

Embedding Content or Interring Copyright: Does the Internet Need the “Server Rule”?

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ABSTRACT

The “server rule” holds that online displays or performances of copyrighted content accomplished through “in-line” or “framing” hyperlinks do not trigger the exclusive rights of public display or performance unless the linker also possesses a copy of the underlying work. As a result, the rule shields a vast array of online activities from claims of direct copyright infringement, effectively exempting those activities from the reach of the Copyright Act. While the server rule has enjoyed relatively consistent adherence since its adoption in 2007, some courts have recently suggested a departure from that precedent, noting the doctrinal and statutory inconsistencies underlying it.

Authors and copyright owners have long lamented that the server rule’s immunization of certain online activities eviscerates their ability to control how their works are disseminated on the Internet. But many Internet users and commercial actors have incorporated the rule’s liability shield into their expectations about how the Internet does (and should) function. Accordingly, while authors and copyright owners foresee improved prospects for remuneration, many commentators and advocacy groups have expressed concerns regarding the recent judicial doubt about the validity of the server rule. They contend that, without the server rule, the Internet would cease to function as it does today.

However, these concerns overlook the applicable defenses—in particular, the defenses of safe harbor under § 512 of the Digital Millennium Copyright Act and express license—which, we expect, would take on a more significant role in a post-server rule world. In this Article, we explore the likely effect of the potential reversal of the server rule, taking into account these defenses. We conclude that the principal difference between copyright law with and without the server rule comes down to the author’s ability to obtain the removal of links to infringing content, and to authorize embedding of content from a source to which the public had lawful access.

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Moreover, while the reversal of the server rule may interrupt a handful of online services that rely entirely on the unauthorized appropriation of copyrighted works, most online practices would likely continue unaltered in the post-server rule world.

TABLE OF CONTENTS

Introduction	419
I. The Server Rule and its Possible Reversal	426
A. The Server Rule	426
B. <i>Leader's Institute v. Jackson</i>	426
C. <i>Goldman v. Breitbart News Network, LLC</i>	427
II. The Impact of the Server Rule and its Possible Reversal	430
A. The Impact of the Server Rule on Creators	430
B. The (Potential) Impact of the Server Rule's Reversal on Common Internet Practices	438
1. Impact on the Media and Online Services	438
2. Embedding and Social Media: A Taxonomy	440
a. Content Sharing via Hyperlink	440
b. Intranetwork Sharing	441
i. By Users	441
ii. Automated Sharing by the Platform	442
c. Off-Platform Sharing	443
3. Impact on Social Media	443
III. The Role of DMCA Safe Harbor	445
A. § 512 Safe Harbor Generally	445
B. § 512 and Embedding Links	448
1. Legislative Backdrop	448
2. Legislative Context	450
C. The Definition of "Service Provider" and Embedding Links	453
D. § 512 and Non-Platform Linkers	456
1. Content Sharing via Hyperlink	457
2. Intranetwork Sharing	459
E. § 512 and Platform Liability	459
1. Hosting User Posts	460
2. Automatic Reposting by Platforms	461
IV. The Role of Licenses	462
A. Express License	463
B. Implied License	468
1. Implied License to Embed	470
2. Problems with Implied License	471
V. Conclusion: What Difference Does it Make to Authors?	474

INTRODUCTION

The Internet proliferates mass dissemination of works of authorship, not always with their creators' consent or compensation. One widespread technique, the "embedding" of content from one webpage into another,¹ allows an online actor—be it an individual blogger, a commercial website, or a market-dominant search engine—to incorporate a work posted online, for example, a photograph, into the user's screen display, without technically copying the image from its source and reproducing it on the new website. While the copying and pasting would implicate the source author's copyright, many U.S. courts have held that achieving the same result by means of in-line hyperlinking engages no rights of the copyright owner.

This sort of technological determinism clashes with the goal of technological neutrality that pervades the 1976 Copyright Act. The 1976 Copyright Act expressly covers media of expression "now known or later developed."² Congress drafted copyright's exclusive rights in broad terms similarly intended to evolve with technological progress,³ and it anticipated that the primacy of the reproduction right might wane with the rising economic significance of the exclusive rights of public performance and display.⁴ Today, direct access to public performances and displays of cloud-stored content has largely displaced accumulation of hard copies or downloads.⁵ But despite Congress's endeavor to ensure that authors' rights keep pace with new modes of exploitation, some courts have proved reluctant to apply fully the rights of public performance and display to the evolving infrastructure of the Internet.⁶ In particular, the "server rule," proclaimed in the Ninth Circuit's 2007

1. This Article will address the implications of the server rule—and its potential reversal—on the practices of "in-line" (or "embedded") linking and "framing," both of which cause the linked-to material to appear on a new website through the use of HTML codes incorporating hyperlinks. *See infra* notes 9–10 (defining those terms). This Article will *not* address the practices of "simple" or "deep" linking, both of which involve the use of hyperlinks to refer users to locations on the Internet without displaying the linked-to content on the linking site. *See infra* note 28.

2. 17 U.S.C. § 102(a) (2012).

3. *Id.* § 101 (defining right of public performance by transmission "by any device or process"); *id.* § 106; H.R. REP. NO. 94-1476, at 64 (1976), *reprinted in* 1976 U.S.C.A.N. 5659 ("The definition of 'transmit'—to communicate a performance or display 'by any device or process whereby images or sounds are received beyond the place from which they are sent'—is broad enough to include all conceivable forms and combinations of . . . communications media, including but by no means limited to radio and television broadcasting as we know them.").

4. 17 U.S.C. § 106(5); H.R. REP. NO. 94-1476, at 63 ("performances and displays are continuing to supplant markets for printed copies"). By the same token, cautious not to "freeze the doctrine in the statute, especially during a period of rapid technological change," Congress set out open-ended criteria for copyright's principal exception, fair use. *See id.* at 66; 17 U.S.C. § 107.

5. *See* Jonathan Bailey, *The Long, Slow Decline of BitTorrent*, PLAGIARISM TODAY (June 1, 2017), <https://perma.cc/Y55G-SCTJ> (noting that pirate streaming services "offer greater convenience and security than BitTorrent," a once prevalent peer-to-peer file-sharing protocol). *See also* Jane C. Ginsburg, *From Having Copies to Experiencing Works: The Development of an Access Right in U.S. Copyright Law*, 50 J. COPYRIGHT SOC'Y U.S.A. 113, 116 (2003).

6. The Internet, however, hardly presents the first occasion on which courts have adopted narrow interpretations of the statutory grant in order to protect emerging modes of exploitation from copyright owners' control. *See generally* Jane C. Ginsburg, *Copyright and Control over New Technologies of Dissemination*, 101 COLUM. L. REV. 1613 (2001).

decision in *Perfect 10 v. Amazon*,⁷ represents an example of an “Internet-only” interpretation of the performance and display rights, designed to limit those rights lest their application curtail technological progress.⁸ The “server rule” holds that exhibition on one website by embedding⁹ or framing¹⁰ copyrighted content residing on another website is not a copyright-triggering act of public performance or display unless that content has also been copied onto the embedding or framing website’s server. As a result, the rule excises from the scope of copyright’s exclusive rights unauthorized online displays of content achieved through framing or embedding hyperlinks. While several courts adopted the server rule between 2007 and 2017, two recent district court decisions have noted the flaws in its logic and its inconsistency with statutory text, and have accordingly declined to follow it.¹¹

Before we evoke the consequences of the retention or the rejection of the server rule to individual users, to platforms and other Internet service providers, and to authors, we believe it may be helpful, through the use of two examples inspired by the facts of the recent decision in *Otto v. Hearst Communications, Inc.*,¹² to summarize the disparate legal treatment of two apparently similar but technically different means of exploiting a photograph on the Internet. In the actual case, Otto, the self-styled “guy with an iPhone” attended a wedding at which President Donald Trump made a surprise appearance.¹³ Otto used his cell phone to photograph the

7. *Perfect 10 v. Amazon*, 508 F.3d 1146, 1159 (9th Cir. 2007).

8. See Jane C. Ginsburg & Luke Ali Budiardjo, *Liability for Hyperlinks to Infringing Content*, 41 COLUM. J.L. & ARTS 153, 181–83 (2018). The Second Circuit’s decision in *WNET, Thirteen v. Aereo, Inc.*, 712 F.3d 676 (2d Cir. 2013), *rev’d*, 573 U.S. 431 (2014), offers another, now discredited, Internet-oversensitive interpretation of exclusive rights—in that instance, the right of public performance.

9. An “in-line” or “embed” link is a hyperlink used as a web design element that causes a piece of content, often an image or a video, stored on a server other than the server that hosts the webpage using the in-line link, to appear on the webpage that utilizes the in-line link. See, e.g., *Perfect 10*, 508 F.3d at 1159; U.S. COPYRIGHT OFFICE, *THE MAKING AVAILABLE RIGHT IN THE UNITED STATES* 48 (2016), <https://perma.cc/3JB9-AZYP> (defining “inline linking” as the technique through which “an image, audio file, or video seems to be part of the webpage being viewed, even though it is actually located on a different server”). This process is also known as “hotlinking.” See Zi Chu & Haining Wang, *An Investigation of Hotlinking and Its Countermeasures*, 34 COMPUTER COMM. 577, 577 (2010), <https://perma.cc/MU4U-7LBY> (“Hotlinking is a web behavior that links web resources on a hosting site into a webpage belonging to another site.”).

10. A “framing” link is a hyperlink used as a web design element that creates a navigable, scrollable window displaying a different webpage, within the “frame” of the webpage in which the framing link is used. See *Perfect 10*, 508 F.3d at 1156 (defining “framing” as “the process by which information from one computer appears to frame and annotate the in-line linked content from another computer”); 1 NEIL SMITH, *INTERNET LAW AND PRACTICE* § 13:3 (2018) (“Framing is a variation of the linking process that allows an Internet Web site to be displayed within a predetermined window or ‘frame’ of a host Internet site.”).

11. See *Goldman v. Breitbart News Network*, LLC 302 F. Supp. 3d 585, 596 (S.D.N.Y. 2018) (expressly declining to follow *Perfect 10* and arguing that the “server test” is not “adequately grounded in the text of the Copyright Act”); *Leader’s Institute, LLC v. Jackson*, Civ. No. 3:14-CV-3572-B, 2017 WL 5629514, *10 (N.D. Tex. Nov. 22, 2017) (expressly declining to follow *Perfect 10* and instead holding that “by framing the defendants’ copyrighted works, the plaintiffs impermissibly displayed the works to the public.”).

12. *Otto v. Hearst Commc’ns*, 345 F. Supp. 3d 412 (S.D.N.Y. 2018).

13. *Id.* at 420.

unexpected guest.¹⁴ He text-messaged the photo to a friend, who, without Otto's permission, posted the photo to Instagram. *Esquire* magazine copied the photo from an Instagram account and incorporated it in its webpage.¹⁵ The court granted summary judgment to Otto on his claim of copyright infringement.¹⁶

Let us change the facts to make this a controversy over link embedding. Suppose Otto's text message to his friend includes the photo along with the message "for your eyes only." The friend nonetheless posts the photo to his Instagram account, and *Esquire.com* then displays the photo through an in-line link to the Instagram page—that is, without reproducing the photo. The source copy, on the Instagram page, is at least *prima facie* infringing, because Otto's friend posted it without permission. Under the server rule, however, *Esquire's* further communication of the photo incurs no direct liability because, while the photo would now appear within *Esquire.com's* article, the incorporation is merely virtual; the bits comprising the digital file of the photo continue to reside on the source website. Without the server rule, *Esquire.com's* virtual incorporation of the photo would trigger Otto's exclusive right of public display because the physical location of the bits no longer matters. *Esquire* is undoubtedly showing the image through its webpage, and that is all Otto needs to prove to establish infringement (absent several defenses whose applicability we will later explore).

These outcomes show why the server rule has entrenched defenders and fierce opponents. Over the years when courts generally followed the server rule, technology companies increasingly relied on the rule's shield against direct copyright liability to build and promote widely-successful models of content distribution and social networking. Members of the public have, in turn, increasingly turned to these models to communicate with each other and to entertain themselves and others. No matter how inconsistent the server rule may be with the statutory text and with copyright doctrine as a whole, the rule's prevalence may have fostered business models and user expectations that are perhaps now too ingrained to reverse course. In the current Internet environment, some might urge that the server rule commands continued adherence as an instance of the unwritten copyright rule "if everybody is doing it, it can't be infringement."¹⁷

And indeed, the apparent significance of the server rule to the infrastructure of the Internet is difficult to overstate. By exempting a large portion of online activity—specifically, the practice of "sharing" or redisplaying copyrighted content previously uploaded to and stored on publicly available websites without the permission of the copyright holder—the server rule has facilitated the Internet's development into a social and commercial sphere effectively shielded from portions of the Copyright

14. *Id.*

15. *Id.*

16. *Id.* at 437.

17. See Jane C. Ginsburg, *Authors and Users in Copyright*, 45 J. COPYRIGHT SOC'Y U.S.A. 1, 18 (1997) (noting that the Supreme Court's decision in *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417 (1984), may have been motivated by the Court's reluctance to "hold that millions of Americans are committing copyright infringement every day[:]. In other words, if everybody's doing it, it must be fair use").

Act. Under the server rule, an embed or “in-line” link¹⁸ which draws content from an authorized source—for example, from a photographer’s blog or a news publication which has licensed a photograph for display in connection with an article—and shows that content seamlessly within a new page can *never* form the basis of a direct or secondary infringement claim.¹⁹ And an embed link which draws content from an unauthorized source—for example, from an image uploaded to Twitter without the authorization of the original photographer²⁰—incurs copyright liability only through the doctrine of contributory infringement (which requires the copyright owner to establish that the linker had actual or constructive knowledge that the source of the underlying content was itself infringing).²¹

Accordingly, many of the practices widely followed on the Internet today—including the unauthorized use of embedded social media posts in online news articles,²² the aggregation and redisplay of content from across the web through “social bookmarking” and image search services,²³ and the “sharing” of user-generated content on social media platforms²⁴—have effectively enjoyed total immunity from infringement claims.

While one may celebrate the development of new modes of online communication, content creators and owners emphasize that the server rule’s facilitation of these services through its circumvention of the copyright owner’s

18. See, e.g., *Perfect 10 v. Amazon*, 508 F.3d 1146, 1159 (9th Cir. 2007) (defining an “in-line” or “embed” link as a “hyperlink used as a web design element that causes a piece of content, often an image or a video, stored on a server other than the server that hosts the webpage that uses the in-line link, to appear on the webpage that utilizes the in-line link”).

19. 5 WILLIAM F. PATRY, *PATRY ON COPYRIGHT* § 15:7 (rev. ed. 2018) [hereinafter *PATRY ON COPYRIGHT*] (“[T]here cannot be contributory infringement without direct infringement, and so in the case of a hyperlink to an authorized site, there is no direct infringement.”).

20. See, e.g., *Goldman v. Breitbart News Network, LLC*, 302 F. Supp. 3d 585, 586–87 (S.D.N.Y. 2018) (regarding a claim of copyright infringement against several news sites which embedded a Tweet containing an image uploaded to Twitter without authorization from the content owner).

21. See *Pearson Educ., Inc. v. Ishayev*, 9 F. Supp. 3d 328, 339 (S.D.N.Y. 2014) (“[S]ending hyperlinks that permit others to download protected materials would plainly amount to conduct that encourages or assists in copyright infringement.”); *but see Flava Works, Inc. v. Gunter*, 689 F.3d 754, 757–60 (7th Cir. 2012) (no contributory infringement claim against a video-sharing website because the website “isn’t increasing the amount of infringement”).

22. One recent study found that approximately one in four online news articles included an embedded link to a social media post. See *The State of Social Embeds*, SAMDESK.IO (2016), <https://perma.cc/N6KP-SX8Z>.

23. See, e.g., *Flava Works*, 689 F.3d at 756 (describing a “social bookmarking” online service which “enable[ed] individuals who have similar tastes to point one another (and actually provide one another access) to online materials which cater to those tastes, by bookmarking materials” and describing how the online service “embed[s]” videos from other web locations in a way that “makes [those] videos appear to be on the [service’s own] website”).

24. Internet scholars have described link-sharing mechanisms on social media as a “new infrastructural element” that comprises “the core infrastructure of the social web.” See Anne Helmond, *The Algorithmization of the Hyperlink*, *COMPUTATIONAL CULTURE* (Nov. 16, 2013), <https://perma.cc/VY9E-JRVY> (describing the “role of software in the reconfiguration of the hyperlink throughout the link-sharing environment of Twitter,” and how “link sharing is enabled by (semi-) automated devices such as Tweet and share buttons, scheduling software, cross-posting services and other third-party applications”).

rights of public display and performance has come at the cost of creators' ability to control and benefit from the online exploitation of their works. Under the server rule, the authors' initial making available of their works online effects a kind of digital exhaustion of public display rights, in contrast to courts' refusal to recognize an equivalent outcome when redissemination of a digital file occurs through copies.²⁵ The server rule thus privileges technological "avoision."²⁶ More importantly, it removes incentives to develop markets and means of micropayment: exploiters need not seek licenses for downstream dissemination through framing and embedding if authors' initial online disclosure renders those acts of successive communication copyright-free.

Nonetheless, given the practices the server rule has enabled, we anticipate that courts will be reluctant to jettison the rule unless they perceive that doing so will fulfill one or both of the following conditions: first, that the rule's repudiation will not significantly interrupt the Internet infrastructure as it exists today or dislodge long-formed expectations of the public, and second, that rejecting the rule will improve the lot of the creators whose works the public (including technology entrepreneurs) currently enjoys for free.

By exploring how the Internet could function in the absence of the server rule, this Article endeavors to meet those conditions. In Part I, we provide a brief overview of the history and doctrinal logic of the server rule and of the recent cases in which courts have declined to follow it. Because repudiation of the server rule would affect only "in-line" or "framing" links—that is, links which implicate the rights of public display or performance—we focus the remainder of this article on those *nonreferential*²⁷ forms of hyperlinks; the reversal of the server rule will have no impact on the copyright liability framework for *referential* links (i.e., simple or deep links),²⁸ as these do not directly perform or display works in the first place. In Part II, we investigate how the server rule and its potential reversal affect the Internet landscape. We first detail the harmful effects of the rule on content owners who make their works available on the Internet, and then examine the potential disruption

25. See e.g., *Capitol Records, LLC v. ReDigi Inc.*, 910 F.3d 649 (2d Cir. 2018).

26. "Avoision" tactics endeavor to change the structure or design of a transaction, in order to change the legal outcome. The term evokes the nebulous ground between lawful avoidance and illegal evasion. See REBECCA GIBLIN, *CODE WARS* 46–73 (2011) (describing how technology companies responded to the Ninth Circuit's *Napster* decision by quickly coding technologies in ways which eliminated that liability-attracting control while facilitating precisely the same end result).

27. A referential link takes the user to the home page of the source site, enabling the user to navigate within the source site to the content she seeks. Nonreferential links like "framing," "embedding," or "in-line" links, in contrast, communicate the linked-to content by visually incorporating it within the linker's website. Because referential links do not incorporate content, but rather redirect users to source sites, they do not directly perform or display specific works. As a result, the server rule has no effect on referential links.

28. A "simple link" is a hyperlink that, when clicked, directs a user's browser to a new webpage. See, e.g., *Pearson Educ., Inc. v. Ishayev*, 963 F. Supp. 2d 239, 250–51 (S.D.N.Y. 2013). A "deep link" is a hyperlink that, when clicked, directs a user's browser to a new webpage that, absent the provision of the deep link, would be accessible only by visiting and navigating through a third party's home page. See, e.g., *Ticketmaster Corp. v. Tickets.com, Inc.*, No. CV 99–7654 HLH(BQRX), 2000 WL 525390, at *6 (C.D. Cal. Mar. 27, 2000).

that the reversal of the server rule could cause to the infrastructure of the Internet as it is used today. In Parts III and IV, we turn to the defenses available to users, platforms, and other businesses. In Part III, we explore how § 512(d) of the DMCA—which provides a safe harbor for “information location tools,” including “hypertext links”—can shield linkers from liability for incorporating content from infringing third-party websites via in-line or framing hyperlinks in the absence of the server rule. We conclude that, should courts embrace the broad application of § 512(d), the reversal of the server rule will have no practical effect on the liability framework for nonreferential links to unauthorized sources.

However, § 512(d) immunizes only links to *unauthorized* content: it affords no relief to a defendant who incorporates copyrighted content onto her site through an embedded link to an *authorized* source.²⁹ While this asymmetry may appear counterintuitive, in practice it generates a workable set of incentives: when deciding whether to incorporate content from a third-party website via an embedding link, an online actor would, absent the server rule, be obliged to contact the source website and request permission (or, alternatively, to look for some indication that the source website has permitted embedding). If the source website grants such permission, but turns out itself to be infringing (i.e., the source website hosts content without the permission of the relevant right holder), the requesting actor receives the protection of § 512(d). If the source website declines to grant such permission, and the requester nonetheless incorporates the content via an embedding link, the requester then faces the possibility of strict liability without the protection of the DMCA safe harbor (if the source website is noninfringing).

That, however, is not the end of § 512’s application to embedded links. § 512(c) immunizes service providers who “stor[e] at the direction of a user . . . material that resides on a system or network controlled or operated by or for the service provider” and respond expeditiously to the copyright owner’s notice to block access to the infringing material.³⁰ Without the server rule, unauthorized embeds from authorized sources become “infringing material,” potentially subjecting those who host the embedded links to liability. Section 512(c), however, provides platforms whose users’ pages embed third-party content without authorization an incentive to remove the infringing embedded links, both to protect their users, and to shield themselves against direct or derivative liability for communicating the infringing embeds. As a result, we conclude that many individual online actors who embed third-party content without permission will, notwithstanding their potential lack of a safe harbor defense, escape liability, because they will shelter under the platforms’ “expeditious” removal of unauthorized embeds in response to takedown requests from right holders.

Moreover, as we show in Part IV, the other key defense—express or implied license—further enables platforms to ensure that their users will not be branded

29. See 17 U.S.C. § 512(d) (“A service provider shall not be liable . . . for infringement of copyright by reason of the provider referring or linking users to an online location *containing infringing material or infringing activity*, by using information location tools, including a directory, index, reference, pointer, or hypertext link . . .”).

30. 17 U.S.C. § 512(c)(1).

infringers. In examining how the defenses of express or implied license may shield embedding linkers from liability, we hypothesize that content-hosting online platforms, which today dominate a vast portion of online activity, may require content creators to agree to Terms of Service which specifically allow other online actors to further communicate uploaded content via hyperlinks, thus providing some downstream users with a dispositive express license defense. In other words, we suggest that online platforms will preempt liability by defining, through contract, which forms of content sharing, whether sharing within the platform's software portal, or sharing off-platform on third-party websites through platform-created embed links,³¹ are permissible. Given the increasing portion of online activity captured by a handful of powerful online platforms,³² we hypothesize that content creators who use those platforms may be forced to surrender their rights of public display and performance (as well as of reproduction and distribution) in order to reach the audiences captured within the "walled gardens" controlled by those platforms.³³ Content owners who are able to make works available on their own independent websites³⁴ can of course authorize users to embed their content, but can also impose various restrictions, including paywalls and noncommercial use limitations. In the absence of an applicable express license, we next consider whether a defendant facing a claim of direct infringement for embedding authorized content may, under certain circumstances, rely on an implied license defense, and we investigate the structure and potential weaknesses of applying implied license doctrine to the embedded linking context.

