Arriba's purpose of giving users access to the image without visiting Kelly's website, this purpose itself was illegitimate. Because Arriba's use of the full-sized images was unreasonable in light of the purpose of the display, the third factor favored Kelly. Lastly, the court addressed the fourth factor, the effect of the use on the market for the copyrighted work. Noting the frequent dependence of the fourth factor on the degree of transformation of the allegedly infringing use, the court clearly delineated all the potential markets for Kelly's works. Upon determining that Arriba's inline linking and framing "would result in substantial adverse effects" to each market, the court concluded that the fourth factor weighed heavily in Kelly's favor.

All four statutory fair use factors having weighed in favor of Kelly, the court held that Arriba's inline linking and framing of Kelly's full-sized images did not constitute fair use.

IV. DISCUSSION

A. Descriptive Errors in the Opinion Complicate the Analysis

The Ninth Circuit's opinion is complicated by two significant descriptive errors. The court's first error was not clearly stating which of Arriba's manners of fully displaying Kelly's work was infringing. The court's sec-
ond error was incorrectly characterizing one of Arriba’s full-sized displays of Kelly’s work as having used framing. Both errors greatly increase the difficulty of analyzing the court’s reasoning.

First, although the Ninth Circuit echoed the trial judge’s description of two different iterations of Arriba’s service during the time period under consideration, it failed to distinguish between the two versions when conducting its infringement analysis. The two versions were markedly different, as the first iteration displayed the full-sized, inline-linked image on a page of Arriba’s creation, immediately beneath a banner advertisement; but the second version displays the inline-linked, full-sized image by itself in a new browser window, along with a second new browser window displaying the entire webpage on which the image originally appeared. Since the court does not differentiate between the two, the precise proscription of Kelly is unclear.

Second, although the Ninth Circuit described Arriba’s practices as “inline linking and framing,” Arriba does not appear to have actually framed Kelly’s webpages or copyrighted images during the time period at issue. The first iteration of Arriba’s service is correctly described as employing inline linking because it did “import an image from another website,” yet the second iteration is erroneously described as using “framing.” The second iteration of Arriba’s search engine placed the inline-linked image in a new browser window, not a frame. Thus, while the problematic aspects of Arriba’s conduct might also arise in framing cases, the court’s opinion should not be understood as condemning the framing of copyrighted content.

B. Effects of the Court’s Proscription of Inline Linking of Copyrighted Content

Seizing on the opinion’s lack of technical precision, critics of the decision have asserted that it will have far-reaching limiting effects on the development of the World Wide Web. Some have claimed that the court’s condemnation of “inline linking and framing” may be read to imply that “the mere act of establishing a direct link to a copyrighted work creates

81. See id. at 938-39.
82. Id. at 938; Petition for Panel Rehearing and Rehearing En Banc by Defendant-Appellee Ditto.com, Inc. (Formerly Arriba Soft Corporation) at 20-21, Kelly v. Arriba Soft Corp., 280 F.3d 934 (9th Cir. 2002) (No. 00-55521) (showing screen shots of the two different versions of Arriba’s search engine during the time period at issue).
83. Petition for Panel Rehearing and Rehearing En Banc by Ditto.com, at 20-21, Kelly (No. 00-55521).
84. Id. at 938.
liability for public display unless authorized."85 Others have extended this reasoning to suggest that every online service provider directly linking to copyrighted works would also face liability.86

These arguments should not be taken to suggest that the Ninth Circuit has proscribed all links to copyrighted content. When read in context, the court’s use of the term “direct link” referred to Arriba’s use of inline links to display others’ copyrighted images as a seamless part of Arriba’s website.87 This type of linking, which effectively divorces the image from its original setting and mires the inline-linked image amongst Arriba’s advertisements, is fundamentally different than the technique typically used to link separate pages on the Web. While the Web’s vast potential for communication and dissemination of information depends upon unfettered linking, this is easily distinguished from a search engine’s juxtaposition of the creative works of others with the search engine’s own advertisements.