The principal difference, and one we find salutary, between copyright law with and without the server rule thus comes down to the author's ability to obtain the removal of links to infringing content, and to enforce her efforts to tailor the scope of the authorization she grants third parties to embed content from a source to which the public had lawful access. Enforceable rights, in turn, promote authors' power to bargain for remuneration for downstream public displays and performances. Finally,

31. YouTube, for example, allows any online actor (even those without a YouTube or Google account) to embed certain YouTube videos on non-YouTube-affiliated web pages through a YouTube-provided embed code. See *YouTube Embedded Players and Player Parameters*, YOUTUBE, <https://perma.cc/7MDS-L83C> (last visited Jan. 6, 2019).

32. See Anthony Cuthbertson, *Who Controls The Internet? Facebook and Google Dominance Could Cause the 'Death of the Web'*, NEWSWEEK (Nov. 2, 2017, 9:45 AM), <https://perma.cc/Z98U-92ES> (noting that "[s]ites and services owned and operated by Facebook and Google—such as WhatsApp, YouTube and Instagram—now account for over 70 percent of all internet traffic, compared to a joint market share of around 50 percent in early 2014") (citing Andre Staltz, *The Web Began Dying in 2014, Here's How*, STALTZ.COM (Oct. 30, 2017), <https://perma.cc/DB7N-DS9Q>).

33. We note, however, that this potential deleterious result may be avoided in part if those platforms provide an array of customizable options to their users. For example, YouTube allows content creators to disable the "embed" function when uploading a video, effectively allowing the creator to customize the scope of the content license. See *Restrict Embedding*, YOUTUBE HELP, <https://perma.cc/ZP3H-AKLZ> (last visited Jan. 6, 2019) ("By default, users can add YouTube videos to their websites and apps by embedding them. You can restrict their ability to embed your videos by setting rules for videos that you own . . .").

34. Or on platforms which allow uploading users to customize linking permissions, see, e.g., *id.*

in Part V we detail the difference that abandonment of the server rule may make to authors and copyright owners.

I. THE SERVER RULE AND ITS POSSIBLE REVERSAL

A. THE SERVER RULE

As we have seen, under the server rule, “a defendant who provides a [framing or in-line³⁵] hyperlink . . . cannot incur direct copyright liability unless that defendant also ‘store[s] and serve[s]’ the copyrighted material to which the link points.”³⁶ Instead, under the server rule, “U.S. courts . . . characterize the provision of hyperlinks of any form as the *facilitation* of a user’s access to infringing works, which ‘raises only [secondary] liability issues.’”³⁷ Almost all courts that considered the issue between 2007 and 2017 adopted the reasoning of the server rule.³⁸ Beginning in 2017, however, the tide may have begun to turn.

B. *LEADER’S INSTITUTE V. JACKSON*

In 2017, the District Court for the Northern District of Texas explicitly rejected the server rule in *Leader’s Institute, LLC v. Jackson*.³⁹ In that case, defendants⁴⁰ alleged that plaintiffs appropriated the entirety of defendants’ website by “instruct[ing] the user’s browser to display [defendant’s] website under [plaintiff’s] web address.”⁴¹ Plaintiffs cited *Perfect 10 v. Amazon*, arguing that “framing is not copyright infringement,” and that their website “merely directs users to [defendants’] material.”⁴² The court disagreed; applying the statutory definition of public display, the court concluded that because plaintiffs “displayed the works by ‘show[ing] a copy’ of the works via a ‘process’” of “instructing . . . users’ web browsers to display [defendant’s] copyrighted works when those users visited one of [plaintiff’s] domain names,” the plaintiffs “impermissibly displayed the works to the public.”⁴³

The *Jackson* court rejected the plaintiffs’ server rule defense on two separate grounds. First, the court distinguished *Perfect 10* by highlighting what it saw as a

35. See *supra* notes 9–10 (defining “in-line” or “embedded” links and “framing,” respectively).

36. Ginsburg & Budiardjo, *supra* note 8, at 178.

37. *Id.* at 179–80 (quoting *Perfect 10 v. Amazon*, 508 F.3d 1146, 1161 (9th Cir. 2007)).

38. Only one decision issued between 2007 and 2017 departed from the server rule. See *Live Nation Motor Sports, Inc. v. Davis*, No. 3:06-CV-276-L, 2007 WL 79311, at *4 (N.D. Tex. Jan. 9, 2007) (holding that a defendant may have infringed the plaintiff’s copyright by framing media available on the plaintiff’s website). One leading copyright scholar reacted to *Live Nation* by arguing that the court had “completely missed [the] point” and was “apparently clueless about the technology involved.” 5 PATRY ON COPYRIGHT § 15:7 n.1.10.

39. *Leader’s Inst., LLC v. Jackson*, No. 3:14-CV-3572-B, 2017 WL 5629514 (N.D. Tex. Nov. 22, 2017).

40. In *Jackson*, the copyright infringement claims were counterclaims brought by the defendant. See *id.* at *3.

41. *Id.* at *10.

42. *Id.* at *10–11.

43. *Id.* (citing 17 U.S.C. § 101).

key difference between (i) websites which display infringing content through embed links only after a user chooses to navigate to that content by clicking on an item on the allegedly infringing page (like the Google Image Search service at issue in *Perfect 10*), and (ii) websites which automatically display infringing content through embed links (like the plaintiffs' allegedly infringing website in *Jackson*).⁴⁴ Second, the *Jackson* court specifically rejected the argument that an act of public display requires the possession of a copy of the infringed work, noting that "to the extent *Perfect 10* makes actual possession of a copy a necessary condition to violating a copyright owner's exclusive right to display her copyrighted works, the Court respectfully disagrees"⁴⁵ The court explained:

The text of the Copyright Act does not make actual possession of a copy of a work a prerequisite for infringement. To display a work, someone need only show a copy of the work; a person need not actually possess a copy to display a work. 17 U.S.C. § 101. . . . For example, a person that went into a movie theater and used a video camera connected to the internet to broadcast a movie to the public would clearly be committing copyright infringement even though the person did not herself have a copy of the movie.⁴⁶

Of course, the *Jackson* court's second ground for rejecting the plaintiffs' server-rule defense may entirely subsume the first. If, as the court held, possession of a copy was not a "prerequisite for infringement," then any act of "displaying" copyrighted content through an embed link—whether that display was accomplished through a "frame" like the technique used by Google Image Search, or through an embedded link—would necessarily constitute an act of public display.⁴⁷

C. *GOLDMAN V. BREITBART NEWS NETWORK, LLC*

Shortly after the Northern District of Texas's decision in *Jackson*, the Southern District of New York issued a decision in *Goldman v. Breitbart News Network, LLC*, which also explicitly rejected the logic of the server rule.⁴⁸ In that case, the plaintiff owned the copyright in a photograph which he posted to Snapchat.⁴⁹ The photo "then went 'viral,' traveling through several levels of social media platforms," and was ultimately re-uploaded to Twitter by several Twitter users without authorization from the plaintiff.⁵⁰ Defendants, a group of "online news outlets and blogs," "embedded" the unauthorized Twitter posts in news articles, thus "prominently featur[ing]"

44. *Id.* at *11.

45. *Id.* See also Ginsburg & Budiardjo, *supra* note 8, at 181–82 (explaining the inconsistency of the server rule's "possession of a copy" requirement with the structure of the Copyright Act and other case law).

46. *Jackson*, 2017 WL 5629514, at *11.

47. See Ginsburg & Budiardjo, *supra* note 8, at 188 n.149 ("[E]ven though Google Image Search users must click on a 'thumbnail' image before Google displays a framed image from the source website, Google still presents the framed image to the user within the context of its own website.").

48. *Goldman v. Breitbart News Network, LLC*, 302 F. Supp. 3d 585 (S.D.N.Y. 2018).

49. *Id.* at 586.

50. *Id.* at 587.

plaintiff's copyrighted photograph, and plaintiff sued for direct copyright infringement of the right of public display.⁵¹

The server rule would have provided a complete defense to the claim of direct infringement. Echoing the arguments of the Northern District of Texas in *Jackson*, the *Goldman* court rejected the server rule, holding that "nothing in either the text or purpose of the Copyright Act suggest[s] that physical possession of an image is a necessary element to its display,"⁵² and distinguishing *Perfect 10* by noting that Google Image Search users displayed the allegedly infringing images only "after [the user] click[ed] on one of the thumbnails."⁵³ The court also noted that the Supreme Court's decision in *American Broadcasting Companies, Inc. v. Aereo, Inc.*⁵⁴ "strongly support[s] [the] argument that liability should not hinge on invisible, technical processes imperceptible to the viewer," and thus conflicted with the premise of the server rule (that is, that the server location of an image, and not the user's perception of the context of that image, should determine direct infringement liability).⁵⁵

The *Goldman* court also dismissed the warnings urged by defendants that a rejection of the server rule would "cause a tremendous chilling effect on the core functionality of the web" and would "radically change linking practices, and thereby transform the internet as we know it."⁵⁶ The court explained:

The Court does not view the results of its decision as having such dire consequences. Certainly, given a number as of yet unresolved strong defenses to liability separate from this issue, numerous viable claims should not follow. In this case, there are genuine questions about whether plaintiff effectively released his image into the public domain when he posted it to his Snapchat account. Indeed, in many cases there are likely to be factual questions as to licensing and authorization. There is also a very serious and

51. *Id.*

52. *Id.* at 594.

53. *Id.* at 596 ("[T]he role of the user was paramount in the *Perfect 10* case—the district court found that users who view the full-size images 'after clicking on one of the thumbnails' are 'engaged in a direct connection with third-party websites, which are themselves responsible for transferring content.'" (citing *Perfect 10 v. Google, Inc.*, 416 F. Supp. 2d 828, 843 (C.D. Cal. 2006))).

54. *American Broad. Cos., Inc. v. Aereo, Inc.*, 573 U.S. 431 (2014).

55. *Goldman*, 302 F. Supp. 3d at 594–95. For further discussion of the conflict between the server rule and the Supreme Court's decision in *Aereo*, see Ginsburg & Budiardjo, *supra* note 8, at 186–87. The *Goldman* court also suggested that the holding of *Perfect 10* may be limited to the context of search engines. See *Goldman*, 302 F. Supp. 3d at 595–96 (noting that *Perfect 10* "was heavily informed by . . . the fact that the defendant operated a search engine," and suggesting that the "nature of Google Search Engine" was critical to the Ninth Circuit's analysis of the scope of the display right). In so doing, the *Goldman* court unfortunately confused two separate parts of the Ninth Circuit's opinion: one examining the scope of the display right, to which the search engine context is irrelevant, and another examining the application of a fair use defense to a different set of infringement claims at issue. See Ginsburg & Budiardjo, *supra* note 8, at 188 n.149 ("[W]hile the purpose and character of a search engine's use of copyrighted images may be relevant to the fair use question, nothing in the language of the Copyright Act suggests that such a consideration should be relevant to the interpretation of the definitions of 'public display' or 'to transmit' for the purposes of direct infringement analysis.") (citations omitted).

56. *Goldman*, 302 F. Supp. 3d at 596.

strong fair use defense, a defense under the Digital Millennium Copyright Act, and limitations on damages from innocent infringement.⁵⁷

The *Goldman* court issued its decision on limited grounds, without considering the aforementioned defenses.⁵⁸ Commentators—most notably the Electronic Frontier Foundation, which submitted an amicus brief in support of the defendants⁵⁹—quickly denounced *Goldman*'s rejection of the server rule, fulminating that the “legally and technically misguided decision” would “threaten online journalists of all stripes, not to mention millions of ordinary internet users, with infringement liability”⁶⁰ and would “destroy the way we communicate today, including interactions on social media platforms.”⁶¹

The defendants sought to appeal the Southern District of New York's decision, arguing that:

The Court's Order already has had—and will continue to have—a profound impact on all users of the Internet [by subjecting] thousands of online publishers and millions of ordinary Internet users [to] direct copyright infringement liability for conduct that was,

57. *Id.* The *Goldman* court did not clarify its suggestion that, by “post[ing] [an image] to [a] Snapchat account,” the copyright owner may have “effectively released his image into the public domain.” *Id.* “Abandonment” of a copyright to the public domain requires “intent by the copyright proprietor to surrender rights in his work,” which generally requires “an overt act evidencing such an intent.” 4 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 13.06 [hereinafter NIMMER ON COPYRIGHT]. It is unlikely that posting a copyrighted work to a social media platform constitutes an act of abandonment of the entire scope of exclusive rights guaranteed to the copyright owner under 17 U.S.C. § 106. 4 NIMMER ON COPYRIGHT § 13.06 (“The law does not recognize a limited abandonment, such as an abandonment only in a particular medium, or only as regards a given mode of presentation.”). The suggestion that such an act does constitute an effective abandonment is irreconcilable with prior cases in which copyright owners have successfully enforced their rights even though they initially posted their works to social media platforms. *See, e.g.,* Agence France Presse v. Morel, 769 F. Supp. 2d 295, 299 (S.D.N.Y. 2011) (noting that the photographs in question were posted to Twitter by the original photographer). *See also* Thonton v. J Jargon Co., 580 F. Supp. 2d 1261, 1281–82 (M.D. Fla. 2008) (holding that the posting of a copyrighted work on a publicly accessible website did not constitute abandonment of that work to the public domain).

58. *Goldman*, 302 F. Supp. 3d at 585 (denying defendants' motion for partial summary judgment and granting partial summary judgment to the plaintiff).

59. *See* Amicus Brief of the Electronic Frontier Foundation and Public Knowledge in Support of Defendants' Motion for Partial Summary Judgment, *Goldman v. Breitbart News Network, LLC*, 302 F. Supp. 3d 585 (S.D.N.Y. 2018) (No. 1:17-CV-3144-KBF) [hereinafter EFF *Goldman* Amicus Brief].

60. Corynne McSherry, *Copyright and Online Journalism: What's Going on in New York?*, ELEC. FRONTIER FOUND. BLOG (Mar. 28, 2018), <https://perma.cc/QS63-ZW9R> (noting that if the decision in *Goldman* were “adopted by other courts, [it] would threaten online journalists of all stripes, not to mention millions of ordinary internet users, with infringement liability”). *See also* Charles Duan, *Embed With the Devil*, SLATE (Feb. 21, 2018), <https://perma.cc/GCK2-VK4Q> (describing *Goldman* as a “potentially internet-changing decision”); Louis Matsakis, *A Ruling Over Embedded Tweets Could Change Online Publishing*, WIRED (Feb. 16, 2018), <https://perma.cc/8UGT-VWDR> (noting that Judge Forrest's opinion in *Goldman* “threatens [the] ecosystem” of the Internet and could “change the way online publishing functions” by “legally complicat[ing] what has become a commonplace aspect of the internet”).

61. Krista L. Cox, *Does Sharing a Link To Online Content Amount To Copyright Infringement?*, ABOVE THE LAW (Nov. 2, 2017).

until the Order, entirely standard practice that was widely understood to be consistent with established law.⁶²

In July 2018, the Second Circuit denied defendants' request for leave to appeal the interlocutory order.⁶³

II. THE IMPACT OF THE SERVER RULE AND ITS POSSIBLE REVERSAL

Investigation of the normative merits of the server rule requires an examination of how that rule affects, on the one hand, creators and copyright owners who utilize the Internet to distribute and monetize their works, and on the other, the online actors (both commercial actors and ordinary Internet users) who rely on the server rule to shield their activity on the Internet from copyright liability. As we show in Parts III and IV, the relevant defenses—specifically, the statutory safe harbors under the Digital Millennium Copyright Act (“DMCA”) and defenses of express or implied license⁶⁴—will likely fill most of the gap created by the abandonment of the server rule. Nonetheless, before investigating those defenses, we believe it useful to detail the breadth of online activities that repudiation of the server rule could implicate.

A. THE IMPACT OF THE SERVER RULE ON CREATORS

Solicitude for certain current Internet practices fails to acknowledge the troubling effect the server rule has had on creators and copyright owners, particularly photographers, whose works become subject to mass unauthorized and uncompensated exploitation through third-party embedding. By converting the display right into an atrophied appendage of the reproduction right, the server rule ignores Congress's endeavor to ensure that the full “bundle” of exclusive rights will address evolving modes of exploitation of works. The rule also dispenses with inquiries into authorization or fair use; the use's possible incompatibility with the policies of copyright exceptions becomes irrelevant if the use in the first place implicates no exclusive rights. When a defendant, particularly a commercial actor, copies and pastes a photograph to its website, courts have recognized the risk the practice poses to the integrity of the copyright system. As one court observed: “[T]here would be no incentive for publishers to create their own content to illustrate articles: why pay to create or license photographs if all personal images posted on

62. Reply Memorandum in Further Support of Defendants' Motion to Certify Decision for Interlocutory Appeal, *Goldman v. Breitbart News Network, LLC*, 302 F. Supp. 3d 585 (S.D.N.Y. 2018) (No. 1:17-CV-03144-KBF).

63. Denial of Petition for Immediate Appeal, *Goldman v. Breitbart News Network, LLC*, 302 F. Supp. 3d 585 (S.D.N.Y. 2018) (No. 1:17-CV-03144-KBF).

64. Another potential defense is fair use. Because this defense is inherently fact-specific, however, we do not further address its application in this Article, which focuses on the structural defenses to infringement claims.

social media are free grist for use by media companies?”⁶⁵ Those risks do not abate when media companies use the images as “free grist”⁶⁶ by framing and embedding, rather than by copying, them in their sites. Whatever the technological mode of communication chosen, the media company exploits the authors’ work.

Since the Ninth Circuit’s *Perfect 10* decision, creators and content owners have argued that the server rule significantly interferes with their ability to use the Internet to publish their works without effectively losing control over their works’ further dissemination, including by depriving them of the ability to ensure that an appropriate attribution credit accompanies online displays of their works. Creators advance three principal critiques: first, that the server rule has enabled technology companies to build vast audiences by exploiting third-party content, without payment or permission, to attract and retain users to their platforms; second, and relatedly, that these practices divert traffic from the source sites, thus diminishing the creators’ advertising revenues and frustrating creators’ efforts to claim credit for their works; and third, that these practices have spawned user expectations that access to and enjoyment of content made available on the Internet is, or should be, free, thus further depressing creators’ prospects for compensation.

Regarding the first critique, creators charge that the server test encourages online actors—most emphatically, technology companies which offer vastly popular online platforms and services—to “free ride” on copyrighted content by displaying that content to Internet users without the creators’ consent or compensation.⁶⁷ Creators argue that technology companies have extracted billions of dollars from the rapidly expanding market for online advertising and services by exploiting copyrighted works through copyright-exempt public displays, and have ignored the demands of authors who seek a share of the commercial benefit the platforms garner from these practices.⁶⁸

65. *Otto v. Hearst Commc’ns, Inc.*, 345 F. Supp. 3d 412, 482 (S.D.N.Y. 2018) (“It would be antithetical to the purposes of copyright protection to allow media companies to steal personal images and benefit from the fair use defense by simply inserting the photo in an article which only recites factual information-much of which can be gleaned from the photograph itself.”).

66. *Id.*

67. Getty Images, Initial Comments in Response to the U.S. Copyright Office Notice of Inquiry Regarding Copyright Protection for Certain Visual Works, 80 Fed. Reg. 23054 (July 21, 2015) [hereinafter Getty Images, Initial Comments] (“The ‘server’ test . . . works to judicially exhaust a copyright owner’s rights. Once an image is licensed for online use the first time, others relying on the ‘server’ test can simply frame the image already in use instead of licensing it themselves. This [effectively] sanctions free loading . . . [o]nce an image is licensed for online use the first time, others relying on the ‘server’ test can simply frame the image already in use instead of licensing it themselves.”).

68. See Digital Media Licensing Association, Initial Comments in Response to the U.S. Copyright Office Notice of Inquiry Regarding Copyright Protection for Certain Visual Works, 80 Fed. Reg. 23054 (July 23, 2015) [hereinafter DMLA, Initial Comments] (“Using a line or two of simple HTML code, companies can populate entire websites with content they do not own or license and generate substantial ad revenue from posting the content, all without any economic benefit to the content creators or their authorized distributors . . . The website that embeds images receives all the benefit of the display, yet the image owner receives no compensation and has no legal recourse.”). The American Society of Media Photographers has argued that “the display of photographs via techniques known as ‘embedding,’ ‘framing,’ or ‘in-line linking’” deprives copyright owners of the “ability to earn income from works they created” because “ad revenues and other benefits of monetization all accrue to the company using these

Second, creators argue that online actors' freedom to embed content under the server rule routes traffic away from creators' own websites, thus depriving them of the ability to benefit commercially from their works.⁶⁹ Because embeds generally do not show the information which originally accompanies the content on the source site, even a user inclined to investigate the source may not easily find it.⁷⁰ Perhaps even more problematically, the third-party user of the linking website "generally has no idea the content does not actually reside on the linking site," raising further concerns about attribution and the ability of content creators to connect with potential licensees of their works.⁷¹

Many individual websites use in-line links—also referred to as "hotlinks"⁷²—to incorporate images or other media seamlessly into their sites.⁷³ Bloggers, in particular, frequently use unauthorized hotlinks to incorporate third-party content into their sites: by some estimates, roughly seventy percent of blogs use such links.⁷⁴ Some software companies create online tools specifically designed to help website designers search for images and videos and provide embed codes to enable designers to easily incorporate their desired images onto other sites, often providing no way for users to determine whether images are subject to copyright restrictions, or to Creative Commons licenses or other forms of authorization.⁷⁵ Noncommercial actors also frequently engage in hotlinking on online platforms: in the early days of

techniques, with none flowing back to the photographers who created the images in the first place." See American Society of Media Photographers, Initial Comments in Response to the U.S. Copyright Office Notice of Inquiry Regarding Copyright Protection for Certain Visual Works, 80 Fed. Reg. 23054 (Apr. 24, 2015) [hereinafter ASMP, Initial Comments].

69. See Matthew Scherb, *Free Content's Future: Advertising, Technology, and Copyright*, 98 NW. U. L. REV. 1787, 1808 (2004) (suggesting that "linking undermines advertisement-supported content providers' desire to display their content in a way that maximizes the number of advertisements seen and, therefore advertising revenue").

70. See ASMP, Initial Comments, *supra* note 68, at 6 ("The reuse of [copyrighted] images on Pinterest, Facebook, or Twitter without attribution nullifies the major benefit of such platforms to visual artists: exposure to very large potential audiences.").

71. Shannon McGovern, *Aereo, In-line Linking, and a New Approach to Copyright Infringement for Emerging Technologies*, 64 CATH. U. L. REV. 777, 785 (2015).