Critics of the Ninth Circuit’s ruling contend that inline linking should not constitute a violation of the public display right, correctly pointing out that the content’s originating server—not a framing or inline-linking webpage—actually “transmits” inline-linked content.88 A server hosting content on the Internet will transmit a copy of the content in response to any

85. Petition for Panel Rehearing and Rehearing En Banc by Ditto.com, at 20-21, Kelly (No. 00-55521).
86. See Brief of Google Inc. as Amicus Curiae In Support of Petition for Panel Rehearing and Rehearing En Banc by Defendant-Appellee Ditto.Com, Inc. (Formerly Arriba Soft Corporation) at 5, Kelly v. Arriba Soft Corp., 280 F.3d 934 (9th Cir. 2002) (No. 00-55521) (contending that “without clarification, it might be argued that this reasoning would impose liability on every search engine for providing a list of search results that link to third party web pages (and indeed, on every Internet service provider that directly links to copyrighted works)").
87. See Kelly, 280 F.3d at 947 (“Arriba acted as more than a passive conduit of the images by establishing a direct link to the copyrighted images. Therefore, Arriba is liable for publicly displaying Kelly's copyrighted images without his permission.”). This is true for the period with which this lawsuit is concerned, January 1999 until “sometime after August 2000.” Id. at 939. Thereafter, Arriba modified its search engine so as to display the full-sized image alone within one frame, and to frame the entire webpage on which the copyrighted image originally appeared in a frame below. Id. Then, “direct link” as used by the court would refer only to the inline linked image within a frame.
88. See Petition for Panel Rehearing and Rehearing En Banc by Defendant-Appellee Ditto.com, Inc. (Formerly Arriba Soft Corporation) at 8, Kelly v. Arriba Soft Corp., 280 F.3d 934 (9th Cir. 2002) (No. 00-55521); see generally Brief of the Electronic Frontier Foundation as Amicus Curiae In Support of Petition for Panel Rehearing and Rehearing En Banc by Defendant-Appellee Ditto.Com, Inc. (Formerly Arriba Soft Corporation), Kelly v. Arriba Soft Corp., 280 F.3d 934 (9th Cir. 2002) (No. 00-55521).
valid command. Thus, these critics contend, because unprotected content is thereby set forth on the Internet for indiscriminate dissemination, providing a link to this content ought not constitute infringement of the content owner's public display right.

This argument, however, ignores the manner in which copyrighted content is actually used and viewed online. A webpage containing images consists of a webpage written in HTML code that contains HTML requests for image files. Although the webpage and its images are constituent parts of a singular whole which appears seamless to most users, the image files and the webpage are in different file formats and reside separately on a server. In the case of inline linking, they reside on different servers. This is how a search engine such as Arriba's can locate and link to image files separately from the webpage on which they are intended to appear.

It is tempting to conclude that since copyrighted images are thereby placed on a server and may be linked to by any webpage, they are already being “publicly displayed” and cannot have this right infringed by a party inline linking this content. Allowing this, however, would significantly reduce incentives to place copyrighted images online. Rather than acquiring a license for copyrighted images, Web authors could freely code their webpages to inline link to images residing on others' servers. Servers hosting popular images, particularly those of broad or general relevance, would be linked to by several webpages and would have to employ technological controls to prevent such linking. Such restrictions may be undesirable for a great many reasons.

At bottom, the Kelly court recognized that inline linking full-sized images was not necessary to the functioning of Arriba's search engine. Although not made explicit, the court seemed to realize that Arriba—particularly in the earlier incarnation of its service, which juxtaposed inline-linked images with its banner advertisements—was merely seeking to entice users to view full-sized images through its service rather than to venture to the site on which the image was originally intended to appear. This would allow Arriba to not only display their advertisements each time a full-sized image was viewed, but also to keep more users from leaving Arriba's site to visit the sites on which the images appeared.

89. See Wassom, supra note 28, at 188 (describing the process by which a copy of content is “transmitted” in response to a user's request).
90. See infra Part IV.D.1.
91. Kelly v. Arriba Soft Corp., 280 F.2d 934, 937 (9th Cir. 2002).
92. See id.
This common-sense analysis led the *Kelly* court to condemn inline linking and framing that merely "superseded the object" of the original works,93 while lending its cautious approval to transformative uses that benefit the public in some manner.94 Since the Ninth Circuit has requested additional briefs in the case,95 rehearing may well be granted; an amended opinion could correct the court's misstatement of certain technical terms. Even if the language remains the same, however, the court's reasoning is clear when read in proper context. *Kelly* threatens only inline linking as performed by Arriba. Other hyperlinking methods, comprising the vast majority of Internet links, should remain unaffected by the holding.

C. The Ninth Circuit Emphasizes the Integral Nature of the "Transformative Use" Analysis

If *Kelly* is to have a far-reaching impact on fair use, it will likely come about from the Ninth Circuit's embrace—and extension—of the recent trend toward an emphasis on the transformative nature of a secondary use.96 The court's thumbnail analysis in *Kelly* indicates that so long as a use is transformative, factors tending against a fair use claim will likely be ignored. Should the transformative use analysis further come to supersede the remaining concerns reflected in the fair use inquiry, judicial analysis in fair use cases might scarcely resemble the doctrine as originally conceived.

However, such a seemingly radical step may constitute a positive step in Internet hyperlinking jurisprudence. This softening of the fair use test indicates that courts are finally paying proper attention to potential public benefits when balancing issues of incentives and access. Liberal application of the fair use exception may encourage desirable productive uses of content while allowing technological innovators to create new expression through the transformation of existing works. The attainment of the proper result mitigates potential concerns regarding the overemphasis of a single, judicially-crafted factor in the application of a statutory test. *Kelly*'s analysis returns fair use to its rightful place in policing the copyright bargain.

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93. *Id.* at 947.
94. *See infra* notes 115-117 and accompanying text.
95. *See supra* note 32.
I. Kelly’s Thumbnail Analysis Further Nudges the Fair Use Inquiry Toward Analysis of a Single Factor: Transformative Use

The Ninth Circuit’s finding that Arriba’s creation and use of the thumbnails was sufficiently transformative played a decisive role in the outcome as to the first and fourth statutory factors. Guided by the Supreme Court’s recent emphasis on transformative use,97 the Ninth Circuit emphasized that transformative works were less likely to cause harm to the original work’s market.98 The transformative nature of Arriba’s thumbnails was also sufficient to outweigh the firm’s profit motive during the court’s analysis of the first statutory factor.99 This determination affected the court’s analysis of the third factor, the amount and substantiality of the portion used. Here the court, noting that “the extent of permissible copying varies with the purpose and character of the use,”100 refused to condemn Arriba’s copying of the images in their entirety since doing so was essential to Arriba’s novel use for the reproduced images.101

The powerful implications of successfully characterizing an otherwise infringing use as “transformative” are thus clearly demonstrated in Kelly. Kelly’s works were copied in their entirety by a profit-motivated actor. These facts should cut strongly against a defendant insofar as the second and third factors—the nature of the copyrighted work, and the amount and substantiality of the portion used, respectively—are concerned. Moreover, the defendant’s profit motive should factor into the analysis of the first statutory factor, the purpose and character of the use.102 Yet Arriba’s creation and use of the thumbnails was deemed a fair one.103 The transformative use determination either affected or trumped all else in the fair use inquiry.

This collapsing of the fair use inquiry is consistent with copyright law’s goal of encouraging productive uses without detrimentally affecting creative incentives. Concern for creative incentives is reflected in the inquiry into the effect on the market for the copyrighted work, the most im-

97. Equating its standard with that originally provided by Justice Story in Folsom v. Marsh, 9 F. Cas. 342 (C.C.D. Mass. 1841) (No. 4,901), the Campbell Court described the central purpose of the “character and purpose” inquiry as ascertaining “whether and to what extent the new work is transformative.” Campbell, 510 U.S. at 579.
98. Kelly, 280 F.3d at 943.
99. Id. at 941-42.
100. Id. (citing Campbell, 510 U.S. at 586-87).
101. Id. at 943.
102. Campbell, 510 U.S. at 584-85.
103. Id. at 944.
important of the four statutory factors. This factor is closely intertwined with the character and purpose of the use, as the Ninth Circuit made explicit. The character and purpose of the use, in turn, is dominated by the question of transformation.

Otherwise stated, the inquiry into market effects essentially asks whether the infringing use “supersede[s] the use of the original,” an inquiry which dovetails with the question of whether the infringing use was transformative. Arriba’s thumbnails did not supersede the use of the original images, and in fact actually increased traffic to Kelly’s site. They did not decrease Kelly’s incentives to produce creative works and make them accessible. If courts instead were to impose stricter criteria for finding transformative use, thereby decreasing the scope of the fair use exception, markets for legitimate products—such as a visual search engine that functions as a powerful research tool—would likely be foreclosed. Such detrimental effects on expressive diversity and public education are entirely unnecessary, so long as the standard for finding a use transformative remains high enough to preserve incentives for prospective authors.