72. See *supra* note 9 (defining "hotlinking").

73. See Chu & Wang, *supra* note 9, at 578 (surveying "1453 popular websites and check[ing] for images hotlinked in their homepages" and finding that "about 75.0% of sites hotlink images"); *Hotlinking: What Is It, and Why Shouldn't People Do It?*, PROWEBMASTERS, STACKEXCHANGE FORUM (June 30, 2012), <https://perma.cc/YU9R-BHLL> (noting that "[i]t is considered especially rude to hotlink images or other embedded assets without crediting the author (which many people do)"). In 2007, one tech blogger noted that the *New York Times* had "shameless[ly]" hotlinked an image from a third-party site in an article on its website. See Erik J. Heels, *The New York Times Is a Copyjacker*, GIANTPEOPLE BLOG (Sept. 26, 2007), <https://perma.cc/J59Q-JTT2>. Note that the blogger does not address whether the *New York Times* had obtained permission from the linked-to website to "hotlink" the image in question.

74. Chu & Wang, *supra* note 9, at 581 (surveying websites by category, and estimating the number of websites in each category which utilize unauthorized hotlinks).

75. Jonathan Bailey, *Lizzer: A Copyright/Hotlinking Disaster*, PLAGIARISM TODAY (Oct. 8, 2008), <https://perma.cc/8ZH4-ZLU5> (noting that "[t]he worst part" of these services is that "someone using [them] might think that the service is like Photo Dropper or Zemanta [similar services which only include content that had been adequately licensed or was in the public domain] and that they have permission to use everything they see").

social media, MySpace users would find images online and use hotlinking to add those images to their profile pages to “spruce up how their [pages] looked.”⁷⁶ This practice continues today: Facebook users, for example, can post image URLs to their profile pages, which the Facebook algorithm automatically transforms into embedded displays of the underlying content.⁷⁷

Perhaps more problematically, several widely used online services rely almost entirely on unauthorized hotlinking. Photographers have long argued that Google’s Image Search service (the subject of the Ninth Circuit’s decision in *Perfect 10*) eliminates the need to navigate to the source page by displaying high-resolution embedded photographs directly within the Image Search results.⁷⁸ Google Image Search has become an immensely valuable online service which generates over one billion page views a day and indexes over ten billion images.⁷⁹ And it has attained this success at least in part through successive encroachments on source sites. Since the Ninth Circuit’s 2007 decision that upheld Google’s practice of showing full-sized images in its Image Search Results,⁸⁰ Google implemented several redesigns of its Image Search interface, gradually increasing the seamlessness with which the source image appears within the Google interface and decreasing the prominence of the source website and its identifying indicia alongside that display.⁸¹ In 2007, Google’s interface would display full-sized versions of images by displaying the source sites that hosted those images, with a Google Images “frame” across the top section of the user’s screen that included Google’s logo, the thumbnail image from Google’s search results page, and other information provided by Google.⁸² In 2013, however, Google changed its interface for full-sized images, instead displaying them through an “inline panel” which allowed users to “quickly flip through a set of images by using

76. Sean P. Aune, *It’s 2010, Could You Please Stop Hotlinking?*, TECHNOBUFFALO (Oct. 1, 2010), <https://perma.cc/265M-Z3DU>.

77. See *infra* notes 115–118 and accompanying text (noting that Facebook has automated the process of creating embedded content from hyperlinks).

78. Google is not the only search provider who has exploited the server rule to offer products which display works via hyperlink without authorization. See, e.g., Memorandum of Law in Support of Plaintiff’s Motion for Partial Summary Judgment on Liability at 13, *Getty Images (U.S.), Inc. v. Microsoft Corp.*, 61 F. Supp. 3d 301 (S.D.N.Y. Jan. 16, 2015) (No. 1:14-CV-07114-DLC) (arguing that Microsoft’s “Bing Image Widget,” another tool which displays hotlinked images in response to search results, constituted direct copyright infringement and arguing that the Supreme Court’s decision in *Aereo* had indirectly overruled the server rule).

79. MG Siegler, *Google Image Search: Over 10 Billion Images, 1 Billion Pageviews A Day*, TECHCRUNCH (July 10, 2010), <https://perma.cc/G268-BVZ6> (“When Google Images launched in 2001, 250 million images were indexed. By 2005, this was up to a billion images. Now, in 2010, they’re over 10 billion images indexed . . .”).

80. See *Perfect 10, Inc. v. Amazon*, 508 F.3d 1146, 1161 (9th Cir. 2007).

81. Siegler, *supra* note 79 (explaining that, in 2010, Google changed its Image Search interface such that “[c]licking on the [thumbnail image in the search results] takes you to the page that the image resides on, but the image is overlaid very large with the page dimmed in the background” and noting that “[i]t’s all about the image now”); DMLA, Initial Comments, *supra* note 68 (“[I]n the eight years since the Ninth Circuit’s ruling, search engines have vastly increased the size of embedded images and redesigned search result pages such that they have effectively supplanted the websites actually hosting and showing the content.”).

82. *Perfect 10*, 508 F.3d at 1155–56.

the keyboard.”⁸³ As a result, “[t]he source page [of the image] . . . no longer load[ed] up in an iframe in the background of the image detail,” which Google claimed would “speed up the experience for users, reduce[] the load on the source website’s servers, and improve[] the accuracy of webmaster metrics such as pageviews.”⁸⁴

Figure 1: Google Image Search (2007)⁸⁵

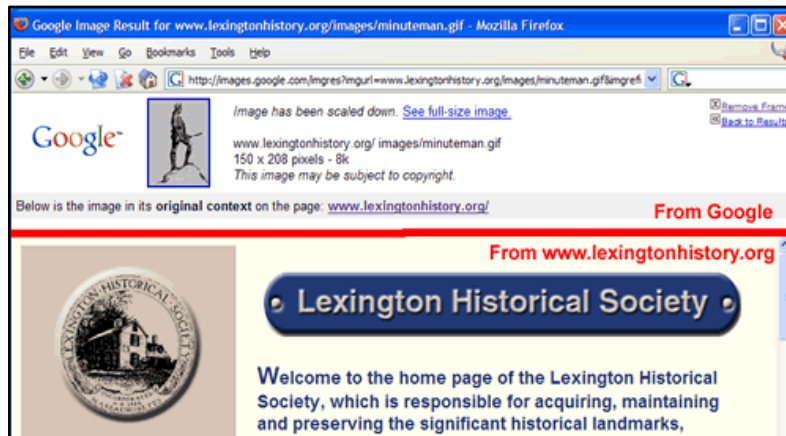
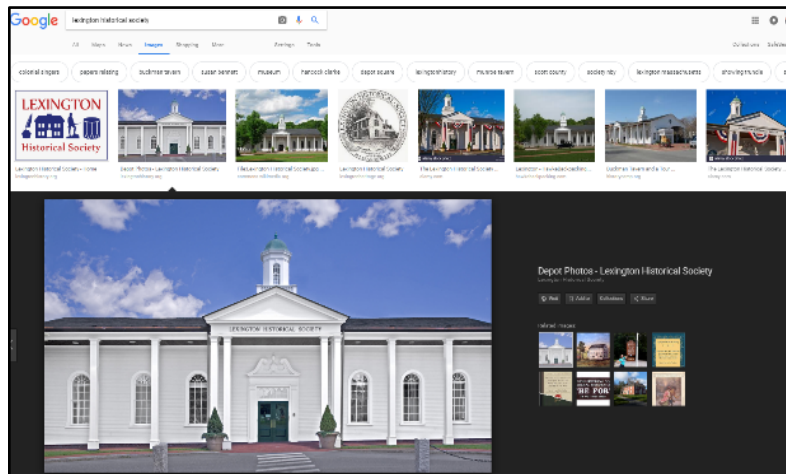


Figure 2: Google Image Search (2018)⁸⁶



83. *A Faster Image Search*, GOOGLE WEBMASTER CENTRAL BLOG (Jan. 23, 2013), <https://perma.cc/25KG-7SH3>.

84. *Id.*

85. Fundamentals of Website Development: Frameset and iframe, Harvard Course Website (2018–19), <https://perma.cc/XW3P-WPAE> (showing an example of the pre-2010 version of Google Image Search).

86. “Lexington Historical Society,” GOOGLE IMAGE SEARCH, <https://perma.cc/S7MQ-MU8N> (last visited Mar. 10, 2019).

Content owners immediately noted that this interface alteration meant that “users no longer need to navigate to the source page now that they can see (and potentially steal) a high res photo directly on Google[’s Image Search page],”⁸⁷ and that, by some measures, the new interface caused an immediate seventy to eighty percent drop in referral traffic from Google’s search results pages to the source pages on which the displayed images reside.⁸⁸ Some commentators described this 2013 update as a “content grab on Google’s part,” a “tactic[] that Google has employed to keep you in their ecosystem instead of visiting the ‘destination’ site.”⁸⁹

The distinction between Google’s pre-2013 Image Search interface and the interface it uses today demonstrates a key distinction between “framing”—that is, the display of a full third-party webpage within the “frame” of another website⁹⁰—and “embedding.”⁹¹ From a copyright owner’s perspective, “embedding” causes even more harm than “framing.” An online service that “frames” content (like Google’s pre-2013 Image Search service) continues to display a source website, so that any content on that website (including the full-sized images responsive to a Google user’s query) appears in the context created by the operator of the source website, including any explanatory text, advertisements, or attribution information.⁹² In contrast, an online service that “in-line” links or “embeds” content (like Google’s post-2013 Image Search service) *removes* content from the source site and places it

87. Lauren Margolis, *How the New Google Images Is Changing Traffic to Your Site*, PHOTOSHELTER BLOG (May 7, 2013), <https://perma.cc/K3WT-AH2Y>. Of course, users have always been able to view low-resolution “thumbnail” images on the results pages of online image search engines. See *Kelly v. Arriba Soft Corp.*, 336 F.3d 811, 815–16 (9th Cir. 2003); *Perfect 10*, 508 F.3d at 1155. However, the lower quality of these “thumbnail” images means that they are less likely to serve as a market substitute for the high-resolution images on the source site. *Perfect 10*, 508 F.3d at 1168.

88. Margolis, *supra* note 87. Another study found that Google Image Search referrer traffic dropped by sixty-three percent, on average, since the 2013 upgrade. See Shahzad Abbas, *How Google’s Image Search Update Killed Image SEO*, DEFINE MEDIA GROUP BLOG (Apr. 15, 2013), <https://perma.cc/A2KV-KEKX>.

89. Margolis, *supra* note 87. This 2013 update prompted Getty Images to file a competition-law complaint with the European Commission, which argued that the update “impacted Getty Images’ image licensing business [and] content creators around the world, by creating captivating galleries of high-resolution, copyrighted content” (without authorization from copyright owners) which display “large format” images, eliminating any “impetus to view the image on the original source site.” *Getty Images to File Competition Law Complaint Against Google*, GETTY IMAGES: COMPANY NEWS (Apr. 26, 2016), <https://perma.cc/L5MG-E33W>. Getty Images also submitted a letter to the Senate Judiciary Committee’s Subcommittee on Antitrust, Competition Policy and Consumer Rights in 2016 complaining about Google’s “drastic[]” 2013 redesign of its Image Search product, and arguing that the “only way” to prevent Google from “keeping [] image viewers and potential licensees captive within Google” is to “make sure search work[s] as search, by ensuring that a click on a low-res thumbnail in Google Images takes the user directly to the source website.” Getty Images, Letter to S. Judiciary Comm., Subcomm. on Antitrust, Competition Policy and Consumer Rights, at 3 (Sept. 26, 2018), <https://perma.cc/Y6XS-JPQ3> [hereinafter Getty Images, Letter to S. Subcomm.].

90. See *supra* note 10 (defining “framing”).

91. See *supra* note 9 (defining “in-line” linking or “embedding”).

92. See Jean G. Vidal Font, *Sharing Media on Social Networks: Infringement by Linking?*, 3 U. P.R. BUS. L.J. 255, 267 (2012) (“Google would ‘frame’ the third party’s website within their own website, so the user would see Google’s frame in the upper part of the browser, with the third party’s website beneath the frame. This could give the user the impression that he was still navigating within Google’s search engine; when in fact, he was not.”).

in a new context, thus excising any text or advertisements which may have accompanied the content on the source site. While the language of the Ninth Circuit's decision which approved Google's pre-2013 version of its Image Search service is broad enough to immunize both "framing" and "in-line" linking from direct liability for infringement of the right of public display,⁹³ the application of the resulting "server rule" to the in-line linking context (and to Google's redesigned Image Search interface) implicates a set of economic harms to the copyright holder which, in 2007, the *Perfect 10* court did not consider. Nevertheless, in the years since *Perfect 10*, that decision has been widely understood to immunize both "framing" and "in-line" linking and, accordingly, to shield Google's post-2013 interface from direct liability.

Third, creators have also argued that "[u]nrestricted access to digital images on new social media platforms without any corresponding reference to licensing fees and mechanisms for compensating rights holders has reinforced a growing public attitude that visual images should be free and that photographers need not be paid for their creative efforts."⁹⁴ In other words, the server rule's exemption of embedded content from the Copyright Act, and the resulting widespread unauthorized displays of embedded content on both commercial Internet services (like Google Images) and social media platforms (like Facebook and Twitter) have conditioned members of the public to assume that the Internet is a place where images can be freely copied, shared, and redistributed. For example, when Google removed its "view image" button from its Image Search service in 2018,⁹⁵ many Internet users protested the move, arguing that the minor interface change made it more difficult to access images.⁹⁶ Many of these demands evince a belief that Internet users should be able to freely "avoid" source websites and instead directly access copyrighted content that has been lifted from its original and intended context and stripped of any affiliation

93. See, e.g., *Perfect 10, Inc. v. Amazon*, 508 F.3d 1146, 1161 (9th Cir. 2007) ("While in-line linking and framing may cause some computer users to believe they are viewing a single Google webpage, the Copyright Act . . . does not protect a copyright holder against acts that cause consumer confusion.").

94. ASMP, Initial Comments, *supra* note 68.

95. As part of a 2017 settlement with Getty Images, Google removed from its Image Search results the "view image" button, which previously allowed users to easily navigate directly to the server location of the underlying image (thus displaying the image alone, without the context of the source site). See Google Search Liaison (@searchliaison), TWITTER (Feb. 15, 2018), <https://perma.cc/2NBB-CF2W>; Jacob Kastrenakes, *Google Removes 'View Image' Button from Search Results To Make Pics Harder To Steal*, VERGE (Feb. 15, 2018), <https://perma.cc/WVF7-X3JD>. Today, Google displays only a "visit" button, which directs users to the source website. However, users can still view, copy, and obtain unique image URLs to full-sized versions of embedded images directly on the Image Search results page. Accordingly, the current interface design continues to dispense users from consulting the source page, thus still significantly decreasing the amount of referral traffic to source websites. See Kastrenakes, *supra* (noting that users can still "right click [and] select 'open image in new tab' or 'view image' (or whatever your browser's equivalent option is), and you'll still open up the full-size picture").

96. Mahita Gajanan, *Google Killed Its Popular 'View Image' Feature, and the Internet Isn't Having It*, TIME (Feb. 17, 2018), <https://perma.cc/G7NM-K2FV>.

with its creator.⁹⁷ As the American Society of Media Photographers laments, “disregard for [photographers’] copyrights has become a marketplace norm.”⁹⁸

While the server rule effectively leaves content owners without a copyright law remedy for unauthorized embedding, content owners may, at least in theory, rely on a variety of other measures to prevent third parties from in-line linking or “hotlinking” to content they publish online.⁹⁹ For example, a content owner can publish her content on a platform that controls embedding, or that allows the content owner to disable embedding on third-party sites. The video platform YouTube, for example, which by default allows third-party websites to “embed” uploaded YouTube videos on their sites, also allows uploading users to disable video embedding.¹⁰⁰ Copyright owners may resort to these and other technological restrictions to limit embedding, but in fact, these means to offset the server rule may

97. See, e.g., Jesse Levesque (@XOIIIO), TWITTER (Feb. 16, 2018). See also Gajanan, *supra* note 96 (quoting Martyn Littlewood (@InTheLittleWood), TWITTER (Feb. 16, 2018), <https://perma.cc/UZC6-FTV8> (“Dear @Google, please give us back View Image on image results. Some websites are littered in ads or other stuff, we’d rather avoid them. Sincerely, everyone.”)).

98. ASMP, Initial Comments, *supra* note 68, at 3.

99. Content owners may, for example, include a “clickwrap” or “browsewrap” contract on their sites, under which visitors agree not to embed the content from that site on third-party websites. For example, the *New York Times*’ Terms of Service specifically states that “[y]ou may not modify, publish, transmit, . . . distribute, perform, display (*including framing and inline linking*), communicate to the public or in any way exploit any of the Content” on its site, including “photographs, images, illustrations, designs, audio clips, [or] video clips.” *Terms of Service* § 2.1–2.2, N.Y. TIMES (Jan. 3, 2019), <https://perma.cc/DUH7-U2SQ> (emphasis added). Content owners may also rely on a variety of technical measures to prevent unauthorized embedding. See, e.g., Chu & Wang, *supra* note 9, at 578 (explaining these techniques and how they can be circumvented); Ross Shannon, *Bandwidth Theft*, HTML SOURCE: HTML TUTORIALS (Aug. 21, 2008), <https://perma.cc/4TR6-KG2V> (noting several technical ways in which third-parties can still frame the user’s images despite the user’s attempts to block in-line linking). Website operators can also prevent images on their pages from appearing in Google’s Image Search results, either by using Google’s “Remove URLs” tool, or by adding a “robots.txt” file to the root of their servers that instructs Google’s search algorithm to ignore the image. See *Prevent Images on Your Page from Appearing in Search Results*, GOOGLE: CONSOLE HELP, <https://perma.cc/49RD-9H52> (last visited Jan. 19, 2018). However, as Getty Images has stressed, “[g]iven Google’s dominant market share and the fact that Google is the main gateway to the internet,” simply opting out of Google’s Image Search algorithm entirely (which would also mean that the images would not appear as thumbnails in search results) is “no solution at all: photographers can either abide by Google’s wishes and accept Google’s presentation of images, or become invisible online.” Getty Images, Letter to S. Subcomm., *supra* note 89, at 3.

100. See *Restrict Embedding*, GOOGLE: YOUTUBE HELP, <https://perma.cc/L34Z-58VE> (last visited Jan. 19, 2019) (noting that “[b]y default, users can add YouTube videos to their websites and apps by embedding them” but that “[the uploading user] can restrict their ability to embed your videos by setting rules for videos that you own,” either blocking embedding on all domains or on certain domains). Getty Images provides an embedding feature which allows non-commercial website operators (including social media users) to embed images from Getty’s library on their websites free of charge. See *Embed*, GETTY IMAGES, <https://perma.cc/MGM2-UCJ5> (last visited Jan. 19, 2019). However, Getty’s mechanism does little to police its purported restriction to “non-commercial” uses; it does not feature any technical restrictions on embedding, and in the absence of the server rule, the “non-commercial” restriction has no legal effect—commercial actors are free to use Getty’s embed links without incurring liability. See Rebecca Tushnet, *All of This Has Happened Before and All of This Will Happen Again: Innovation in Copyright Licensing*, 29 BERKELEY TECH. L.J. 1447, 1454 (2014) (“Getty is using various technological measures to make it difficult to embed images *without* using Getty’s proprietary code.”).

prove illusory. As a practical matter, the major channels of online activity generally decline to allow content owners to control the dissemination of uploaded content through platform mechanisms.

B. THE (POTENTIAL) IMPACT OF THE SERVER RULE'S REVERSAL ON COMMON INTERNET PRACTICES

Absent relevant defenses that will be discussed below, the reversal of the server rule could have a profound impact on the application of the Copyright Act to the infrastructure of the Internet. Under the server rule, the act of embedding copyrighted material by linking to an authorized source cannot, as a matter of law, result either in direct infringement (because the link is not an act of “public display” or “public performance”) or in secondary infringement (because claims of secondary liability must rest on an underlying act that gives rise to direct liability).¹⁰¹ If courts considered linking a copyright-triggering act, falling within the scope of “public performance” and “public display,” the act of embedding copyrighted material by in-line linking an authorized source would give rise to new infringement claims, which, under the server rule, would have failed to survive a motion to dismiss.

1. Impact on the Media and Online Services

The reversal of the server rule, in the absence of the relevant defenses, could in theory alter many forms of online activity. For example, consider Google Image Search. Google's display of thumbnail images in search results would likely remain protected by fair use,¹⁰² but, without the server rule, Google's practice of embedding full-sized versions of the images that appear on its Google Image Search service would infringe these images' public display rights,¹⁰³ unless a court found the practice to be a fair use.¹⁰⁴ To accommodate, Google might simply disable this function, or replace its display of full-sized images with thumbnail images incorporating simple reference links that direct the user to the page on which the image is displayed.¹⁰⁵ Or, if it determined that the images added value in excess of

101. See *A&M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004, 1013 n.2 (9th Cir. 2001) (“Secondary liability for copyright infringement does not exist in the absence of direct infringement by a third party.”).

102. See *Perfect 10 v. Amazon*, 508 F.3d 1146, 1168 (9th Cir. 2007).

103. Note, however, that Judge Forrest suggested in her *Goldman* opinion that Google's display of images on its Image Search service may not constitute copyright infringement notwithstanding her holding that embedding a Tweet may constitute an act of “public display.” See *Goldman v. Breitbart News Network, LLC*, 302 F. Supp. 3d 585, 595–96 (S.D.N.Y. 2018). But see Ginsburg & Budiardjo, *supra* note 8, at 188 n.149 (arguing that this part of Judge Forrest's analysis is misguided).

104. The Ninth Circuit's determination that Google's reproduction of thumbnail versions of images for its Image Search service was fair use relied heavily on the court's determination that Google merely used these images as “pointer[s] directing a user to a source of information,” and that the “thumbnails were not a substitute for full-sized images.” *Perfect 10*, 508 F.3d at 1165, 1168. It is therefore unlikely that a court would hold that Google's display of full-sized images is also protected under the fair use doctrine.

105. Google provides a basic version of its Image Search service that does not in-line link images, but rather provides images in response to a user query in thumbnail form, and directs users to the source

the transaction costs,¹⁰⁶ Google could license the images' use, were it able to locate the right holders.¹⁰⁷

Further, members of the press—which, by some measures, utilize embedded social media posts in one in four online news articles¹⁰⁸—would have to exercise caution before embedding social media posts or videos in online articles. An editor may avoid liability by requesting permission from the original author of the content before embedding it in an article, in the same way that news editors today request permission from social media users before reproducing by copying and pasting viral copyrighted content on news broadcasts.¹⁰⁹ Moreover, the editor may have to investigate whether the post which she seeks to embed is itself infringing: if the original poster of an embedded link was not the copyright holder of content contained in the post, and did not have permission from the copyright holder, then the editor may need to trace the image back to its original source in order to obtain permission, as she would in the offline world (or were she copying rather than embedding the content). If the editor is unable to acquire consent, she may have to rely on the fair use defense—although a court's assessment of the strength of such a defense may be difficult to predict.¹¹⁰

websites when users click on the desired thumbnail. *See, e.g.*, Google Image Search Basic Version, GOOGLE, <https://perma.cc/4M3G-XVTA> (last visited Mar. 19, 2019).