2. Kelly’s Increased Willingness to Find Uses “Transformative” May Promote Innovation

Kelly indicates that any use of copyrighted content, irrespective of commerciality or the amount used, may be held to constitute fair use if sufficiently transformative. If this holding is followed, the issue of whether a secondary use is “transformative,” and if so, to what extent, will take on paramount importance in fair use cases.


105. See Kelly, 280 F.3d at 948 (“The fourth factor often depends upon how transformative the new use is compared to the original use. . . . Works that are not transformative . . . have the same purpose as the original work and will often have a negative effect on the original work's market.”).

106. See supra Part IV.C.1.

107. See Campbell, 510 U.S. at 579 (quoting Folsom v. Marsh, 9 F. Cas. 342, 345 (C.C.D. Mass.1841) (No. 4,901)).

108. See Kelly, 280 F.3d at 944 (“There would be no way to view, create, or sell a clear, full-sized image without going to Kelly’s web sites.”).

109. See id. It is unlikely that this benefit accorded Kelly’s websites played a determinative role in the market harm analysis, since simply having no effect or slight detrimental effects on Kelly’s website would be entirely consistent with not superseding the websites’ uses.

110. See id. at 941-42.
The central purpose of the transformation inquiry is to ascertain whether the use “supersede[s] the objects” of the original work.111 Embracing that characterization, Judge Leval has explained that a transformative use is “productive and must employ the quoted matter in a different manner or for a different purpose than the original.”112 A productive use, in turn, “should have a broader meaning [than ‘transformative’ use] that connotes a use that furthers the purpose of copyright law.”113

The Ninth Circuit was mindful of these characterizations while deeming Arriba’s thumbnails transformative.114 It analogized the situation before it to Nunez v. International News Corp.,115 in which the First Circuit found that copying a photograph intended to be used in a modeling portfolio and using it instead in a news article was a transformative use.116 As in Nunez, explained the court, Arriba had created a new purpose for Kelly’s images and was not merely superseding Kelly’s purpose.117 However, the Ninth Circuit did not mention that in Nunez, the First Circuit made clear that “by using the photographs in conjunction with editorial commentary,” the defendant had not merely “‘supersede[d] the objects of the original creations,’ but instead used the works for ‘a further purpose,’ giving them a new ‘meaning, or message.’”118 Arriba’s use, in contrast, added no creative purpose, and in no way accorded a novel meaning or message to Kelly’s images themselves.119 Its use resembles neither those given as examples of “transformative” use, nor—upon close inspection—the use deemed fair in Nunez.

Despite these dissimilarities with conventional illustrations of transformative use, Arriba’s use of the thumbnails was transformative by at least one definition, that posited by Judge Leval.120 Arriba’s thumbnails constituted a productive use that employed the quoted material for a different purpose than the original.121 Since Arriba’s use “benefit[ed] the

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111. Folsom, 9 F. Cas. at 348.
112. Leval, supra note 96, at 1111.
113. Loren, supra note 13, at 31.
114. Kelly, 280 F.3d at 941-42 (“Because Arriba’s use is not superseding Kelly’s use but, rather, has created a different purpose for the images, Arriba’s use is transformative.”).
115. 235 F.3d 18 (1st Cir. 2000).
116. See Kelly, 280 F.3d at 942 (citing Nunez, 235 F.3d at 22-23).
117. Id.
118. Nunez, 235 F.3d at 23 (citing Campbell, 510 U.S. at 579) (emphasis added).
119. See Kelly, 380 F.3d at 942 (stating that “thumbnails” are not used for illustrative or artistic purposes).
120. See supra note 114 and accompanying text.
121. See supra note 114 and accompanying text.
public by enhancing information gathering techniques on the internet” and “d[id] not stifle artistic creativity,” the court found it to “promote the goals of the Copyright Act and the fair use exception.” The use was therefore productive. Additionally, since the thumbnails were “not used for illustrative or artistic purposes,” they served a different purpose than the original work.

Taking these definitional matters into account, Kelly effectively indicates that any use with a different purpose than the original will be deemed sufficiently transformative to constitute fair use. This seems the case even when facts normally tending against fair use are present, such as the copying of the original work in its entirety or a manifestly commercial purpose. The opinion also indicates that a secondary use’s potential public benefit will enter into the analysis of the secondary use’s purpose and character. Finding that an advertising-based search engine accorded society a public benefit signals that courts may be willing to find such benefits from many types of technological innovations that incorporate copyrighted content in whole or in part. This seems particularly likely when courts analyze technologies that index, summarize, or otherwise improve access to content.

Kelly’s adherence to the recent jurisprudential trend of favoring transformative uses accords with copyright law’s theoretical underpinnings. Having indicated a willingness to declare a great many uses transformative, Kelly may be at the forefront of an era of latitude afforded to technological innovators to use creative material for transformative uses. So long as these pieces of secondary expression do not unduly diminish incentives for creativity, they should fall within the confines of fair use. Fair use is not merely a loose bundle of exceptions, but an integral part of copyright law’s overall scheme. Since Congress has been accused of responding

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122. _Kelly_, 280 F.3d at 942.
123. See _Loren_, _supra_ note 13, at 31-32 (describing productive use and distinguishing it from transformative use).
124. _Id_.
125. See _Kelly_, 280 F.3d at 942 (stating that Arriba’s use of Kelly’s images served a different function from Kelly’s purposes).
126. _See id_.
127. _See id_. at 943 (finding that Arriba’s copying reasonable even though “Ariba did copy each of Kelly’s images as a whole”).
128. _See id_.
129. _See Leval_, _supra_ note 96, at 1110.
to technological change with excessive protectionism, fair use must assume a broader role in the copyright bargain to counterbalance these encroachments on user rights.

D. Potential Threats to Fair Use

Copyright law is but one means used to protect content in the digital environment. Technological controls often augment, or replace, copyright law on the Internet. Other legal theories, such as contract law, also supplement protection. Ultimately, however, copyright law is preferable to potentially inequitable technological controls as well as other methods that might significantly harm fair use.

1. Technological Controls May Detrimentally Affect Creative Incentives

Kelly likely could have prevented the inline linking and downloading of his images by implementing technological controls. Many commentators have endorsed the use of such controls to protect copyrighted works in digital form. Some have gone further, suggesting that all technological

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133. In addition to contract law, which is discussed infra Part IV.D.2, other legal doctrines relevant here include the resurrected common law doctrine of trespass to chattels, common law misappropriation, and possible statutory database protection. Unlike contract law, and trespass to chattels in limited instances, the remaining two doctrines given here do not typically involve copyrightable information and thus do not implicate fair use. Trespass to chattels has been viably asserted by website operators seeking to prevent bots from collecting data from their sites, although its application to the Internet has been questioned. See Dan L. Burk, The Trouble with Trespass, 4 J. SMALL & EMERGING BUS. L. 27, 54 (2000) (noting the doctrine’s application while contending the doctrine may be pernicious when applied in the Internet context). Common law misappropriation may not be preempted by copyright law, yet appears limited to cases involving the misappropriation of time-sensitive material. See Beal, supra note 18, at 730-31. Database protection, for its part, has been the impetus for several proposed bills in Congress. See John D. Saba, Jr., Internet Property Rights: E-Trespass, 33 ST. MARY’S L.J. 367, 398-400 (2002). Without knowing the contours of any bill which might be enacted, analysis of the implications of database protection statutes on fair use is imprudent. However, these statutes could conceivably cover material within the auspices of copyright, presenting fair use concerns as a result.

134. See, e.g., Loren, supra note 13, at 91-92; Robert L. Tucker, Information Superhighway Robbery: The Tortious Misuse of Links, Frames, Metatags, and Domain Names, 4 VA. J.L. & TECH. 8, ¶ 143 (1999) (“[Technological solutions] are so simple and readily
options be exhausted before resort to litigation. Effective technological means to prevent inline linking and framing are available, and because those seeking to circumvent technological protections would face liability under the anticircumvention provisions of the Digital Millennium Copyright Act (DMCA), such methods are efficacious. They prevent access by the majority of users prophylactically, while the DMCA provides for the punishment of those who defeat them.

Despite technological controls' effectiveness, however, declining to employ them should not diminish a copyright holder's rights. If website operators were required to use technological controls as a substitute for seeking legal redress, malevolent actors would have no reason to refrain from framing, inline linking, or otherwise inappropriately linking to sites lacking effective technological controls. Requiring copyright holders to use technological means to mitigate damages would have a similar effect. Copyright law protects the unseasoned Internet publisher to the same extent as large, commercial websites. While the operators of the latter might reasonably be expected to employ technological controls to prevent undesirable activities—such as the downloading of copyrighted images, inline linking, framing, and other undesired linking—it is unjustifiable to expect the same of the former, who may not have the time, resources, training, or experience to thwart unwanted links. Sites with sufficient resources perceiving problematic linking will implement technological controls without additional motivation. Although making the use of technological controls compulsory may promote judicial economy, this alone cannot justify depriving authors of their rights. Doing so would provide a significant disincentive for the creation and dissemination of creative works.

available that it is difficult to understand why anyone would want to resort to litigation rather than use the quick, certain, and comparatively inexpensive technological fix instead.