106. *Cf.* *Herbert v. Shanley Co.*, 242 U.S. 591, 595 (1917) (holding that a restaurant's unauthorized "free" performances of musical compositions enhanced the defendant's profits: "if the music did not pay it would be given up").

107. The recently-enacted Directive of the European Parliament and of the Council on copyright and related rights in the Digital Single Market and amending Directives 96/9/EC and 2001/29/EC, PE-CONS 51/19, 2016/0280 (COD) (Apr. 2, 2019) requires "online content-sharing service providers" to "obtain an authorisation from the rightholders . . . , for instance by concluding a licensing agreement, in order to communicate to the public or make available to the public works or other subject matter." *Id.* art. 17(1). The license will "also cover acts carried out by users of the services . . ." *Id.* art. 17(2). The Directive defines an "online content-sharing service provider" as "a provider of an information society service of which the main or one of the main purposes is to store and give the public access to a large amount of copyright-protected works or other protected subject matter uploaded by its users, which it organises and promotes for profit-making purposes." *Id.* art. 2(6). The definition also sets out various exclusions, none of which would apply to search engines such as Google.

108. *See The State of Social Embeds*, SAMDESK.IO (2016), <https://perma.cc/PA3W-FSM7>.

109. *See* Mike Masnick, *The Crazy Permission-Asking Media Scrum That Descends When Photographic News Happens on Twitter*, TECHDIRT (Sept. 14, 2015) (providing examples of requests from television broadcasters to the creator of a video of an aircraft fire that went viral on Twitter, which generally consist of reporters or broadcaster representatives replying to the creator's original tweet asking for permission). Some news organizations already ask Twitter users for permission to "use [their] tweets" before embedding or displaying them. *See, e.g.*, @NYTMetro's Reply to @Rundjc24 Tweet, TWITTER, (Jan. 16, 2019), <https://perma.cc/YQ42-FBDU> ("Hey! This is Derek from the Times. We'd like to use your tweet in a piece we're working on . . .").

110. *Compare* *Nunez v. Caribbean Int'l News Corp.*, 235 F.3d 18 (1st Cir. 2000) (defendant newspaper's use of copyrighted images of a famous model "nearly naked" in an article regarding the images themselves, and the controversy they created over the model's fitness to hold the title of Miss Puerto Rico Universe, was fair use) *with* *Monge v. Maya Magazines*, 688 F.3d 1164 (9th Cir. 2012) (defendant magazine's use of several copyrighted images of plaintiff's secret wedding in an article exposing the wedding and offering the photographs as "proof" was not fair use); *see also* *Ferdman v. CBS Interactive, Inc.*, No. 17 Civ. 1317 (PGG), 2018 WL 4572241 (S.D.N.Y. Sept. 24, 2018) (denying cross-motions for summary judgment after finding that defendant online news publication's use of a copyrighted

2. Embedding and Social Media: A Taxonomy

The reversal of the server rule may also affect the practices of ordinary Internet users who “share” content within a social media network like Facebook or Twitter, and who utilize content aggregation services and message boards like Reddit and Digg to share content from around the web with online communities.¹¹¹ For example, Facebook (a social media platform) and Reddit (a social news platform), encourage users both to post their own content and to “share” content they find on third-party websites by posting links.¹¹² Moreover, these platforms are “built entirely on the value of [] sharing” of platform content: users who share and reshare content redistribute and republish attractive third-party content to larger and larger audiences.¹¹³

Before examining how the server rule interacts with the social media landscape, we present below a basic taxonomy of social media “sharing” practices involving the use of embedded links. For simplicity, we categorize linking practices on social media into three groups: activities that place content onto social media platforms (“content sharing”), activities that disseminate content *within* social media platforms (“intranetwork sharing”), and activities that display or perform content residing on a social media platform *outside* the platform, on third-party sites (“off-platform sharing”).

a. Content Sharing via Hyperlink

Most social media and social news platforms rely entirely on a mixture of user-generated and user-found content.¹¹⁴ Users populate the platforms with media through “content sharing,” which we define as placing new content on a social media or social news platform. Users share content on these platforms either by uploading content directly (that is, generating a new copy of the content to be stored on the platform’s server) or by posting hyperlinks to content that their users find elsewhere

image in an article talking about how the subject of the image, an actor, had posted the image on his Instagram feed may be fair use).

111. Helmond, *supra* note 24, at 3 (describing “social news website[s]” like Digg and Reddit “where users comment and/or vote on submitted stories or links” which are posted to message boards by other users). For example, message boards like Reddit’s “r/videos” board consist entirely of embedded videos from online video sites like YouTube or Vimeo. See r/videos, REDDIT, <https://perma.cc/D3EZ-DR4Z> (last visited Jan. 6, 2019).

112. Font, *supra* note 92, at 271–72 (“When a user shares web content [on Facebook, via a link, that content] is then broadcasted to his friends, who will see a thumbnail version of the [linked-to] content posted on their news feed . . . Facebook does not make a copy of the content, but merely links to it by using an ‘in-line linking’ within a frame; much like Google uses in its image search”).

113. Andrew H. Seiden & Christopher J. Norton, *Have You Been Framed? The Future of Embedding Copyrighted Content on the Internet*, N.Y.S.B.A. ENTMT, ARTS AND SPORTS L.J. 56, 61 (2018), <https://perma.cc/9HKC-V22V> (“Twitter encourages its users to tweet, retweet, and embed content with gusto, and indeed the platform is built entirely on the value of such sharing.”).

114. See Jessica Gutierrez Alm, “Sharing” Copyrights: *The Copyright Implications of User Content in Social Media*, 35 HAMLIN J. PUB. L. & POL’Y 104, 105–06 (2014) (“[A] user’s own creative product is user-generated, but information that a user finds elsewhere on the Internet and reposts or forwards on to others is user-found.”).

on the Internet. To make their platforms' interfaces as content-rich as possible, many platforms automatically convert user-provided URLs into displays of the content located at the linked-to online address.¹¹⁵ Some platforms accomplish this by generating embed codes for the user-provided hyperlink which pull content directly from the linked-to site; others use "crawlers" which automatically cache a copy of the linked-to content on the platform's servers, and then display this cached copy on the user's page.¹¹⁶ Further, some social media and social news platforms use "share" buttons that third-party website operators can include in their webpages and that, when clicked by a platform user, automatically generate a post on the platform containing a hyperlink to the page on which the "share" button appears.¹¹⁷

b. Intranetwork Sharing

i. By Users

Social media platforms, in particular, rely on their users not only to "share" content (that is, to place content on the platform), but to "reshare" content that other users have already placed on the platform, thereby redisplaying that content to other users through a process we refer to as "intranetwork sharing."¹¹⁸ Depending on the

115. For example, when a Facebook user includes a URL in a Facebook post, Facebook's "crawler" will "scrape the HTML at the URL to gather, cache and display info about the content [of the page associated with the URL] like a title, description, and thumbnail image." *The Facebook Crawler*, FACEBOOK FOR DEVELOPERS, <https://perma.cc/QY6E-CPQC> (last visited Jan. 26, 2019). If the URL included in the post is a hyperlink to a particular piece of content (for example, an image), Facebook will automatically convert the user's URL into an embedded version of the underlying image and display that image along with the user's post. If, instead, the URL included in the post points to a website, Facebook will "automatically generate a link preview" by "extract[ing] the header image from the [linked-to webpage] to display with [the] link" in the user's post. Andrew Hutchinson, *Facebook's Removing the Ability to Edit Link Previews—Here Are Your Alternatives*, SOCIAL MEDIA TODAY (July 19, 2017), <https://perma.cc/9DC8-LYGX>. See also EFF Goldman Amicus Brief, *supra* note 59, at 9 ("Twitter, YouTube, and other social media platforms provide users with tools to make embedding as easy as possible. Platforms may benefit from the demand via embedded links for the content they host: directly or indirectly, this demand leads to more traffic and advertising revenue that, in turn, makes it possible for new platforms to emerge.").

116. See *Images in Link Shares*, FACEBOOK FOR DEVELOPERS, <https://perma.cc/T6XH-X6KS> (last visited Jan. 26, 2019). Of course, a social media user whose platform "caches" linked-to content (rather than pulling the content directly from the source site) would be wholly unaffected by the reversal of the server rule, as an act of link-sharing on such a platform would constitute a copyright-triggering act of reproduction (through the creation of the cached copy) and of public display (through the display of that cached copy) with or without the server rule. *But see infra* note 224 (noting that § 512(b) of the DMCA may provide a safe harbor for platforms which cache content at the direction of platform users).

117. See Helmond, *supra* note 24 (noting that "social buttons" enable "automated linking" by allowing users to "submit links . . . through a button on an external website that automatically submits the link to the platform").

118. Note, however, that some social media platforms, like Instagram, do not allow platform users to "share" content posted by other users to the platform. See, e.g., Arielle Pardes, *The Rules of Regramming*, WIRED (Mar. 18, 2018), <https://perma.cc/7G9X-YBXC> ("So you want to re-post an Instagram photo. . . . On Twitter, you'd hit Retweet. On Facebook, you'd press Share. On Instagram, you'd tap . . . nothing, because that option doesn't exist."); *id.* ("Instagram has deliberately resisted adding a 'regram' button."). Instagram's reluctance to create an automated mechanism for users to "share"

platform and the character of the shared post, intranetwork sharing can have one of two potential practical effects. First, intranetwork sharing can generate a new post that explicitly refers back to the shared post, in effect rebroadcasting the initial post. When, for example, a Twitter user “retweets” a preexisting tweet, the sharing user generates a post that both indicates that she has “retweeted” the original post, and reproduces the original post in its entirety (including the original poster’s name and Twitter handle and any accompanying text included in the original post).¹¹⁹

Alternatively, intranetwork sharing can generate a post attributable only to the sharing user, with no mention of the original poster. When, for example, a Facebook user “shares” a piece of content on the platform by posting a hyperlink to a third-party website, and a different user “shares” that post, the platform generates a post attributable only to the sharing user, such that a viewer of the sharing user’s post has no way of knowing the identity of the original user. The generated post refers directly to the source website, rather than referring to the original user’s post.¹²⁰

ii. Automated Sharing by the Platform

Most social media platforms also republish user-generated content and posts by algorithmically promoting content throughout their social media networks.¹²¹ In other words, some platforms automate the process of intranetwork sharing to recirculate content within their networks to new users. Facebook, for example, will often show users content that has been “liked” by friends on the network, regardless of whether the user has “friended” the original poster of the content. Indeed, this may be as essential to the social media environment—and the ability of content to go “viral”—as reshares generated by the users themselves.¹²²

content posted by other users on their own pages has not, however, stopped users from “regramming” other users’ posts by copying uploaded images and re-uploading them. *Id.* (noting that several third-party applications, like “Repost for Instagram,” have automated the process of “regramming”). Of course, the copying and re-posting of uploaded images would constitute a *prima facie* infringement of the reproduction right, with or without the server rule.

119. *Retweet FAQs*, TWITTER HELP CENTER, <https://perma.cc/L53U-9V3S> (last visited Jan. 26, 2019) (“Retweets look like normal Tweets with the author’s name and user name next to it, but are distinguished by the Retweet icon . . . and the name of the person who Retweeted the Tweet.”).

120. In other words, the generated post is functionally equivalent to a post generated by a user who shares a link (and thus generates an embedded display) of the source site on a platform. *See supra* notes 118–120 and accompanying text.

121. *See* Paul Lapedes et al., News Feed: What’s In It For Me? in *PROCEEDINGS OF THE 33RD ANNUAL ACM CONFERENCE ON HUMAN FACTORS IN COMPUTING SYSTEMS*, Apr. 2015, at 163 (noting that the Facebook News Feed “highlights or promoted certain stories that are algorithmically identified to be popular or particularly relevant to the reader”); Will Oremus, *Who Controls Your Facebook Feed*, SLATE (Jan. 3, 2016), <https://perma.cc/GX2J-UZQ9> (explaining how Facebook’s “closely guarded and constantly shifting” news feed algorithm “scans and collects everything posted [to Facebook] in the past week by each of [a user’s] friends, everyone [that user] follow[s], each group [that user] belong[s] to, and every Facebook page [that user] liked, ranks them all[] in what it believes to be the precise order of how likely [that user is] to find each post worthwhile,” and then displays the top-ranked posts in the user’s “news feed”).

122. *See* Alfred Lua, *Decoding the Facebook Algorithm: A Fully Up-to-Date List of the Algorithm Factors and Changes*, BUFFER MARKETING LIBRARY (Nov. 4, 2014), <https://perma.cc/235K-H7DW>

c. Off-Platform Sharing

Many platforms also allow nonplatform websites to “embed” platform content outside the platform environment. Twitter, for example, allows third-party sites to embed publicly available Tweets onto other websites by providing an “Embed Tweet” option alongside each Tweet, which automatically generates the HTML code necessary to display that Tweet on other websites.¹²³ Most other platforms implement similar functions.¹²⁴

3. Impact on Social Media

Should courts abandon the server rule, each of the social media practices outlined above—content sharing, intraplatform sharing, and off-platform sharing—would likely implicate the right of public display or performance.¹²⁵ The server rule effectively immunized each of these practices from direct infringement claims because, while the practices do result in the generation of new online displays of the shared content, they do not generate additional copies of that content.¹²⁶ Without the server rule, however, the “physical location or possession of an image [no longer] determine[s] who may or may not have ‘displayed’ a work within the meaning of the Copyright Act.”¹²⁷ Absent the server rule’s requirement that a public display or performance must entail the possession of a copy by the actor committing the display or performance, the analysis of whether a particular online action constitutes a copyright-implicating display turns solely on (1) whether the defendant has “transmit[ted] . . . [a] display of the work,” (2) “by means of any device or process.”¹²⁸ And for each of the practices outlined above, the user or online actor

(providing detail regarding how the Facebook News Feed algorithm finds and promotes “high-quality content,” noting that the algorithm promotes “[p]osts with lots of Likes, comments, and shares” and “[p]osts that are timely or reference a trending topic”).

123. *How to Embed a Tweet on Your Website or Blog*, TWITTER HELP CENTER, <https://perma.cc/C6PM-N9ZX> (last visited Mar. 3, 2019).

124. *Embedding*, INSTAGRAM DEVELOPER, <https://perma.cc/H7D3-XX24> (last visited Mar. 3, 2019); *Embedded Posts*, FACEBOOK FOR DEVELOPERS, <https://perma.cc/P367-YY24> (last visited Mar. 3, 2019) (“Embedded Posts are a simply way to put public posts—by a Page or a person on Facebook—into the content of your web site or web page. Only public posts from Facebook Pages and profiles can be embedded.”).

125. Of course, it may be unlikely that copyright owners will bring infringement suits against social media users who “share” or further disseminate infringing content which already exists on a social media platform. However, litigants have proved willing to bring other tort-based actions against social media users for “sharing” content. See Ed Klaris & Alexia Bedat, (*Don’t*) *Think Before You Retweet?*, INFORM’S BLOG (Nov. 20, 2018), <https://perma.cc/24M9-NGXX> (noting that courts in “[t]wo countries have . . . found ‘liking’ and ‘tagging’ on Facebook to be sufficient grounds for a defamation claim” and noting other examples of “[l]awsuits for defamation by retweeting (i.e. simply passing on a tweet to your followers without adding more)”).

126. The exception being content sharing on a platform that automatically caches the linked-to content, thereby creating a new copy of that content on the platform’s servers and implicating the exclusive right of reproduction. See *supra* note 116 and accompanying text.

127. *Goldman v. Breitbart News Network, LLC*, 302 F. Supp. 3d 585, 593 (S.D.N.Y. 2018).

128. 17 U.S.C. § 101 (“To ‘transmit’ a performance or display is to communicate it by any device or process whereby images or sounds are received beyond the place from which they are sent.”).

carrying out the act clearly “transmits” a display of the original content by creating a new online location, presenting the content to an online audience. While the sharing user may not have written the HTML code necessary to create a new online display of the original post, her use of the platform’s automated functions—that is, an automated process for creating embedded displays of content, a “share” button, or an off-platform embed code—constitutes the use of a “device or process” through which the content “wends its way to its audience.”¹²⁹ As the Supreme Court has made clear, inquiry into the scope of the public performance (and implicitly, public display) right turns on “the [work] as presented to, and perceptible by” the public.¹³⁰ From the user’s perspective, the act of sharing causes the uploaded content to appear in a new online location, presenting and delivering the image to a new group of users.

Similarly, case law interpreting the scope of the rights of public display and performance would likely foreclose the argument that a social media user who “shares” content through intraplatform sharing is simply acting as a conduit for the initial post’s author to further broadcast her initial message.¹³¹ One might define a “share” or a “retweet” as a *retransmission* of the original user’s post—the sharing user essentially “amplif[ies]” the initial broadcast by pushing the content out to an additional class of social media users.¹³² And the Supreme Court’s decision in *American Broadcasting Companies v. Aereo* clearly indicates that the amplification of a preexisting broadcast constitutes an act of “performance.”¹³³

Therefore, absent an applicable defense, many commonplace social media practices would constitute copyright-triggering acts that could form the basis of a direct infringement claim.¹³⁴ As we show below, however, the defenses provided by

129. *NFL v. Primetime 24 Joint Venture*, 211 F.3d 10, 13 (2d Cir. 2000). *See also* *David v. Showtime/The Movie Channel, Inc.*, 697 F. Supp. 752, 759 (S.D.N.Y. 1988) (“Congress intended the definition of [public performance] to encompass each step in the process by which a protected way wends its way to [the public].”).

130. *See* *N.Y. Times Co. v. Tasini*, 533 U.S. 483, 499 (2001). *See also* *Am. Broad. Cos. v. Aereo, Inc.*, 573 U.S. 431, 445–46 (2014) (noting that “technological differences” which “do [not] significantly alter the viewing experience” presented to content consumers are irrelevant to the scope of the rights of public performance and display).

131. *See supra* notes 118–119 (describing intraplatform sharing); *infra* notes 134–135 and accompanying text.

132. *See Aereo*, 573 U.S. at 438–43 (noting that in copyright cases before the 1976 Act, the Supreme Court had held that “community antenna television (CATV) systems,” which “placed antennas on hills . . . and used coaxial cables to carry the signals received by the antennas to the home television sets of its subscribers” did not violate the exclusive rights of the copyright owners of the rebroadcasted content, and that “one of Congress’ primary purposes in amending the Copyright Act in 1976 was to overturn” these pre-1976 Supreme Court decisions) (citing *Fortnightly Corp. v. United Artists Television, Inc.*, 392 U.S. 390 (1968)).

133. *See id.*

134. At least one copyright owner has claimed that the “retweet[ing]” or “shar[ing]” a photograph posted without authorization to Twitter or Facebook constitutes an act of “direct infringement.” *See* Complaint at 10, *Flaherty v. Big Red, Inc., et al.*, No. 1:15-CV-00566 (W.D. Tex., filed June 30, 2015) (alleging that plaintiff’s copyrighted work was “uploaded, pinned, shared, reproduced, copied, [and] distributed” on Twitter and on Facebook, and that work was subsequently “re-tweeted”, “shared”, etc. by at least one third party resulting in direct infringement by that third party”). The parties in that case ultimately settled before the Court could opine on the merits of this argument. *See* Notice of Voluntary Dismissal, *Flaherty v. Big Red, Inc., et al.*, No. 1:15-CV-00566 (W.D. Tex. filed Aug. 11, 2015).

§ 512 of the DMCA (addressed in Part III) and by the doctrine of express or implied license (addressed in Part IV) would shield many of these social media practices from infringement claims.

III. THE ROLE OF DMCA SAFE HARBOR

As we have noted, we anticipate that courts may be reluctant to reject the server rule without assurances that doing so will not significantly interrupt the Internet infrastructure as it exists today. In this Part, we demonstrate how § 512 of the DMCA may prevent the reversal of the server rule from substantially disrupting online activity. In particular, § 512(d)'s safe harbor for "information location tools" including "hypertext links"—which, since the DMCA's passage, has played a relatively limited role due to the server rule's exemption of embedding links from direct copyright liability—could shield online actors from direct liability for linking to unauthorized sources. Further, § 512(c)'s safe harbor for platforms which enable users to store and share potentially infringing "material" online will provide an incentive for those platforms to cooperate with takedown notices by removing embedded links from their platforms "expeditiously" upon receipt, thus protecting both platform users and the platforms themselves from infringement claims.

A. § 512 SAFE HARBOR GENERALLY

The statutory safe harbors set out in § 512 of the DMCA may provide some relief from infringement by embedded hyperlinks to unauthorized content. In particular, § 512(d) of the DMCA limits liability:

for infringement of copyright by reason of the [service] provider referring or linking users to an online location containing infringing material or infringing activity, by using information location tools, including a directory, index, reference, pointer, or *hypertext link*. . . .¹³⁵

Accordingly, this safe harbor provision could constitute a defense to post-server rule claims of copyright infringement arising from the embedding of third-party content via a hyperlink.¹³⁶ The provision explicitly includes "hypertext links," without distinguishing between reference links, which, when clicked on, take the user to another website's landing page, and embedding links, which bring the targeted content to the user by visually (albeit not technically) incorporating it into the linking site.¹³⁷ However, the plain language of § 512(d) limits its application to claims of infringement "by reason of the provider referring or linking users to an online

135. 17 U.S.C. § 512(d) (emphasis added).

136. See Sam Bayard, *Embedded Video and Copyright Infringement*, DIGITAL MEDIA L. PROJECT (July 10, 2007), <https://perma.cc/MFL3-9FJW> ("The plain language of § 512(d) seems to provide bloggers and website operators who embed infringing video content with a means for avoiding liability.").

137. See *supra* notes 9–10 (defining "in-line" and "framing" links).

location *containing infringing material or infringing activity*.”¹³⁸ Accordingly, a defendant who faces a claim of infringement of the rights of public display and performance by reason of providing an embedded link to *authorized* content—for example, the incorporation of a photograph originally posted to a news website which had obtained permission to display the photograph in connection with a particular article, or the “resharing” of a friend’s photograph posted by the friend on a social media website—could not claim the protection of § 512(d).¹³⁹ As we will see, however, § 512(c) and the express license defense will effectively parry the risk of liability arising out of these unauthorized embeds of content from a lawful source.

Section 512(d) shields a qualifying defendant from monetary or injunctive relief as long as the defendant satisfies certain statutory criteria, including qualifying as a “service provider,”¹⁴⁰ implementing a “repeat infringer” policy,¹⁴¹ and not interfering with “standard technical measures used by copyright owners to identify or protect copyrighted works.”¹⁴² Most importantly, § 512(d) provides that a defendant seeking safe harbor may be disqualified if her opponent establishes that the defendant either (1) had actual or constructive knowledge “that the material or activity is infringing,”¹⁴³ (2) “receive[s] a financial benefit directly attributable to the infringing activity, in a case in which the service provider has the right and ability to control such activity,”¹⁴⁴ or (3) failed to “respond[] expeditiously to remove, or disable access to, the material that is claimed to be infringing” after receiving a

138. 17 U.S.C. § 512(d). H.R. REP. NO. 105-551, pt. 2, at 56–57 (“The term ‘infringing activity’ means the wrongful activity that is occurring at the location to which the user is linked or referred by the information location tool, without regard to whether copyright infringement is technically deemed to have occurred at that location or at the location where the material is received.”).

139. As we explain below, we expect that the Terms of Service of social networking platforms will require users to agree that content uploaded to the platform can be freely “shared”—and therefore publicly “displayed”—within the mechanism of the platform by other platform users. See Part IV, *infra*.

140. See *infra* Section III.C (discussing the scope of the term “service provider”).

141. See 17 U.S.C. § 512(i)(1)(A). As we have previously noted, the application of this repeat infringer policy may be “inapplicable to a case in which a website or user seeks DMCA safe harbor to immunize itself from copyright liability for its provision of a link to a website with which the defendant does not have a pre-existing relationship.” Ginsburg & Budiardjo, *supra* note 8, at 204. See also Miquel Peguera, *When the Cached Link Is the Weakest Link: Search Engine Caches Under the Digital Millennium Copyright Act*, 56 J. COPYRIGHT SOC’Y U.S.A. 589, 614 (2009) (arguing that the § 512(d) “repeat offender policy” requirement may not apply to search engines which “lack . . . subscribers or account holders”). Moreover, as we have previously noted, § 512(d) may incorporate § 512(c)’s “designated agent” requirement. See Ginsburg & Budiardjo, *supra* note 8, at 212 n.275. While it may be impractical for individual Internet users to comply with this requirement, the designated agents of the platforms that host those individuals’ online activities may suffice to satisfy it, especially if the platforms notify their users when they receive take-down requests for user-supplied content. See, e.g., *infra* note 207 (describing Facebook’s takedown process).

142. See 17 U.S.C. § 512(i)(2); see also Ginsburg & Budiardjo, *supra* note 8, at 205 (discussing the “standard technical measures” provision in the DMCA).

143. See 17 U.S.C. § 512(d)(1).

144. *Id.* at § 512(d)(2). This provision, which mirrors the standard for affirmative vicarious liability, is not immediately relevant to the hyperlinking context because, as we have previously noted, linking defendants will rarely have the “right and ability” to control the infringing activity of the unauthorized sites to which they link. See Ginsburg & Budiardjo, *supra* note 8, at 205 n.234.

takedown notice.¹⁴⁵ These disqualification provisions essentially mirror the analysis of affirmative liability for contributory infringement and vicarious infringement.¹⁴⁶

If a defendant facing a claim of direct copyright infringement may avail herself of the safe harbor in § 512(d), then the abandonment of the server rule should have minimal effect on the liability framework. Under the server rule, such a defendant may incur liability only under the doctrines of secondary (particularly, contributory) infringement—that is, only if the copyright owner establishes that the defendant knew, or had reason to know, that her act (embedding infringing content) facilitated an act of direct infringement. Without the server rule, the same defendant would prevail under the statutory safe harbor unless the copyright owner successfully establishes that the defendant possessed similar actual or constructive knowledge.¹⁴⁷ The principal difference pertains to the availability of a statutory mechanism to obtain expeditious removal of the infringing link.¹⁴⁸ Without the server rule, but with the statutory safe harbor, the defendant's continued maintenance of the link (after a takedown request)¹⁴⁹ exposes her to the risk of direct or derivative liability. Abandonment of the server rule thus supplies an incentive to comply with copyright owners' requests to stop embedding. In the following sections, we will investigate in greater detail the extent to which § 512(d) can apply to shield linkers from copyright liability.

145. 17 U.S.C. § 512(d)(3). We have previously discussed the questionable mechanics of applying the DMCA's takedown framework to the context of infringement by reason of hyperlinking. *See* Ginsburg & Budiardjo, *supra* note 8, at 212–15.

146. Ginsburg & Budiardjo, *supra* note 8, at 206. *But see id.* at 206–12 (discussing whether the standards for secondary liability under the doctrine of contributory infringement in fact mirror the standard for disqualifying a defendant from safe harbor under § 512 of the DMCA).

147. We note, however, that the standards for establishing a claim of contributory liability as an affirmative matter and for disqualifying a defendant from safe harbor based on the actual or constructive knowledge provisions of § 512(d)(1) may be slightly different. *See id.* However, if the standards do diverge, it seems clear that copyright owner's burden for disqualifying the defendant from the statutory safe harbor is *higher* than the burden for establishing an affirmative claim of contributory infringement. *Id.* In other words, the regime under § 512(d) would be more favorable to linker-defendants than the regime under the server rule.

148. Recent case-law, however, indicates that the DMCA's "expeditious" removal requirement may tolerate delays of several days before takedown request recipients remove the content in question. *See* Long v. Dorset, No. 17-CV-02758-PJH, 2019 WL 861424, at *4 (N.D. Cal. Feb. 22, 2019) (holding that a five-day response time was sufficiently "expeditious" and citing other cases finding that longer delays also meet the statutory requirement).

149. In the context of the § 512(d) safe harbor, "the information submitted by the complaining party under [§ 512(c)(3)(A)(iii)], requiring the party seeking a take-down to identify "the copyrighted work claimed to have been infringed"] is the identification of the reference or link to infringing material or activity, and the information reasonably sufficient to permit the service provider to locate that reference or link." H.R. REP. NO. 105-551, pt. 2, at 57 (1998) (citing 17 U.S.C. § 512(d)(3)).

B. § 512 AND EMBEDDING LINKS

1. Legislative Backdrop

By its plain language, § 512(d) shields qualifying defendants from infringement “by reason of the provider *referring or linking users to an online location* containing infringing material” through use of “information location tools, including a directory, index, reference, pointer, or hypertext link”¹⁵⁰ As the legislative history makes clear, § 512(d) was passed primarily to provide protection to the “web directories” that were, at the time of the DMCA’s enactment in 1998, the “only available way of finding information on the web.”¹⁵¹ When the DMCA was drafted, web directories aggregated “presumably the best, most relevant (or at least most popular) websites on a specific topic,” and relied on teams of staff or volunteers to “populate and maintain” the databases with relevant links.¹⁵² As such, maintaining a useful online directory was an “extremely manpower intensive endeavor.”¹⁵³

During the legislative process that ultimately resulted in the Digital Millennium Copyright Act, Congress specifically recognized that these web directories—“online directories prepared by human editors and reviewers, who view and classify various Internet sites”—play a “valuable role in assisting Internet users to identify and locate the information they seek on the decentralized and dynamic networks of the Internet.”¹⁵⁴ Accordingly, Congress included a safe harbor for “information location tools” in the Digital Millennium Copyright Act,¹⁵⁵ with the objective of protecting “legitimate service providers preparing directories” from copyright infringement, while leaving unaffected the liability of “pirate” directories “which refer Internet users to other selected Internet sites where pirate software, books, movies, and music can be downloaded or transmitted.”¹⁵⁶

As the size of the Internet grew exponentially, human-edited web directories quickly lost relevance.¹⁵⁷ Instead, Internet users began using search engines like

150. 17 U.S.C. § 512(d) (emphasis added).

151. Jim Veradyna, *A History of Web Directories—The Past, Present and Future*, WEB DIRECTORY DIGEST (Jan. 5, 2019), <https://perma.cc/8NNF-QXCM>. See also Helmond, *supra* note 24, at 2 (“[N]ew actors on the web such as human-edited directories started to collect [hypertext] links by aggregating them into a single place as a reference for useful websites.”).

152. NAT’L SEC. AGENCY, UNTANGLING THE WEB: A GUIDE TO INTERNET RESEARCH 14–15 (2007), <https://perma.cc/36WG-WMRY> [hereinafter UNTANGLING THE WEB].

153. *Id.* at 15.

154. H.R. REP. NO. 105-551, pt. 2, at 58 (“The Yahoo! directory, for example, currently categorizes over 800,000 on-line locations and serves as a ‘card catalogue’ to the World Wide Web, which over 35,000,000 different users visit each month. Directories such as Yahoo!’s usually are created by people visiting sites to categorize them . . . [§ 512(d)] is intended to promote the development of information location tools generally, and Internet directories such as Yahoo!’s in particular . . .”).

155. 17 U.S.C. § 512(d).

156. H.R. REP. NO. 105-551, pt. 2, at 58.

157. Veradyna, *supra* note 151 (“[T]he period from [19]95 to 2000 saw an exponential rise in the number of website on the web. This put a serious strain on web directories [which were] edited by people. As such, the personnel demands required for keeping up with new upcoming websites were becoming too high.”). See also UNTANGLING THE WEB, *supra* note 152, at 15 (noting the “rapid and dramatic decline

Google to find and access information on the web.¹⁵⁸ Like their predecessors, search engines also aggregate simple links in response to user queries, often through complex ranking algorithms that seek to present searchers with links to the pages most relevant to their queries.¹⁵⁹

The DMCA delineates its safe harbor for “information location tools” broadly enough to encompass web directories, search engines, and other forms of “reference” links. The statutory language itself includes “director[ies], index[es], reference[s], pointer[s], or hypertext link[s]” in its list of “information location tools,” and the House Report specifically contemplates that:

[t]he term information location tools includes . . . a directory or index of online sites or material such as a search engine that identifies pages by specified criteria, a reference to other online material such as a list of recommended sites, a pointer that stands for an Internet location or address, or a hypertext link which allows users to access material without entering its address.¹⁶⁰

While the scope of § 512(d) has not been broadly litigated, courts have applied it to provide a safe harbor both for search engines and for websites that furnish simple reference links to sites containing infringing content.¹⁶¹ Most cases applying the § 512(d) safe harbor provision involve defendants who provide online platforms on which users post hyperlinks.¹⁶² The § 512(d) cases concerning defendants who themselves supplied the links at issue involved operators of search engines and online directories, similar to the actors contemplated in the DMCA’s legislative history.¹⁶³

in web directories” was “partially attributable” to search engines like Google, and to the inherent problems with manually categorizing the quickly expanding universe of internet locations).

158. Helmond, *supra* note 24, at 2 (“As the size of the web increased, other actors like search engines began to automatically index and publish these links.”).

159. *Id.* (describing Google’s PageRank algorithm and the resulting “economy of links” through which Google “regulate[s] the value of links . . . through . . . automatic indexing, processing and value determination . . .”).

160. H.R. REP. NO. 105-551, pt. 2, at 58.

161. Perfect 10, Inc. v. Google, Inc., No. CV 04-9484 AHM (SHx), 2010 WL 9479059, at *13 (C.D. Cal. July 26, 2010) (holding that Google was entitled to safe harbor under § 512(d) for a subset of the claims at issue, and was therefore partially shielded from liability for providing hyperlinks through its search engine to websites which hosted unauthorized copies of plaintiff’s copyrighted works); Perfect 10, Inc. v. CCBill, LLC, 340 F. Supp. 2d 1077, 1083, 1097-98 (C.D. Cal. 2004) (applying § 512(d) safe harbor to a website that provides age verification services to adult websites by asking users who wish to visit those websites to verify their age and then providing those users with a link to websites which allegedly contained infringing material); Perfect 10, Inc. v. Cybernet Ventures, 213 F. Supp. 2d 1146, 1179-83 (C.D. Cal. 2002) (applying § 512(d) in a case similar to *CCBill*, but denying safe harbor because of deficiencies in the defendant’s compliance with the qualification requirements).

162. See Ginsburg & Budiardjo, *supra* note 8, at 203 (citing Totally Her Media, LLC v. BWP Media USA, Inc., No. CV 13-08379-AB (PLAx), 2015 WL 12659912, at *1 (C.D. Cal. Mar. 24, 2015) (holding that a defendant which provides a “web-based social media and community discussion forum” which “contains substantial amounts of user-generated content, including user-generated links to outside content” was protected from copyright liability under § 512(d)); Columbia Pictures Indus. v. Fung, 710 F.3d 1020, 1046-47 (9th Cir. 2013) (discussing and ultimately rejecting the § 512(d) safe harbor defense raised by the defendant who operated a torrent-based file sharing platform)).

163. See Ginsburg & Budiardjo, *supra* note 8, at 203 (citing Perfect 10, Inc. v. Google, Inc., No. CV 04-9484 AHM (SHx), 2010 WL 9479059, at *13 (C.D. Cal. July 26, 2010) (holding that Google was

In other cases, courts have applied § 512(d) to online service providers other than search engines or web directories, who simply provide a handful of hyperlinks to websites, some of which may have contained infringing material.¹⁶⁴ However, courts have not considered whether an in-line hyperlink that operates to incorporate and embed content into defendant's web page qualifies as an "information location tool" and thus falls within the language of § 512(d).

2. Legislative Context

While the legislative history clearly contemplates the application of the provision to hypertext links which serve a *reference* function (that is, simple text URLs which direct users to a different location than the website displaying the link),¹⁶⁵ Congress may have also intended to include *nonreferential* hyperlinks (that is, links that serve the primary function of instructing the user's browser to retrieve third-party content and incorporate it in a webpage) within the definition of "information location tools." The House Report specifically contemplates that "[t]he term information location tools includes . . . a hypertext link which allows users to *access material without entering its address*."¹⁶⁶ And the language of the statute distinguishes "reference[s]" from "link[s]," indicating that not all "information location tools" serve a "reference" function.¹⁶⁷

At the time of Congress's enactment of the DMCA in 1998, the use of hyperlinks to "embed" third-party content in websites was already common practice, and the

entitled to safe harbor under § 512(d) for a subset of the claims at issue, and was therefore partially shielded from liability for providing hyperlinks through its search engine to websites which hosted unauthorized copies of plaintiff's copyrighted works).

164. See *id.* (citing *Perfect 10, Inc. v. CCBill, LLC*, 340 F. Supp. 2d 1077, 1079–98 (C.D. Cal. 2004) (applying § 512(d) safe harbor to a website that provides age verification services to adult websites by asking users who wish to visit those websites to verify their age and then providing those users with a link to websites which allegedly contained infringing material); *Perfect 10, Inc. v. Cybernet Ventures*, 213 F. Supp. 2d 1146, 1179–83 (C.D. Cal. 2002) (applying § 512(d) in a similar case, but denying safe harbor because of deficiencies in the defendant's compliance with the qualification requirements)).

165. Some commentators have noted that this legislative history may support the argument that the application of § 512(d) is limited to providers of search engines or directories. See Anjali Dalal, *Protecting Hyperlinks and Preserving First Amendment Values on the Internet*, 13 U. PA. J. CONST. L. 1017, 1072 (2011) (noting that the definition of "service provider" and the scope of § 512(d) is expansive, but the legislative history's specific discussion of online directories may be "somewhat more limiting"). *But see* *Perfect 10, Inc. v. CCBill, LLC*, 340 F. Supp. 2d 1077, 1097–98 (C.D. Cal. 2004) (rejecting plaintiff's argument that § 512(d) is limited to websites "which provide links to millions of websites with whom it has no relationship," and acknowledging that § 512(d) could apply to a website which "merely links to a relatively small universe of websites with whom it has in place contractual relationships and established review procedures"), *aff'd in part, rev'd in part and remanded*, 481 F. 3d 751 (9th Cir. 2007); Amy Blom, *Search Engines and § 512(d) of the D.M.C.A.*, 1 CASE W. RES. J.L. TECH. & INTERNET 36, 44–45 (2009) ("[A]lthough large search engines and directories like Google or Yahoo! seem to be what Congress had in mind when it passed the law, this safe-harbor might apply even if a search engine hosts a small number of links and has some form of contractual relationship with linked third-party sites.").

166. H.R. REP. NO. 105-551, pt. 2, at 57 (emphasis added).

167. See 17 U.S.C. § 512(d)(3) (requiring the copyright owner to notify the recipient of the take-down request with information "reasonably sufficient to permit the service provider to locate that *reference or link*") (emphasis added).

term “hypertext link”¹⁶⁸—which Congress included in the language of § 512(d) as an example of an “information location tool[]”—was clearly understood to refer to both referential and nonreferential links.¹⁶⁹ By 1998, “[w]eb technology ha[d] [already] matured beyond the simple ‘link’” such that “the creator of a Web page [could] incorporate[] graphic files located on another server into his own Web page.”¹⁷⁰ Internet architects referred to this practice as “inlining,” “mirroring,” or “embedding” and specifically noted that “embedding material by [hyperlink] reference” is a “form of hypertext link.”¹⁷¹

Before the DMCA’s enactment, early architects of the Internet anticipated that the practice of incorporating “remote” content from third-party sites into new websites through embedded in-line hyperlinks might raise intellectual property issues.¹⁷² Legal scholars writing at the time of the DMCA’s passage noted that “a site owner can incorporate parts of or entire Web sites produced by others” through hyperlinking, and warned that this function of the Internet is “parasitic [in] nature” and would “allow users to avoid visiting the destination site directly, costing advertisers on that site potential customers.”¹⁷³ One 1998 law review note urged

168. One might argue that the inclusion of the term “hypertext link”—as opposed to the term “hyperlink”—indicates that Congress intended to limit § 512(d)’s definition of “information location tools” to simple reference links (which appear, to the user, as clickable, underlined “hypertext”). However, the House Report indicates that Congress used the two terms interchangeably. *See* H.R. REP. NO. 105-551, pt. 2, at 57, 65 (1998) (providing the example of a “service provider that provides a hyperlink to a site containing infringing material” and referring to web directories as “hyperlink directories”). Early architects of the Internet, writing at the time of the DMCA’s passage, seemed to understand in-line or “embedding” links as a “form of hypertext link.” *See* Tim Berners-Lee, *Commentary on Web Architecture: Links and Law*, W3C (Apr. 1997), <https://perma.cc/XKZ9-UCUN>. Moreover, the reference to “hypertext link[s]” in the language of Section 512(d) appears in a non-exhaustive list of examples of “information location tools.” *See* 17 U.S.C. § 512(d). That non-exhaustive list also includes the term “pointer,” which may simply refer to a technical device used to specify “an Internet location or address.” *Id.*; H.R. REP. NO. 105-551, pt. 2, at 57 (1998) (noting that an example of an “information location tool” is “a pointer that stands for an Internet location or address”).

169. Tim Berners-Lee explained in 1997 that there are “[t]wo sorts of link”: “[n]ormal links” which are “simply references” and, when followed, creates a “new window [to display] the linked document” or simply “delete[s]” the previous linking webpage and “the linked document is displayed in its place;” and “embedded” links, which incorporate “remote” content into a webpage “without having to make a separate local copy,” by “referenc[ing] [the content’s] original address.” *See* Berners-Lee, *supra* note 168.

170. Brian D. Wassom, Note, *Copyright Implications of ‘Unconventional Linking’ on The World Wide Web: Framing, Deep Linking and Inlining*, 49 CASE W. RES. L. REV. 181, 186, 193 (1998). In-line linking, or “hotlinking,” began creating problems for copyright owners as early as 1995. *Id.* at 219–20. In one early example, the company “United Media made its famous ‘Dilbert’ cartoon strip available” on its website as early as 1995, and became frustrated when “self-described ‘hackers’ [would] inline the graphic into their own pages.” *Id.* “[I]n order to make it more difficult for hackers to inline the cartoon, United Media began to assign the graphic file a random name and adjusted the dimensions of the file slightly each day.” *Id.* The “hackers” were undeterred: one of them created a program to circumvent these attempts to avoid hotlinking, prompting a “series of cease and desist orders.” *Id.*

171. *Id.*; Berners-Lee, *supra* note 168.

172. Berners-Lee, *supra* note 168 (“I expect that in the future [embedding mechanisms] will allow one to find out the owner and license terms for distribution of that image, which is important for intellectual property rights to be respected on the Web.”).

173. Jonathan B. Ko, *Para-Sites: The Case for Hyperlinking as Copyright Infringement*, 18 LOY. L.A. ENT. L. REV. 361, 365–66 (1998).

courts to “establish a presumption” that unauthorized in-line linking “infringe[s] on the right of display,” and argued that “[o]nline pursuits of the arts and imagery will be substantially curtailed if inliners are permitted to display another’s work while hiding the creator’s identity.”¹⁷⁴

“Framing”¹⁷⁵ was also a well-established element of web design at the time of the DMCA’s enactment. The web browser Netscape’s 1996 release of the Navigator 2 browser included a “framing” capability—one form of an embeddable hyperlink—which allowed website creators to “frame” other websites within their own by means of an embedded hyperlink.¹⁷⁶ This capability gave rise to at least one well-publicized copyright infringement action—filed in February 1997, well before the enactment of the DMCA—in which the *Washington Post* and other media companies sued a news site, TotalNEWS, which used “framing” hyperlinks to display news articles published by the plaintiffs within frames on its site.¹⁷⁷

Given the clear indication that “in-line” and “framing” links were considered “form[s] of hypertext link[s]”¹⁷⁸ and were widely used as elements of web design at the time of the DMCA’s passage, one could reasonably conclude that Congress’s definition of “information location tools” in § 512(d) encompasses these forms of hyperlinks. While Congress may not have anticipated the significant role that in-line linking (in particular, the practice of “sharing”) would play in today’s Internet, one might reasonably conclude that Congress’s intention to relieve the providers of “information location tools” from the burden of “determin[ing] whether [a linked-to piece of content] was still protected by copyright or was in the public domain, . . . whether the use was licensed; and if the use was not licensed, whether it was permitted under the fair use doctrine” by limiting their liability with a knowledge-based statutory safe harbor applies in full force to the broad category of online actors who provide embedded links today.¹⁷⁹

One might explain the total lack of case law applying § 512(d) to nonreferential, “embedded” hyperlinks by noting that courts had been hesitant to hold that any form of hyperlinking constitutes a copyright-triggering act even before the Ninth Circuit’s holding in *Perfect 10 v. Amazon*.¹⁸⁰ And given the general prevalence of the server

174. Wassom, *supra* note 170, at 247, 255.

175. See *supra* note 10 (defining “framing”).

176. Roger Hudson, *Hyperlinks, Frames and Intellectual Property*, WEB USABILITY (1998), <https://perma.cc/X4VN-9HYE>; Robert L. Tucker, *Information Superhighway Robbery: The Tortious Misuse of Links, Frames, Metatags, and Domain Names*, 4 VA. J.L. & TECH. 8, 50 (1999) (noting that “[f]raming” was first introduced to hypertext markup language programming in 1996 as a proprietary feature available for use with the Netscape Navigator browser,” and that, by 1999, framing technology was “widely used on Web sites and [was] compatible with most commercial browsers”).