135. Tucker, supra note 134, ¶ 145.
136. See Loren, supra note 13, at 91; Tucker, supra note 134, ¶ 143-45.
138. See Tucker, supra note 134, ¶ 145 (arguing that the common law doctrine of avoidable consequences should require website operators to determine whether others have created unauthorized links to their sites and, if so, to take all reasonable, technologically feasible steps to minimize or eliminate the resulting damage).
2. Non-Copyright Legal Theories May Limit Fair Use

While technological controls may have problematic consequences for copyright owners' incentives, some other legal theories currently espoused to protect websites' content, or which lie on the horizon, might significantly limit fair use. Most problematic are "browsewrap" agreements and other contracts by which access to copyrighted works is sold or otherwise limited. Recent appellate case law indicates that these contracts, which purport to bind a user, can be written and applied so as to be enforceable under state contract law.

Restrictive contracts, if widely employed, could severely limit fair use of creative materials located online. A purchaser of a book usually has no contractual relationship with the author, publisher, or bookseller regarding how the buyer may use the book. The buyer's rights to read the book, make notes in it, copy expression or ideas from it, or dispose of it, are all determined by the nature and scope of the copyright owner's exclusive rights in the literary work embodied in the book and the buyer's property rights in the book itself. In contrast, a work existing exclusively in an electronic database might only be obtained via some contractual relationship. Even if a user could locate the resource and willingly pay for it, the database provider may condition access on the user's binding promise to refrain from uses that might be considered fair use under copyright law.

139. Despite the drawbacks mentioned supra Part IV.D.1, technological controls that prevent inline linking, framing, and other similar means for linking to and displaying content do not detrimentally affect fair use. As typically employed, such controls do not prevent access by users, but rather, limit undesired means of accessing or displaying a website's content. For example, a website may employ technology that, upon the website being set in frames, makes the frames disappear. This has no effect on access. Even more restrictive technologies, such as a Web server programmed to reject all inline linking requests to images on that server, do not significantly impact fair use. Although the content will not be disseminated via the undesired method, it may be accessed freely through conventional linking methods. So long as website operators allow their content to be accessed by standard means, fair use will not be implicated.

140. See Robert A. Hillman & Jeffrey J. Rachlinski, Standard Form-Contracting in the Electronic Age, 77 N.Y.U. L. REV. 429, 464 (2002) (describing browsewrap contracts, which are "terms and conditions" that "generally provide that using the website to purchase goods or services offered (or just visiting the site) constitute acceptance of the conditions contained therein").


142. See Netanel, supra note 130, at 385.

143. Id.; see also Quinn, supra note 4, at 71.

144. See Netanel, supra note 130, at 385.
Such limitations on access may have profound consequences for fair use of resources located exclusively online, affecting everyone from children creating a library report to a critic attempting to create a parody for the purpose of social commentary. Since the digital environment contains no analog to the print world’s public library, where copyrighted materials may be dependably found for free, this problem will increase in significance as an increasing number of materials are published primarily or exclusively online.

V. CONCLUSION

With its methodical analysis in *Kelly*, the Ninth Circuit provided relatively clear guidance for search engine operators and others who index, summarize, or link to copyrighted works in the online medium. The court evinced a clear desire to avoid limiting new technologies that make use of preexisting copyrighted material, while simultaneously making clear that the public display right may be extended to condemn linking practices that display copyrighted material without adding further meaning or purpose. This balanced result is in accord with the goals of the copyright grant, equitably balancing the public’s need for information-gathering, indexing, and information location tools with the necessity of maintaining incentives for the creation and dissemination of creative works.

Looking prospectively, the Ninth Circuit has clearly opened its arms to new works and technologies that incorporate preexisting works in a functionally transformative manner, although it is too early to tell whether this trend will carry over to fair use jurisprudence outside of the Internet context. It is clear, however, that copyright law is adaptable to evolving technologies so long as copyright’s justifying principles remain in sight.