177. See *Washington Post Co v. TotalNEWS, Inc.*, No. 97-CV-1190 (S.D.N.Y. filed Feb. 7, 1997). The plaintiffs had argued that TotalNEWS “engaged in the Internet equivalent of pirating copyrighted material from a variety of famous newspapers, magazines, or television news programs.” See Ko, *supra* note 173, at 389 (citing the Complaint in that case). The parties ultimately reached a settlement under which TotalNEWS agreed to “permanently cease the practice of framing.” *Id.*

178. See Berners-Lee, *supra* note 168.

179. H.R. REP. NO. 105-551, pt. 2, at 57–58 (1998).

180. See, e.g., *Perfect 10, Inc. v. Cybernet Ventures, Inc.*, 213 F. Supp. 2d 1146, 1168–69 (C.D. Cal. 2002) (finding that Perfect 10 has not established a likelihood success on its direct infringement theory

rule since 2007, there has so far been no need for courts to consider whether embedding content via a hyperlink qualifies for the § 512(d) safe harbor defense because such an act was, as a matter of law, not copyright infringement.

C. THE DEFINITION OF “SERVICE PROVIDER” AND EMBEDDING LINKS

In order to qualify for the safe harbor, a defendant facing an infringement claim based on the provision of a hyperlink must qualify as a “service provider.” Section 512 of the DMCA defines the term “service provider” for the purposes of the § 512(d) safe harbor as “a provider of online services and network access, or the operator of facilities therefor.”¹⁸¹ The DMCA does not in turn define “online services.” The definition of “service provider” is exceedingly vague, and is subject to a variety of interpretations.¹⁸² But courts have already interpreted the term very open-endedly, noting that it is “intended to encompass a broad set of Internet entities.”¹⁸³ One court indicated that the definition was so broad that it “[had] trouble imagining the existence of an online service that would *not* fall under the definition.”¹⁸⁴

The key difficulty with the argument that the term “service provider” encompasses an online actor who herself causes the creation of a link (for example, a blogger who embeds content through a hyperlink, or a social media user who creates new displays of content by embedding a URL or resharing a post) is that prior judicial interpretations of that term, and perhaps even the structure of the DMCA’s safe harbor provisions as a whole, seem to imply that the term “service provider” is limited to *platform* providers; that is, that the term “services” refers to online locations designed to be populated with content provided by actors other than the “service provider” itself. The examples of service providers given in the House Report (“services such as providing Internet access, e-mail, chat room and web page hosting services”¹⁸⁵) and in most of the relevant case law (businesses such as online

because the defendant “does not use its hardware to either store the infringing images or move them from one location to another for display,” and holding that “[t]his technical separation between its facilities and those of its webmasters prevents Cybernet . . . makes it doubtful that Cybernet publicly displays the works”); *Ticketmaster Corp. v. Tickets.com, Inc.*, No. 99-7654, 2000 WL 1887522 (C.D. Cal. Mar. 27, 2000) (holding that unauthorized “deep hyperlinking,” or providing a link to a site other than the homepage, is not an act of direct infringement).

181. 17 U.S.C. § 512(k)(1)(B).

182. See Jane C. Ginsburg, *User-Generated Content Sites and Section 512 of the US Copyright Act*, in *COPYRIGHT ENFORCEMENT AND THE INTERNET* 183, 188–89 (Irina A. Stamatoudi, ed., 2010) [hereinafter Ginsburg, *User-Generated Content*] (offering a broad and narrow interpretation of the term “service provider”).

183. *Viacom Int’l, Inc. v. YouTube, Inc.*, 676 F.3d 19, 39 (2d Cir. 2012). See also *ALS Scan, Inc. v. RemarQ Communities, Inc.*, 239 F.3d 619, 623 (4th Cir. 2001) (“The Act defines a service provider broadly. . .”).

184. *In re Aimster Copyright Litig.*, 252 F. Supp. 2d 634, 658 (N.D. Ill. 2002). See also *Corbis Corp. v. Amazon.com, Inc.*, 351 F. Supp. 2d 1090, 1100 (W.D. Wash. 2004) (noting that the term “service provider” “encompasses a broad variety of Internet activities”).

185. H.R. REP. NO. 105-551, pt. 2, at 64 (1998).

auctions sites, like eBay,¹⁸⁶ and online real estate listing services¹⁸⁷) “consist entirely of enterprises who provide ‘space’” for third-party users, “not for the operators of the websites [or the users of the websites] themselves.”¹⁸⁸ In other words, these conceptions of the term “service provider” rely on the assumption that there are two “levels” of actors involved in the infringing activity—the provider of the platform and the provider of the content—and that only the former may enjoy the safe harbors provided by § 512. Under this view, § 512 safe harbors would be inapplicable to a situation in which only one “level” exists, such as when an individual both sets up a website and places infringing content on it. Accordingly, individual bloggers who incur liability through embedding content or social media users who embed content on their individual pages could not qualify.

However, this platform-and-user interpretation of the “service provider” term seems to stem not from the structure of § 512 as a whole, but from its most relevant and highly litigated subsection: § 512(c). Most judicial interpretations of the term “service provider” (as defined by the relevant provision, § 512(k)(1)(B)¹⁸⁹) arise within the context of § 512(c).¹⁹⁰ That subsection explicitly contemplates separation between the service provider, on the one hand, and the user of the platform provided by the service provider, on the other: “A service provider shall not be liable . . . for infringement of copyright by reason of the storage at the direction of the *user* of material that resides on a system or network controlled or operated by and for the *service provider*. . . .”¹⁹¹

By contrast, the language establishing the safe harbor for “information location tools” does not assume the existence of both a platform and a user. That language merely protects a “service provider” who “refer[s] or link[s] users to an online location”—in other words, the primary actor causing the activity from which copyright liability arises is the “service provider” itself. One might conclude that this language reflects a clear congressional intention to protect web directories, which of course served both as the “platform” provider (by setting up and hosting their own websites) and the “content” provider (by finding and curating links to

186. *Hendrickson v. eBay, Inc.*, 165 F. Supp. 2d 1082 (C.D. Cal. 2001) (but parties did not dispute whether eBay was a ‘service provider’ within the meaning of the statute).

187. *Costar Group Inc. v. Loopnet, Inc.*, 164 F. Supp. 2d 688, 701 (D. Md. 2001) (“‘Online services’ is surely broad enough to encompass [a service allowing users to post commercial real estate listings]”).

188. Ginsburg, *User-Generated Content*, *supra* note 182, at 188.

189. Other “service provider” cases involve a different definition of that term, which applies only to the § 512(a) safe harbor for “transitory digital network communications.” *See* 17 U.S.C. § 512(k)(1)(A) (defining “service provider” for the purposes of § 512(a)); *see, e.g.*, *Columbia Pictures Indus. v. Fung*, 710 F.3d 1020, 1040–42 (9th Cir. 2013).

190. *See, e.g.*, *Wolk v. Kodak Imaging Network, Inc.*, 840 F. Supp. 2d 724, 743–44 (S.D.N.Y. 2012), *aff’d sub nom. Wolk v. Photobucket.com, Inc.*, 569 F. App’x 51 (2d Cir. 2014); *Corbis Corp. v. Amazon.com, Inc.*, 351 F. Supp. 2d 1090, 1099 (W.D. Wash. 2004), *overruled on other grounds*, *Cosmetic Ideas, Inc. v. IAC/Interactivecorp.*, 606 F.3d 612 (9th Cir. 2010); *Greg Young Publ’g, Inc. v. Zazzle, Inc.*, No. 2:16-CV-04587-SVW-KS, 2017 WL 2729584, at *6 (C.D. Cal. May 1, 2017); *Gardner v. CaféPress Inc.*, No. 3:13-CV-1108-GPC-JMA, 2014 WL 794216, at *5 (S.D. Cal. Feb. 26, 2014); *Viacom Int’l, Inc. v. YouTube, Inc.*, 718 F. Supp. 2d 514, 518 (S.D.N.Y. 2010); *Io Grp. v. Veoh Networks, Inc.*, 586 F. Supp. 2d 1132, 1142–43 (N.D. Cal. 2008).

191. 17 U.S.C. § 512(c)(1) (emphasis added).

populate their directories). The legislative history of the DMCA specifically refers to web directories like Yahoo!, which at the time operated its own platform and used its own employees to identify, curate, and maintain the directory lists, and noted the indispensability of the “human judgment and editorial discretion exercised by [these companies]” to the smooth functioning of the Internet.¹⁹² If the term “service provider” were to exclude actors who themselves post specific links to infringing content, then § 512(d) would be limited to platform websites and bulletin boards on which users post hyperlinks. This interpretation would not further Congress’s intent to protect web directories; it would be inconsistent with the text of § 512(d), which clearly covers the provider of an “information location tool[],”¹⁹³ and it would be redundant with § 512(c)’s exemption of services that host third-party infringing activity.¹⁹⁴

If the term “service provider,” in the context of § 512(d), thus covers online actors who populate webpages with hyperlinks to other places on the Internet—as the legislative history’s focus on web directories strongly implies—then the application of that term to an online actor who incorporates third-party content into a website or a social media page via in-line links requires no great interpretive leap. Like web directories, these online actors simply use hyperlinks to aggregate content from elsewhere on the Internet. Social media users, for example, have curatorial control over what appears on their profile pages: each social media user, in effect, has her own personalized web directory—an online location comprising a collection of her favorite content (including content directly uploaded to the platform, content uploaded to the platform by other users and “liked” or “shared” by the user, and content linked to from elsewhere on the web).¹⁹⁵

Accordingly, some commentators have argued that § 512(d) can apply to “bloggers and website operators who embed infringing video content,” even though those actors operate products which may admittedly strain the definition of “online

192. H.R. REP. NO. 105-551, at 58 (1998).

193. 17 U.S.C. § 512(d).

194. See Section III.E., *infra*, for analysis Section 512(c) and platforms’ hosting of infringing links.

195. It is true, however, that today’s social media environment is focused less on individual “profile pages” and more on “news feeds”—personalized “feeds” which “highlight[] or promote[] certain stories [or posts] that are algorithmically identified to be popular or particularly relevant to the reader.” See Paul Lapedes et al., *News Feed: What’s in It For Me? in* PROCEEDINGS OF THE 33RD ANNUAL ACM CONFERENCE ON HUMAN FACTORS IN COMPUTING SYSTEMS, at 163 (Apr. 2015); see also Jillian D’Onfro, *Facebook’s News Feed is 10 Years Old. This Is how the Site Has Changed*, WORLD ECONOMIC FORUM (Sept. 9, 2016), <https://perma.cc/WL5D-A5YL> (providing a history of the “news feed” as a feature of social media, and noting that “[t]oday, most social networks use some similar form of a live-updating central hub of content”). Nonetheless, the collection of posts generated by a particular user constitutes an “interactive space”—albeit one that is distributed piecemeal across the network—unique to her. See *Knight First Amendment Inst. at Columbia Univ. v. Trump*, 302 F. Supp. 3d 541, 566, 573–74 (S.D.N.Y. 2018) (noting that “several aspects of the @realDonaldTrump [Twitter] account . . . [including] the content of the tweets sent, the timeline comprised of those tweets, [and] the comment threads initiated by each of those tweets” form an “interactive space” to which qualifies as a “public forum” for the purposes of First Amendment analysis).

service.”¹⁹⁶ Moreover, several courts have applied and interpreted § 512(d) in ways that necessarily imply that the safe harbor can apply to providers of online services which themselves furnish links to other sites, without the contributions of users.¹⁹⁷ Given courts’ willingness to interpret the term “service provider” broadly, and given the clear support for the application of that term to defendants who themselves furnish links (rather than the limitation of that term to platform providers), § 512(d) may apply to defendants facing claims of copyright infringement arising from embedding infringing content through hyperlinks.

If courts interpret § 512(d) to provide a partial liability shield against copyright infringement actions based on the use of embedded hyperlinks to content from unauthorized third-party sites, the reversal of the server rule will have no effect whatsoever on the liability resulting from embedded links to unauthorized—i.e., infringing—sites (so long as the linker removes the embed in response to a takedown request). Under both the server rule and the post-server rule regime, the linker-defendant’s liability will depend on her level of actual or constructive knowledge of the infringing nature of the linked-to site.¹⁹⁸

D. § 512 AND NON-PLATFORM LINKERS

Assuming that courts interpret § 512(d) to cover embedding hyperlinks,¹⁹⁹ and that courts accept an expansive view of the term “service provider,”²⁰⁰ one can expect

196. Bayard, *supra* note 136; Seiden & Norton, *supra* note 113, at 59 (arguing that the defendants in *Goldman* court “assert that [Section 512(d)] protects their conduct via the external linking aspect of the embedding process”).

197. *Perfect 10, Inc. v. CCBill, LLC*, 340 F. Supp. 2d 1077, 1097–98 (C.D. Cal. 2004) (rejecting plaintiff’s argument that § 512(d) is limited to websites “which provide links to millions of websites with whom it has no relationship,” and acknowledging that § 512(d) could apply to a website which “merely links to a relatively small universe of websites with whom it has in place contractual relationships . . .”), *aff’d in part, rev’d in part and remanded*, 481 F.3d 731 (9th Cir. 2007); *Perfect 10, Inc. v. Google, Inc.*, No. CV 04–9484 AHM (SHx), 2010 WL 9479059, at *13 (C.D. Cal. July 26, 2010) (holding that Google was entitled to safe harbor under § 512(d) for a subset of the claims at issue, and was therefore partially shielded from liability for providing hyperlinks through its search engine to websites which hosted unauthorized copies of plaintiff’s copyrighted works).

198. Arguably, § 512(d)’s focus on the illicit source implies that linking to a lawful source is not infringing, hence no need to devise an immunity. In support of that argument, one might contend that even in 1998, links supplied an essential mode of communication on the internet, and it would be perverse to derive from Congress’ provision for immunity from liability only for linking to unlawful sources a negative inference of liability for linking to lawful sources. To counter that contention, one might point out that § 512 does not modify the scope of the exclusive rights in 17 U.S.C. § 106: infringing conduct remains infringing. Rather, for service providers who meet the criteria for the safe harbors, § 512’s immunities in fact limit the remedies available “for infringement of copyright.” Even if Congress’ failure to specify a limitation on remedies for linking to noninfringing sites implies an assumption that such links were not infringing, one should bear in mind that “simple” or “reference” links offered the most prevalent form of linking in 1998—and certainly the kind of links debated during the legislative history of the DMCA. *See supra* Section III.B.1. And there is no contention that pointing users to a third party’s website, rather than effectively incorporating that site’s content into one’s own page, “displays” targeted content.

199. *See supra* Section III.B.

200. *See supra* Section III.C.

defendants to rely increasingly on that provision in the absence of the server rule. As long as a defendant can establish that the source site from which she appropriated a piece of content was *unauthorized* (that is, contains “infringing material or infringing activity”), that defendant could rely on § 512(d) to escape the strict liability regime of traditional direct infringement claims. Google, for example, could claim the § 512(d) safe harbor and thus shield itself from infringement claims based on its use of in-line links to display full-sized images from infringing websites in Google Image Search results.²⁰¹ Similarly, members of the media (like the defendants in the *Goldman v. Breitbart* litigation) may escape strict-liability direct infringement claims based on the embedding of copyrighted content by establishing that the linked-to content was itself infringing, thus qualifying for § 512(d)’s knowledge-based regime.²⁰²

In some circumstances, § 512(d) may also apply to shield social media users from direct infringement suits. As discussed above, content sharing via hyperlink (that is, placing content from a third-party site onto a social media platform using a hyperlink and an automatically-generated display of the linked-to content) and intranetwork sharing (that is, “liking,” “sharing,” or “retweeting” a pre-existing social media post) would, in a post-server rule world, constitute acts of public display or performance because these acts necessarily create new displays or performances of copyrighted content and broadcast that content to a new audience online.²⁰³ While suits against social media users alleging copyright infringement on the basis of social media sharing may be exceedingly rare and ultimately impractical,²⁰⁴ § 512(d) may provide some protection for users who nevertheless face an infringement claim. Below, we briefly revisit our taxonomy of social media “sharing” practices involving the use of embedded links to investigate how § 512(d) might apply to each.²⁰⁵

1. Content Sharing via Hyperlink

Social media users who place third-party content on a platform without permission by posting hyperlinks which automatically convert to embedded displays may face infringement claims with or without the server rule. As noted above, many

201. *See, e.g., Perfect 10, Inc. v. Amazon*, 508 F.3d 1146, 1157 (9th Cir. 2007) (“Some website publishers republish Perfect 10’s images on the Internet without authorization. Once this occurs, Google’s search engine may automatically index the webpages . . . and provide thumbnail versions When a user clicks on the thumbnail image returned by Google’s search engine, the user’s browser accesses the third-party webpage and in-line links to the full-sized *infringing* image stored on the website publisher’s computer.”) (emphasis added).

202. *See, e.g., Goldman v. Breitbart News Network, LLC*, 302 F. Supp. 3d 585, 586 (S.D.N.Y. 2018) (noting that Goldman “claim[ed] [that] he never publicly released or licensed his photograph,” which implies that the linked-to source of Goldman’s image was itself infringing).

203. *See supra* Section II.B.3.

204. *But see* Complaint at 10, *Flaherty v. Big Red, Inc., et al.*, No. 1:15-CV-00566 (W.D. Tex. filed June 30, 2015) (alleging that plaintiff’s copyrighted work was “uploaded, pinned, shared, reproduced, copied, [and] distributed” on Twitter and on Facebook, and that work was subsequently “‘re-tweeted’, ‘shared’, etc. by at least one third party resulting in direct infringement by that third party”).

205. *See supra* Section II.B.2.

social media platforms convert user-provided hyperlinks to embedded displays of underlying content *not* by pulling content directly from the source site, but instead by “crawling” the source site, saving a cached copy of the linked-to content, and displaying the cached copy.²⁰⁶ At least in theory, a social media user who shares a hyperlink on such a platform commits a copyright-triggering act by causing the platform to create a cached copy of the linked-to content (thereby implicating the copyright owner’s exclusive right to reproduce copies) and to display the cached copy on the user’s page and elsewhere on the platform. Copyright owners have not brought claims against social media users on this basis, perhaps because of the impracticality of suing individual users (in light of the potentially cheaper alternative of sending a takedown notice to the platform²⁰⁷), and perhaps because many copyright owners would likely welcome or encourage social media users to “share” their content online.²⁰⁸ Indeed, the lack of such suits may both further prove that social media users are unlikely to face legal liability for commonplace social media activities and further undercut claims that, without the server rule, “users would hesitate before embedding a link in their content for fear of incurring direct infringement liability.”²⁰⁹

For social media users who share content via hyperlinks on platforms which do *not* cache copies of linked-to content (and who therefore could not face a claim of direct infringement under the server rule), § 512(d) may provide a defense to the unlikely claim of direct infringement. Users who share content from infringing sites—those containing “infringing material or infringing activity”—will be able to avoid the strict liability standard by claiming that their automatically-generated embedded displays of the infringing linked-to content is covered by § 512(d).²¹⁰ Of course, users who share content from authorized sites (for example, a user who

206. See *supra* note 116.

207. Most social media platforms have well-established procedures and mechanisms to allow copyright owners to request the removal of infringing content uploaded by platform users. See *Reporting Copyright Infringements*, FACEBOOK HELP CENTER, <https://perma.cc/2WHX-VNGE> (last visited Jan. 18, 2019).

208. Some platforms do not automatically create embedded displays of content in response to user-posted links by default, and instead invite website owners to opt in to embedding. See *Optimize Tweets with Cards: About Twitter Cards*, TWITTER DEVELOPER, <https://perma.cc/RS2P-JC67> (last visited Jan. 26, 2019) (“With Twitter Cards, you can attach rich photos, videos and media experiences to Tweets [by] [s]imply add[ing] a few lines of markup to your webpage, [so that] users who Tweet links to your content will have a ‘Card’ [which can include an image] added to the Tweet that’s visible to their followers”). Website owners who opt in to such embedding would be highly unlikely to object when social media users post links to their sites and subsequently generate new public displays of their content.

209. EFF Goldman Amicus Brief, *supra* note 59, at 9; see also *id.* at 10 (“Among other effects, this would encourage users to link only to images and videos posted by major media outlets or corporations, because they could reasonably assume that those did their due diligence and did not post infringing content.”).

210. § 512(d) would also apply to shield off-platform linkers—*i.e.*, users who embed content from social media platforms on third-party websites—from infringement claims so long as the linked-to content is itself infringing. If, by contrast, the linked-to content resides on the social media platform with the authorization of the relevant rightsholder, the off-platform linker could assert an express license defense based on the rightsholder’s assent to the platform’s Terms of Service. See *infra* Section IV.A. (discussing express licenses, platform Terms of Service, and off-platform linking).

shares, without permission, a hyperlink to an image posted on a photographer's website) may, at least theoretically, risk a claim of direct infringement and would not enjoy the protection of the DMCA. However, as noted above, such claims are highly unlikely, particularly because the copyright owner may find it less expensive to request that the platform take down the link.²¹¹

2. Intranetwork Sharing

Social media users who share or rebroadcast preexisting social media posts via “sharing,” “liking,” or “retweeting” may also avail themselves of § 512(d)'s safe harbor in the unlikely²¹² event that they face an infringement suit. Particularly when the user's act of “sharing” a preexisting post results in a new post that explicitly refers back to the original post,²¹³ sharing users may qualify for § 512(d) safe harbor because their new post “refer[s] or link[s] users to an online location” (the shared post) “containing infringing material” (an infringing copy of a work) “or infringing activity” (an infringing link and embedded display of a work).²¹⁴

E. § 512 AND PLATFORM LIABILITY

The reversal of the server rule may also expose various Internet platforms which provide the means for their users to embed copyrighted content from third-party sites to novel claims of direct or secondary infringement. One can expect that, in a post-server rule world, platforms may face two forms of new infringement claims arising from embedded hyperlinks. First, platforms may encounter infringement claims when their users embed content on their platforms without authorization from copyright holders.²¹⁵ Second, many social media platforms repost user-generated

211. As we note below, the platforms are likely to honor such takedown requests in order to ensure that they can claim safe harbor under § 512(c) or 512(d). *See infra* Section III.E.

212. *But see* Klaris & Bedat, *supra* note 125 (noting that plaintiffs have brought defamation claims against social media users for sharing or retweeting defamatory posts).

213. *See supra* notes 118–119 and accompanying text (describing intranetwork sharing).

214. 17 U.S.C. § 512(d). Note, however, that social media users who use platforms to share preexisting social media content, where the result of the sharing activity is a new post that embeds content directly from a source website without reference to the original poster, *see supra* notes 118–119 and accompanying text, would not be able to claim § 512(d) safe harbor under the same logic because the new post does not “refer[] . . . users to [the original post].” 17 U.S.C. § 512(d). If the result of the sharing activity is an embedded display of content from an infringing website, however, the sharing user may still claim § 512(d) safe harbor because she has referred users to an online location containing “infringing material.” *Id.*

215. Platforms may shield themselves from such direct infringement claims by noting that they lack the “volitional conduct” necessary to allege a claim of direct copyright infringement. *See* Am. Broad. Cos. v. Aereo, Inc., 573 U.S. 431, 453 (2014) (noting that “[a] defendant may be held liable only if it has engaged in volitional conduct that violates the [Copyright Act]” and that “the volitional-act requirement demands conduct directed to the plaintiff's copyrighted material”) (Scalia, J., dissenting). Note, however, that the majority opinion in *Aereo* cast doubt on prior courts' insistence on a “volitional conduct” requirement. *See* Rebecca Giblin & Jane C. Ginsburg, *We (Still) Need to Talk About Aereo: New Controversies and Unresolved Questions After the Supreme Court's Decision*, 38 COLUM. J.L. & ARTS 109, 127 (2015) (“While *Aereo* addressed only the public performance right, the majority's opinion raises

content by algorithmically promoting content in users' news feeds.²¹⁶ Accordingly, this practice of redisplaying user content may form the basis of direct infringement claims. We address each category of infringement claims in turn.

1. Hosting User Posts

Section 512(c) shields service providers from claims of “infringement of copyright by reason of the storage at the direction of a user of material that resides on a system or network controlled or operated by or for the service provider.”²¹⁷ Section 512(c) typically addresses infringing content uploaded by users to a defendant's platform (“storage at the direction of a user”).²¹⁸ But the user-stored “material” to which § 512(c) applies can also include an infringing hyperlink. Although the readiest meaning of “material” is “content,” as Congress probably understood when it enacted § 512 in 1998,²¹⁹ “material” could also extend to hosted links—the language does not specify that the “material” stored must be the *copyrighted* material itself.²²⁰ Sites offering individual links or aggregating links to

questions about the continued application of the ‘volition’ standard to the reproduction right.”). Nonetheless, several courts have affirmed the volitional conduct requirement after *Aereo*. See, e.g., *BWP Media USA, Inc. v. T & S Software Ass’n*, 852 F.3d 436, 444 (5th Cir. 2017), *cert denied*, 138 S.Ct. 236 (2017) (“[W]hether there is volitional conduct is the first step of establishing [direct] infringement. . .”).

Platforms may also defend themselves against claims of contributory infringement arising from their provision of technical means to enable embedding by platform users by showing that such technical means are “capable of substantial noninfringing uses.” See *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 442 (1984) (“[T]he sale of copying equipment, like the sale of other articles of commerce, does not constitute contributory infringement if the product is widely used for legitimate, unobjectionable purposes.”); *but see Metro-Goldwyn-Mayer Studios, Inc. v. Grokster, Ltd.*, 545 U.S. 913, 948 (2005) (“Even if the absolute number of noninfringing [uses] is large, it does not follow that [defendants’ service is] therefore put to substantial noninfringing uses and [is] thus immune from liability”) (Ginsburg, J., concurring); *id.* at 955 (noting that the “foreseeability development of [noninfringing uses of defendants’ service], when taken together with an estimated 10% noninfringing material, is sufficient” to establish that defendants’ service is capable of substantial noninfringing use under *Sony*) (Breyer, J., concurring).

216. See *supra* note 121 and accompanying text (describing “automated sharing” on social media).

217. 17 U.S.C. § 512(c)(1).

218. See, e.g., *Capitol Records, LLC v. Vimeo, LLC*, 826 F.3d 78, 98 (2d Cir. 2016) (holding that Vimeo, a video hosting website on which users upload content, was protected against claims of copyright infringement by § 512(c) because the plaintiffs had failed to show that Vimeo had actual or constructive knowledge of the infringing nature of certain videos uploaded by users).

219. As the legislative history of the provision makes clear, “[s]torage,’ in this context, has a unique meaning . . . [e]xamples of such storage include providing server space for a user’s web site, for a chatroom, or other forum in which material may be posted at the direction of users.” *Mavrix Photographs, LLC v. Livejournal, Inc.*, 873 F.3d 1045, 1052–53 (9th Cir. 2017) (quoting S. REP. NO. 105-190, at 43 (1998)).

220. Note, however, that most interpretations of the relevant language from § 512(c) construct the word “material” to mean “user-generated material.” See *UMG Recordings, Inc. v. Shelter Capital Partners LLC*, 718 F.3d 1006, 1016 (9th Cir. 2013) (applying § 512(c) safe harbor to “access-facilitating processes” such as the creation of “chunked” copies and Flash files which enable video streaming after users “upload [] video[s]”); *Viacom Int’l, Inc. v. YouTube, Inc.*, 676 F.3d 19, 40 (2d Cir. 2012) (applying § 512(c) safe harbor to an algorithm which showed users thumbnails of “related videos” on YouTube only because the algorithm “is closely related to, and follows from, the storage [of user-generated videos] itself”).

infringing sources existed in 1998,²²¹ it is not apparent that § 512(c)'s notice-and-takedown regime intended to exclude such sites. Moreover, the purpose behind § 512—to shield online service providers from copyright liability absent actual or constructive knowledge²²²—represents a congressional decision that relieving those providers of the burden of proactively policing their platforms for infringing content best serves the development of the Internet.²²³ Application of § 512(c) to fulfill this intended purpose would entirely avoid the nightmare scenario advanced by the Electronic Frontier Foundation in its *Goldman* amicus brief—in which “the platforms upon which many users rely to share information would hesitate to allow many forms of user-generated content . . . [t]o avoid the risk of liability, platforms might have to conduct a legal review of all such content too [sic] root out any links that could lead to direct liability.”²²⁴ In fact, to avoid the risk of liability, platforms will incur no pro-active duties; to enjoy immunity under §512(c), they simply will need to respond expeditiously to a takedown notice from the right holder. (The same applies under §512(d) to platforms or individual users who directly link to infringing content).

2. Automatic Reposting by Platforms

Section 512(c) would not provide a safe harbor to a social media platform facing a claim of direct or secondary infringement arising from that platform's own reposting of user-generated content on a news feed. Because § 512(c) applies only to claims “for infringement of copyright by reason of the *storage at the direction of a user* of [infringing] material,” the provision would be inapplicable when a platform

221. H.R. REP. NO. 105-551, pt. 2, at 58 (1998).

222. *Id.*

223. *See, e.g.*, 17 U.S.C. § 512(m) (“Nothing in this section shall be construed to condition the applicability of [the safe harbor provisions] on (1) a service provider monitoring its service or affirmatively seeking facts indicating infringing activity . . .”).

224. Amicus Brief of the Electronic Frontier Foundation and Public Knowledge in Support of Defendants' Motion for Partial Summary Judgment at 10, *Goldman v. Breitbart News Network, LLC*, No. 1:17-CV-3144-KBF (S.D.N.Y. filed Oct. 19, 2017).

Platform-defendants might also rely on the safe harbor in § 512(d), as addressed above. Such defendants could claim that, by storing and displaying embedded hyperlinks on their platforms, they themselves “refer[] or link[] users to an online location” and thus qualify for the safe harbor for “information location tools.” 17 U.S.C. § 512(d). More likely, however, the platform would be wary of attributing to itself the acts of its users. By hosting the linking site, the platform has *facilitated* the linking, but has not itself “referred or linked users to an online location.” Moreover, § 512(d) would not apply when the infringing links refer users to a location in which no “infringing material” exists and no “infringing activity” occurs—for example, a site which displays copyrighted content *with authorization*. While § 512(d) thus might not help link-facilitators, § 512(c) fits the bill.

Further, even if courts decline to apply § 512(c) to claims against platforms arising from their hosting of user-provided links and embedded displays, many platforms can avoid liability by adopting a system architecture that relies on *caching* linked-to content before displaying it (rather than displaying content through in-line links directly to source sites). *See supra* note 116 and accompanying text (describing “caching” of linked-to content by social media platforms). Such platforms may instead rely on § 512(b), which provides a safe harbor for “system caching.” 17 U.S.C. § 512(b); *see generally* Peguera, *supra* note 141, at 13–22 (discussing § 512(b) and the practice of system caching).

itself (that is, not at the direction of a user) decides to repost the links, thereby generating potentially infringing public displays. But platforms may rely on § 512(d), because by reposting they have themselves “refer[red] or link[ed] users to an online location” (the original post) “containing infringing material or activity” (the unauthorized link).²²⁵ Alternatively, as we discuss in the next section, when the reshared post contains material uploaded to the platform by the copyright holder, platforms may rely on the provisions of their Terms of Service, which will likely authorize the platforms to share and reshare any content that users upload to the platform.²²⁶

IV. THE ROLE OF LICENSES

While the DMCA’s safe harbor provisions may provide a defense for embedding unauthorized content, including reembedding from unauthorized hyperlinks, defendants who embed content directly from authorized sources will be unable to claim the protections of § 512. These defendants, however, may be able to fend off infringement claims by raising an express or implied license defense.

To illustrate the combined effect of § 512 and express licenses, we briefly return to the *Otto* story recounted in the Introduction.²²⁷ In our first variation on the actual events, Otto’s text message to his friend included the Trump-graced wedding photo, along with the mention “for your eyes only.” The recipient nonetheless copied and pasted the photo to his Instagram account, and the *Esquire.com* page showed the photo through an in-line link to the Instagram page. The source copy, on the Instagram page, is infringing, because Otto’s friend posted it without permission. Without the server rule, *Esquire.com* is infringing, too, because its link publicly displays the image. But if *Esquire* does not know it has linked to an infringing source, § 512(d) will immunize it from liability for damages, and any injunctive relief would be limited to removing the link. Instagram, as the innocent host of the infringing photo, would enjoy the same liability limitations under § 512(c). The faithless friend, as the originator of the infringing post, would be liable for the full panoply of remedies, but may not be worth suing.

Now consider yet another version of the *Otto* story. This time, Otto has an Instagram account, to which he posts his wedding photo. *Esquire.com* embeds a link to the photo on Otto’s page. *Esquire.com* now is linking to an authorized source; § 512(d) does not apply. Similarly, § 512(c) does not shield *Esquire.com* from liability because *Esquire* itself placed the infringing embed on the *Esquire.com* site; the link did not follow “the direction of [a third-party] user.”²²⁸ Without the server rule, *Esquire.com* is an infringer (assuming no fair use): the unauthorized showing of others’ content through embedding or framing results in *prima facie* liability for infringement, even though the source site lawfully reproduced and displayed the content. The key term here, however, is “unauthorized.” We now turn to mass means

225. 17 U.S.C. § 512(d).

226. See *infra* Section IV.A (discussing the express license defense).

227. See *supra* notes 12–16 and accompanying text.

228. 17 U.S.C. § 512(c).

of authorizing the further communication of content on the Internet through embedding and framing.

A. EXPRESS LICENSE

Perhaps one of the most salutary impacts of the potential abandonment of the server rule would be the empowerment of copyright owners who post their content on the Internet to choose how that content is disseminated across the Internet. The copyright owner will be able to post content online, accompanied by either an express reservation of rights (which, technically, would be superfluous in a post-server rule regime) or an express license which authorizes all or only certain kinds of Internet users to embed the content in general, or only in designated ways. Accordingly, the copyright owner will be able to tailor the extent of the display right license—specifying, for example, that only noncommercial sites may embed the content, or that all embedding is permitted as long as the embedding site includes attribution to the work’s owner.²²⁹ A licensing system similar to Creative Commons licenses²³⁰—adjusted to suit the needs of licensors and licensees of the display right (including authorizations to embed)—may help copyright owners choose between different licensing options for the content they post to their websites.²³¹

That individual copyright owners would publish their works through stand-alone blogs or personal websites may, however, seem archaic and irrelevant to today’s Internet landscape. It is far more common in the current era for works to appear initially through uploads to the large Internet platforms, like social media platforms, image hosting platforms,²³² and “social news” platforms, which dominate much of today’s online activity.²³³ There are, of course, substantial channels of media on the

229. In a post-server rule world, Getty’s attempt to limit its embedding function to non-commercial uses would operate exactly as intended. *See supra* note 100 (discussing Getty Images’ “embed” function and noting that Getty’s Terms of Service limit the use of this feature to noncommercial uses).

230. *See Licensing Types*, CREATIVE COMMONS, <https://perma.cc/96Q3-R88E> (last visited Jan. 10, 2019).

231. One early commentator made a similar suggestion: “[A] simple web-wide solution to resolve several of the problems associated with unwelcomed web-linking would be to create a new icon, perhaps that of a traffic light to be placed on the home page, selected pages, or all pages of a target site. If the lamp lit on the depicted traffic light were red, the indication would be that the owner of the web page had not granted permission to link to or frame that page. A yellow light would indicate that the owner had granted some sites permission to link to or frame the page. Also, clicking on the yellow-lighted icon could produce a list of those sites, perhaps in the form of reciprocal links. A green light would show that the page’s owner has granted everyone on the Web a license to link to or frame that page.” *See* Walter A. Effross, *Withdrawal of the Reference: Rights, Rules, and Remedies for Unwelcomed Web-Linking*, 49 S.C. L. REV. 651, 692 (1998).

232. *See, e.g.*, IMGUR, <https://perma.cc/UN6D-HD4M> (last visited Jan. 26, 2019); Jenna Wortham, *Imgur, the Image-Sharing Site, Raises \$40 Million From Andreessen Horowitz*, N.Y. TIMES (Apr. 3, 2014), <https://perma.cc/AM6H-G9QV> (“If you spend any measurable amount of time on the Internet, you’ve likely visited—or at least looked at—an image hosted on Imgur . . .”).

233. *See supra* note 32 (noting the increasing proportion of aggregate Internet traffic that takes place on platforms controlled by a handful of dominant technology companies).

Internet that remain separate from these platforms (e.g. news websites²³⁴) which will, like the “blog” in our outdated example, be able to fashion their own licensing terms.²³⁵ But for a large portion of the content that circulates on the Internet, online platforms will likely be the first channel through which creators and copyright owners place their works onto the Internet.

One can expect that these platforms will design Terms of Service contracts which will govern the linking permissions of the user-generated content uploaded to the platform by requiring users to agree expressly to a limited waiver of their rights of public display and performance on-platform.²³⁶ At a minimum, these Terms of Service would authorize intranetwork content sharing to expressly authorize platform users to “like,” “share,” or “retweet” content within the platform, and would likely also authorize automated platform sharing such that the platform algorithms are expressly authorized to generate new displays of user-provided content in platform features like newsfeeds.²³⁷ Some platforms already utilize broad language in their Terms of Service which could be interpreted to permit on-platform (or even off-platform) public displays of user-uploaded content. For example, while Twitter’s Terms of Service make clear that users “retain [their] rights to any Content [they] submit, post or display on or through” the platform, the Terms of Service also state:

By submitting, posting or displaying Content on or through the Services, you grant us a worldwide, non-exclusive, royalty-free license (with the right to sublicense) to use, copy, reproduce, process, adapt, modify, publish, transmit, display and distribute such Content in any and all media or distribution methods (now known or later developed). This license authorizes us to make your Content available to the rest of the world and to let others do the same.²³⁸

One potentially problematic issue with the language of Twitter’s Terms of Service is that, while it clearly grants broad rights to the *platform*, it does not grant any rights to the *users* of the platform.²³⁹ In order for on-platform “sharing” to be sufficiently

234. See *supra* note 99 (noting the explicit prohibition of in-line linking or framing in the *New York Times* website’s Terms of Service).

235. See, e.g., *supra* note 100 (discussing the Getty Images embed tool and its restriction to noncommercial uses).

236. Mihajlo Babovic, *The Emperor’s New Digital Clothes: The Illusion of Copyright Rights in Social Media*, 6 CYBARIS 138, 158 (2015) (“Terms of Service, also referred to as Terms of Use or Terms and Conditions, are a series of rules or conditions one must agree to in order to use a web service.”). See *infra* notes 253–255 and accompanying text (arguing that the Terms of Service will likely only require users to waive a limited set of rights, only to the extent necessary to enable the platform to function).

237. See *supra* notes 118–120, 121 (discussing intranetwork sharing and automated sharing). Note, however, that these Terms of Service could not provide the requisite authorization if the shared content is placed on the platform without authorization from the relevant copyright owner. In these scenarios, however, the DMCA’s safe harbor provisions will nonetheless shield platforms and intranetwork sharers from strict liability infringement claims. See *supra* Part III.

238. *Terms of Service*, TWITTER, <https://perma.cc/BK7D-FYC3> (last visited Jan. 19, 2019).

239. Facebook’s Terms of Service, which contains similar language to the Twitter Terms of Service, may contain the same flaw. See *Terms of Service* § 3.1, FACEBOOK, <https://perma.cc/2T84-Y39B> (last updated Apr. 19, 2018) (“[W]hen you share, post, or upload content that is covered by intellectual property rights (like photos or videos) on or in connection with our Products, you grant us a non-exclusive, transferable, sub-licensable, royalty-free, and worldwide license to host, use, distribute, modify, run, copy,

protected by an express license defense, the Terms of Service must grant rights to all users of the platform who may “share” a user’s content (thereby committing an act of public display or performance).

While Twitter’s Terms of Service does grant Twitter the “right to sublicense,” courts have held that this provision does not result in the automatic “pass-through” of rights from Twitter to Twitter users. In *Agence France Presse v. Morel*, Morel, the plaintiff and copyright owner, had posted his photographs to Twitter under the same Terms of Service provisions quoted above.²⁴⁰ Agence France Press (“AFP”), an international news agency and the operator of an online photo database, copied Morel’s photographs and marketed them to “numerous third-party news agencies.”²⁴¹ When the plaintiff sued AFP for copyright infringement, AFP argued that Morel had authorized its use of the photographs when Morel assented to the Twitter Terms of Service.²⁴² The court held that the language in Twitter’s Terms of Service did not constitute a grant of any rights to AFP, because it was not a “partner” of Twitter.²⁴³ In other words, Twitter’s Terms of Service, as written, granted rights only to Twitter and the “partners” to whom it had expressly extended those rights through sublicense—those rights did not automatically “pass-through” to third-parties.²⁴⁴

We expect, however, that platforms will be able to redraft their Terms of Service to clarify that, when users upload copyrighted content to platforms, they grant rights to both the platform and platform users. Platforms which offer third-party users—who are not necessarily registered “users” of the platform—mechanisms to embed uploaded platform content on websites outside the platform will also have to draft their Terms of Service to include provisions that specifically grant all parties the right to display that content through those mechanisms. YouTube, one such service, already includes such a provision in its Terms of Service:

[B]y submitting Content to YouTube, you hereby grant YouTube a worldwide, non-exclusive, royalty-free, sublicenseable and transferable license to use, reproduce, distribute, prepare derivative works of, display, and perform the Content in connection with the Service and YouTube’s (and its successors’ and affiliates’) business, . . . You also hereby grant each *user of the Service* a non-exclusive license to access your

publicly perform or display, translate, and create derivative works of your content. . . . This means, for example, that if you share a photo on Facebook, you give us permission to store, copy, and share it with others . . . such as service providers that support our service or other Facebook Products you use.”). See also Seiden & Norton, *supra* note 113, at 58 (“While [the Snapchat Terms of Use] provide the *right* to Snapchat itself to sublicense content, they include no explicit *grant* of any sublicense to other third parties . . .”). See *Terms of Service*, pt. 3, SNAP INC., <https://perma.cc/5PUW-4BAP> (last updated Sept. 26, 2017), for the relevant language.

240. *Agence France Presse v. Morel*, 769 F. Supp. 2d 295, 299, 302 (S.D.N.Y. 2011).

241. *Id.* at 300.

242. *Id.* at 302.

243. *Id.* at 303 (citations omitted).

244. The court also rejected AFP’s argument that it was a third-party beneficiary of the Twitter Terms of Service, noting that, as a matter of California law, a party is only a third-party beneficiary if the contracting parties “intended to benefit that individual, an intent which must appear in the terms of the agreement.” *Id.* (citations omitted).

Content through the Service, and to use, reproduce, distribute, display and perform such Content as *permitted through the functionality of the Service* and under these Terms of Service.²⁴⁵

Vimeo, another video hosting platform which allows nonusers to embed user-uploaded content onto third-party websites, includes similar language in its Terms of Service:

By submitting a video, you grant Vimeo and its affiliates a limited, worldwide, non-exclusive, royalty-free license and right to copy, transmit, distribute, publicly perform and display (through all media now known or hereafter created), and make derivative works from your video for the purpose of . . . (ii) *displaying the video on third party websites and applications through a video embed or Vimeo's API* subject to your video privacy choices; (iii) *allowing other users to play, download, and embed on third party websites the video*, subject to your video privacy choices.²⁴⁶

These broad Terms of Service—which grant a wide array of rights to an unspecified and potentially infinite group of individuals—may seem problematic as a matter of traditional contract doctrine, which generally requires “a bargain in which there is a manifestation of *mutual* assent to the exchange and a consideration.”²⁴⁷ Because such Terms of Service are essentially the grant of “unilateral permission,” and not a “bargained-for exchange,” they might not operate as enforceable contracts on which users can rely when sued for copyright infringement.²⁴⁸ But some commentators have noted that these unilateral grants of permission may be enforceable as a noncontractual license:²⁴⁹ a “means by which titleholders relieve selected others” of the “in rem duties of noninterference [with property]” and “permit them to participate in . . . the use of . . . resources to which the licensor continues to retain title.”²⁵⁰ Without such a theory of license enforceability, the concepts of open-

245. *Terms of Service* § 6.C, YOUTUBE (May 25, 2018), <https://perma.cc/G95Z-GSQ6> [hereinafter *YouTube Terms of Service*] (emphasis added).

246. *Terms of Service*, VIMEO, <https://perma.cc/9JMK-EEDB> (last updated Oct. 6, 2017) (emphasis added).

247. RESTATEMENT (SECOND) OF CONTRACTS § 17(1). Some commentators have suggested that nonparties to a Terms of Service agreement, like social media users or like the defendants in *Morel*, could attempt to rely on those contracts by claiming third-party beneficiary status. See Seiden & Norton, *supra* note 113, at 59. However, under traditional contract doctrine, a party cannot claim to be a third-party beneficiary unless it can show that the contract provision at issue was for its “direct[] benefit,” or that the “facts and circumstances surrounding the transaction . . . show clearly that [a] particular person . . . is the beneficiary” of the contract. 13 WILLISTON ON CONTRACTS § 37:29 (citations omitted). We are doubtful that the third-party beneficiary doctrine could transform platform Terms of Service into a broad grant of rights to an unspecified and ever increasing class of social media users. See also *supra* note 244 (noting that the court in *Morel* rejected the application of the third-party beneficiary doctrine).

248. See Christopher M. Newman, *A License Is Not a ‘Contract Not To Sue’: Disentangling Property and Contract in the Law of Copyright Licenses*, 98 IOWA L. REV. 1101, 1104 (2013).

249. *License*, BLACK’S LAW DICTIONARY (8th ed. 2004) (defining “license” as “permission, [usually] revocable, to commit some act that would otherwise be unlawful”).

250. *Id.* (arguing that such a “license is not a contract,” and that “[t]he concept of license . . . belongs fundamentally to property, not contract”). See also Hersh R. Reddy, *Jacobsen v. Katzer: The Federal Circuit Weighs in on the Enforceability of Free and Open Source Software Licenses*, 307 (2009)

source or Creative Commons licenses, through which “copyright owners . . . create irrevocable, nonexclusive licenses by unilateral deed,” would fail to function as intended.²⁵¹ Recent court decisions affirming the enforceability of open-source licenses support the view that these unilateral grants of permission are enforceable.²⁵²

While this view of Terms of Service as unilateral licenses may enable platforms to require uploading copyright owners to waive their rights entirely in exchange for hosting uploaded content on the platform (suppose, for example, a Creative Commons-based platform on which all uploaded content must be subject to an Attribution or “CC BY” license²⁵³), we expect that platforms will require a more limited waiver of the rights of reproduction, display, or performance only to the extent necessary to allow the platforms to function.²⁵⁴ Platforms will have little to gain from drafting Terms of Service which include licenses to users of other platforms (or internet users generally) to utilize uploaded works in ways that have no connection to the platform’s mechanisms. As a result, the express license defense will likely apply only to claims arising from activity enabled by a social media platform, like intranetwork sharing or off-platform sharing.²⁵⁵ Accordingly, platform Terms of Service might not provide any legal cover for social media users who “jump” content between platforms. For example, if a Twitter user uploads her photograph to her Twitter feed through a “public” tweet (thus making it available for public viewing on the Twitter platform), and a Facebook user subsequently posts that photograph on Facebook (either by embedding a link to the original post or by

(“Copyright licenses are not always contracts. A license is merely the unilateral permission to do something.”).

251. Newman, *supra* note 248, at 1110; Reddy, *supra* note 250, at 308 (“Open source licenses are a special type of copyright license that generally grant the licensee a nonexclusive right to use the copyrighted material, subject to specific obligations.”).

252. See *Jacobsen v. Katzer*, 535 F.3d 1373 (Fed. Cir. 2008) (affirming “the ability of a copyright holder to dedicate [a] certain work to free public use and yet enforce an ‘open source’ copyright license to control the future distribution and modification of that work”). Since *Katzer*, courts have uniformly upheld—or accepted without analysis—unilateral licenses like the Creative Commons license. See *Philpot v. New Orleans Tourism Mktg. Corp.*, No. CV 18-9087, 2019 WL 142295, at *5 (E.D. La. Jan. 9, 2019); *Philpot v. LM Commc’ns II of S.C., Inc.*, No. 5:17-CV-173-CHB, 2018 WL 3371038, at *7 (E.D. Ky. July 10, 2018); *Philpot v. Music Times LLC*, No. 16CV1277 (DLC) (DF), 2017 WL 9538900, at *7 (S.D.N.Y. Mar. 29, 2017), *report and recommendation adopted*, No. 16CV1277 (DLC), 2017 WL 1906902 (S.D.N.Y. May 9, 2017); *Lasica v. Am. Online, Inc.*, No. CV 15-4230-GW(FMX), 2015 WL 12791494, at *3 (C.D. Cal. Oct. 8, 2015); *Drauglis v. Kappa Map Grp., LLC*, 128 F. Supp. 3d 46, 52 (D.D.C. 2015).

253. See *About the Licenses*, CREATIVE COMMONS, <https://perma.cc/B3YC-54BZ> (last visited Jan. 26, 2019).

254. See, e.g., *Youtube Terms of Service* § 6.C (granting YouTube a “worldwide, non-exclusive, royalty-free, sublicensable and transferable license to use, reproduce, distribute, prepare derivative works of, display, and perform [user-uploaded] content in connection with the [YouTube] Service and YouTube’s . . . business . . .”) (emphasis added).

255. See *supra* notes 118–124 and accompanying text (describing intranetwork sharing and off-platform sharing). In other words, it is unlikely that the defendants in *Morel*—a news agency which pulled an image from a social media network and marketed and distributed the image to other news agencies without the authorization of the copyright owner—would ever successfully defend against an infringement claim by relying on an express license defense based on a platform Terms of Service license to which the copyright owner agreed.

downloading and re-uploading the image), the Facebook user would be unable to establish an express license defense based on the Twitter Terms of Service. Further, because § 512(d)'s safe harbor would not apply to the Facebook user (as he has either linked to an authorized source or reproduced the image), that user would be subject to a direct infringement suit.²⁵⁶ The copyright owner may either sue the Facebook user who “jumped” her content from Twitter to Facebook,²⁵⁷ or, far more likely, may go directly to the Facebook platform with a takedown notice.²⁵⁸

Therefore, it seems likely that platforms can (and will) utilize Terms of Service agreements that are sufficiently broad to protect themselves and their users from infringement claims based on user “sharing” of platform content through platform mechanisms.

B. IMPLIED LICENSE

There are fact patterns, however, to which neither the express license defense, nor the DMCA's safe harbor defenses, will apply. First, neither defense will apply if a defendant embeds content from a source website (for example, a freestanding blog, not a social media platform) on which the copyright owner placed the content alongside an express reservation of rights (that is, expressly forbidding others from “display[ing] (including framing and inline linking)” the content on other

256. If, on the other hand, the original Twitter user was not authorized to upload the photograph, then a Facebook user who subsequently posts the photograph to Facebook via an in-line link will be eligible to claim safe harbor under § 512(d) for “referring users to an online location [like the Twitter post] containing infringing material.” 17 U.S.C. § 512(d) (2019).

257. A suit against the Facebook user may be unlikely unless that user has deep pockets or the copyright owner has some other motive for bringing suit against that user. See Klaris & Bedat, *supra* note 125 (noting that plaintiffs have brought defamation claims against social media users for sharing or retweeting defamatory posts).

258. Nonetheless, agreements between social media platforms could immunize users of each platform from copyright liability arising from the transfer of content from one platform to another. If, for example, multiple platforms are owned by the same corporation, the platforms may execute a sublicensing agreement under which the rights granted to each platform by their respective users under the platforms' Terms of Service agreements are transferred to the other platform. See Richard Blumenthal & Tim Wu, *What the Microsoft Antitrust Case Taught Us*, N.Y. TIMES (May 18, 2018), <https://perma.cc/NJ6D-SL7F> (“Facebook bought its most obvious competitors, Instagram and WhatsApp, and continues to acquire upstart companies before they can reach that point.”). While these sublicensing agreements would help copyright owners distribute their works to large audiences (that is, a post on one platform could enable and permit the dissemination of the post across multiple platforms), these agreements could exacerbate the already problematic concentration of online power in the hands of a handful of technology companies. See Cuthbertson, *supra* note 32 (noting the high degree of concentration of global Internet traffic on services owned and controlled by Facebook, Google, and Amazon). Other less deleterious potential partnerships might include partnerships between social media or social news platforms and image hosting sites like Imgur. See Wortham, *supra* note 232 (describing Imgur). Some social media and social news platforms rely on image hosting sites to host images which users can then link to on social platforms. See Max Woolf, *The Decline of Imgur on Reddit and the Rise of Reddit's Native Image Hosting*, MIMIMAXIR (June 20, 2017), <https://perma.cc/9GD8-N23R> (noting the close relationship between Reddit and Imgur). In a post-server rule world, express sublicensing agreements between these various platforms may become increasingly necessary.

websites).²⁵⁹ In such a case, the embedder has linked to an authorized source containing no “infringing material,” thus disqualifying her from a DMCA safe harbor defense,²⁶⁰ and the embedder has not obtained express permission from the copyright holder for her public display or performance of the content. This fact pattern thus demonstrates one of the key practical effects of the potential reversal of the server rule: copyright owners may, at least in theory, post their works to websites and expressly reserve their rights of public display, and may, again, in theory, bring strict-liability copyright infringement actions against Internet users or websites which nevertheless embed their works onto other websites. Under the server rule, of course, copyright owners in this situation would be entirely without a remedy.²⁶¹

Second, neither the express license nor the DMCA’s safe harbor defenses will apply if a defendant embeds content from a source website (for example, a blog) on which the content was placed by the copyright owner, *without* an express reservation of rights or any other language addressing copyright permissions. Under these limited circumstances, the embedder will have to rely entirely on an implied license defense.

A nonexclusive copyright license “may . . . be granted orally, or may even be implied from conduct.”²⁶² While the traditional formulation of the implied license defense in copyright cases would not apply in the hyperlinking context,²⁶³ some courts have recognized the existence of an implied license based on “any conduct on [the part of the copyright owner] exhibited to another, from which that other may properly infer that the owner consents to his use of the [work].”²⁶⁴ Courts have further recognized that “consent given in the form of mere permission or lack of objection is also equivalent to a nonexclusive license and is not required to be in writing.”²⁶⁵

Because most site owners have “the capability of blocking links,” an “implied license to [provide a simple reference] link may be inferred” from a site owner’s

259. *Terms of Service* § 2.2, N.Y. TIMES (Jan. 3, 2019), <https://perma.cc/2CC5-VL6K>.

260. As noted above, if such an actor places the infringing link on a platform, § 512(c) will immunize the platform from copyright liability only if the platform cooperates with take-down requests. *See supra* Section III.E. Therefore, the platform’s strong incentive to remove infringing embed links after users place those links on the platform will, as a practical matter, protect platform users from infringement suits.

261. *See supra* note 19 and accompanying text (explaining that, under the server rule, embedding content without authorization from a website on which that content appears with authorization can be neither an act of direct infringement nor an act of secondary infringement).

262. 3 MELVILLE NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 10.03[A][7] (2006).

263. The traditional formulation of the implied license defense applies “when (1) a person (the putative licensee) requests the creation of a work, (2) the creator (the licensor) makes that particular work and delivers it to the licensee who requested it, and (3) the licensor intends that the licensee copy and distribute his work.” *Nelson-Salabes, Inc. v. Morningside Dev.* 284 F.3d 505, 514 (4th Cir. 2002) (citation omitted). *See also* *Effects Assocs., Inc. v. Cohen*, 908 F.2d 555, 558–59 (9th Cir. 1990) (affirming the district court’s finding of an implied license when plaintiff “created a work at defendant’s request and handed it over, intending that defendant copy and distribute it”).

264. *De Forest Radio Tel. & Tel. Co. v. United States*, 273 U.S. 236, 241 (1927) (granting an implied license in the patent context). *See also* *Interscope Records v. Time Warner, Inc.*, No. CV 10-1662 SVN (PJWx), 2010 WL 11505708, at *3 (C.D. Cal. June 28, 2010) (citing *De Forest* in the copyright context).

265. *I.A.E., Inc. v. Shaver*, 74 F.3d 768, 775 (7th Cir. 1996). *See also* *Keane Dealer Servs. v. Harts*, 968 F. Supp. 944, 947 (S.D.N.Y. 1996) (citing this language from *Shaver*).

choice “not to exercise this capability.”²⁶⁶ Some commentators have gone further, arguing that by “posting images on [a] Website, [the owner of those images] authorize[s] other Web users to reference [this] material”²⁶⁷—arguing, essentially, for an implied right to embed content posted without contractual or technical restriction on the internet via in-line links.²⁶⁸ Under this argument, a platform or user sued for embedding content from an authorized source site which contained no language addressing copyright rights may escape liability through an implied license defense.²⁶⁹

1. Implied License to Embed

While there is little direct judicial support for an implied license to embed, some caselaw indicates that when website operators decline to avail themselves of well-known technical measures to prevent online copyright infringement, courts might imply a license. In *Field v. Google*, a plaintiff (Field) sued Google for the unauthorized reproduction of the copyrighted content on his website that resulted from Google’s automatic caching of his website through its “Googlebot” web crawler.²⁷⁰ As part of the process of “catalog[ing] [] Web pages into Google’s searchable Web index,” Google’s bot “makes . . . a copy of each Web page that [its web crawler] finds, and stores the HTML code from those pages in a temporary

266. Carole E. Handler & Craig A. Guthery, *Cyberspace Licensing: Linking, Framing, and Caching*, 3 CYBERSPACE L. (Dec. 1998). Because reference links do not infringe, no implied license is required. But inferring from the mere making available of content on the Internet consent to provide a reference link sets up the first step to inferring a broader authorization.

267. Brad M. Scheller, *Hey, Keep Your Link to Yourself—Legal Challenges to Thumbnails and Inline Linking on the Web and the Potential Implications of a First Impression Decision in Kelly v. Arriba Soft Corp.*, 10 JEFFREY S. MOORAD SPORTS L.J. 415, 452 (2003); Link Law On The Internet: A Panel Discussion, in 38 IDEA 197, 226 (1998) (“Mike Godwin: ‘. . . is there an implied license to link?’ Mark B. Harrison: ‘Well, the answer is that there probably is an implied license to link. But if you do a hyper frame link . . . is that a breach of that implied license?’ Mike Godwin: ‘Yes, that is correct. The threshold is that you can link, but what you do with the link affects your liability.’”).

268. See Scheller, *supra* note 267, at 452; Nicole M. Bond, *Linking and Framing on the Internet: Liability Under Trademark and Copyright Law*, 11 DEPAUL BUS. L.J. 185, 213–14 (1998) (suggesting the argument that “[b]y making their sites available in the absence of any use-restrictions, [website operators] have effectively granted an implied license to any other Web site operator to use hyperlinks and frame technology,” but rejecting this argument).

269. Of course, any inclusion on the source website of language relating to copyright permissions is likely to “knock out” the implied license defense. Tucker, *supra* note 176, at 37 (“If, however, the linked site expressly prohibits linking without authorization, the implied license may be lost.”); Effross, *supra* note 231, at 693 (noting that “the presence of [an] icon [indicating the level of linking permission the site owner intends to grant] would eliminate any argument that the creator of a site had granted an implied license to link”).

270. *Field v. Google*, 412 F. Supp. 2d 1106, 1110 (D. Nev. 2006). See also *Parker v. Yahoo!, Inc.*, No. 07-2757, 2008 WL 4410095, at *4 (E.D. Pa. 2008) (holding that a copyright owner knowing that “as a result of his failure to abide by [defendant] search engines’ procedures” constitutes “silence” sufficient to justify the inference that the copyright owner “knew of and encouraged the search engines’ activity, and, as did the defendants in *Field*, [defendant search engines] could reasonably interpret [plaintiff’s] conduct to be a grant of a license for that use.”) (citing *Field*, 412 F. Supp. 2d at 1116).

repository called a cache.”²⁷¹ Website owners can “opt-out” of Google’s search algorithm by using a “set of widely recognized and well-publicized industry standard protocols by which Web site owners can automatically communicate their preferences to search engines,” thus preventing this automatic caching.²⁷² By placing a “meta-tag” in the HTML code that comprises a webpage, the webpage owner can instruct Google’s algorithm not to create a cached copy of that webpage using the “no-archive” meta-tag.²⁷³

In an attempt to “manufacture a claim for copyright infringement against Google in the hopes of making money from Google’s standard practice,” Field declined to include such a meta-tag on his website, and sued Google when its algorithm created a cached copy.²⁷⁴ The court rejected Field’s claim of copyright infringement on multiple grounds, including implied license, estoppel, fair use, and safe harbor under the DMCA.²⁷⁵ When considering Google’s implied license defense, the court noted that because Field was “aware of the industry standard mechanisms” for preventing Google’s automatic caching and had nonetheless “made a conscious decision to permit [caching],” his conduct is “reasonably interpreted as the grant of a license to Google for that use.”²⁷⁶

Under similar logic, one could plausibly argue that, by declining to take advantage of well-established available mechanisms for preventing third-party sites from in-line linking to content on a source site,²⁷⁷ a copyright owner has granted an implied license for others to embed that content on their websites. While, in a post-server rule world, the effect of such an implied license would shield many online actors from new claims of copyright infringement via hyperlinking, the construction of such an implied license is problematic for a number of reasons.

2. Problems with Implied License

An implied license to embed would necessarily be based on the assumption that by placing content on the internet without restriction, the copyright owner *intended* to grant others the right to freely embed that content: a “showing of intent is always essential” to the defense of implied license.²⁷⁸ In other words, the implied license defense, in this context, rests on the argument that, based on “evidence regarding actual web practices,”²⁷⁹ the implication of posting content without restriction is an

271. *Field*, 412 F. Supp. 2d at 1110.

272. *Id.* at 1112.

273. *Id.*

274. *Id.* at 1113–14.

275. *Id.* at 1114–25.

276. *Id.* at 1116.

277. *See supra* note 99 (discussing the technical measures available to prevent in-line linking).

278. 2 PATRY ON COPYRIGHT § 5:131 (citing *Murphy v. Lazarev*, 589 F. App’x. 757, 765 (6th Cir. 2014)).

279. Mark Sableman, *Link Law Revisited: Internet Linking Law at Five Years*, 16 BERKELEY TECH. L.J. 1273, 1330–31 (2001) (recognizing the argument that “web traditions and practices have given rise to an implied license to link,” but arguing that “implied license” theories “may be dependent on the evidence regarding actual web practices”).

effective invitation and “encourage[ment]”²⁸⁰ of in-line linking. However, even if a defendant could establish that most Internet users *expect* their content to be embedded via hyperlink without restriction,²⁸¹ implying a license on that basis seems problematic because those expectations are likely influenced by the widespread prevalence of the server rule between 2007 and 2017. Even if the ordinary Internet user is entirely ignorant of the Ninth Circuit’s decision in *Perfect 10 v. Amazon*, or of the server rule itself, one can safely assume that the ordinary Internet user’s expectations about what Internet practices are permitted under U.S. intellectual property law have been indirectly influenced by online services that clearly rely on the assumption that embedding images from third-party websites without permission does not give rise to legal liability.²⁸² It may seem problematic for a court to adopt such an implied license to embed based on these circular expectations if courts should ultimately reject the server rule that underpinned those expectations.²⁸³

A judicially-created implied right to embed poses yet another problem: defining the scope of such a license. Even when courts find that implied licenses exist, they often pay careful attention to defining the scope of the implied license so that it is consistent with the expectations and conduct on which the existence of that implied license relies.²⁸⁴ And the boundaries of an implied license to embed may be difficult to determine. For example, even if a court finds that the act of posting content to the Internet without restriction constitutes an invitation to embed that content on other websites, should that court also find that such an action invites the copyright owner’s

280. *Field*, 412 F. Supp. 2d at 1116 (noting that an implied license may be “inferred based on silence where the copyright owner knows of the use and *encourages it*”) (citing *Keane Dealer Servs. v. Harts*, 968 F. Supp. 944, 947 (S.D.N.Y. 1996)) (emphasis added); John S. Sieman, *Using the Implied License to Inject Common Sense into Digital Copyright*, 85 N.C. L. Rev. 885, 914 (2007) (describing the *Field* court’s formulation of the implied license doctrine as a “two-part knowledge and encouragement test”).

281. And that the non-use of technical measures which could prevent embedding constitutes the encouragement of in-line linking.

282. See, e.g., *supra* note 115 and accompanying text (noting that social media platforms have automated the creation of embedded links). Comments and blog posts by web designers from the years before and shortly after the Ninth Circuit’s adoption of the server rule often indicate that web designers frowned upon unauthorized in-line linking or “hotlinking” and recommended that “you should ask for the owner of the file’s permission before hotlinking.” *Hotlinking: What Is It, And Why Shouldn’t People Do It?*, PROWEBMASTERS (June 30, 2012), <https://perma.cc/FU23-JSZY>.

283. An approach to the implied license defense based entirely on user expectations may prove too much. Some evidence suggests that many Internet users believe that copyrighted images posted to the Internet are free to redisplay, reproduce, modify, and reuse without restriction. See *supra* notes 94–98 and accompanying text. Should courts attempt to imply licenses based purely on user expectations, they may end up implying broad licenses not only to publicly display and perform copyrighted works through in-line links, but to re-produce and modify those works. *But see Thornton v. J. Jargon Co.*, 580 F. Supp. 2d 1261, 1281–82 (M.D. Fla. 2008) (holding that the posting of a quiz on freely accessible webpage could not be construed as implied license to reproduce the contents of the quiz or placement of the quiz in the public domain).

284. See *Karlson v. Red Door Homes, LLC*, 611 F. App’x. 566, 569–70 (11th Cir. 2015) (“[C]ourts must focus on objective evidence revealing the intent of the parties both to determine whether an implied license exists and, if so, to determine the scope of that license.”).

competitors to embed that content in ways clearly designed to interfere with the copyright owner's business practices?²⁸⁵

Moreover, a judicially-created implied license to embed would effectively transform copyright (at least regarding the rights of public display and performance on the Internet) from an "opt-out"²⁸⁶ regime to an "opt-in" regime.²⁸⁷ Even if a court found it appropriate to shift the fundamental structure of the copyright framework (which, one might argue, should be a decision reserved for the legislature), adopting an implied license to embed, in effect, eviscerates most instances of the right online and creates a *de facto* formality which may run afoul of the Berne Convention's abolition of formalities as a prerequisite to the existence or enforcement of copyright protection.²⁸⁸

Before considering what the server rule's reversal could mean for authors, we summarize our conclusions regarding online actors' exposure to liability (not taking into account implied licenses or the fair use defense) in the following chart.

285. See, e.g., *supra* Section I.B (discussing the facts of *Leader's Inst., LLC v. Jackson*, No. 3:14-CV-3572-B, 2017 WL 5629514 (N.D. Tex. Nov. 22, 2017)).

286. An "opt-out" system is "one in which an individual must choose to be removed from participation in the system." Sieman, *supra* note 280, at 888. An "opt-in" system is "one where an individual must choose to participate in the system." *Id.* at 887.

287. Some commentators have noted that the expansion of *Field v. Google* to other contexts could effectively transform the copyright framework on the internet into an "opt-in" system. See, e.g., Sieman, *supra* note 280, at 915–16 (noting that a broad reading of *Field's* "knowledge" requirement, which would imply a license as a defense to infringement if the plaintiff has "constructive knowledge" of a well-known opt-out system like the one at issue in *Field*, "would go a long way to resolve the conflict between the opt-out Internet and the opt-in copyright system.").

288. See Berne Convention for the Protection of Literary and Artistic Works art. 5(2), Sept. 28, 1979, S. TREATY DOC. NO. 99-27 ("The enjoyment and the exercise of these rights shall not be subject to any formality . . ."); see also Berne Convention Implementation Act of 1988, Pub. L. No. 100-568, 102 Stat. 2853.

Figure 3: Post-Server Rule Liability Framework

Activity	Liability for the User (Under Server Rule)	Liability for the User (Without Server Rule)	Impact of Server Rule Reversal
<i>Linking on stand-alone sites</i>			
Embedded link to content on an infringing website (<i>Goldman v. Breitbart</i>)	Knowledge-based derivative liability only.	Safe harbor under § 512(d) unless disqualified (e.g. for non-compliance with takedown request).	No change (assuming compliance with takedown request)
Unauthorized embedded link to content on an authorized website ("hotlinking") (<i>Leader's Institute v. Jackson</i>)	No direct or secondary liability.	Direct liability (no § 512(d) or express license).	Direct liability
<i>Placing content on social media platforms (Content Sharing via Hyperlink)</i>			
Embedding content from an infringing outside website	Knowledge-based derivative liability only.	Safe harbor under § 512(d) unless disqualified (e.g. for non-compliance with takedown request).	No change (assuming compliance with takedown request)
Embedding content from an authorized outside website	No direct or secondary liability.	Direct liability (but platform likely to comply with § 512(c) takedown request)	Direct liability (but platform likely to takedown if requested)
<i>Sharing content within a social media platform (Intranetwork Sharing)</i>			
Sharing a post containing user-uploaded authorized content	No direct or secondary liability.	Express license based on platform Terms of Service.	No change
Sharing a post containing user-uploaded infringing content	Knowledge-based derivative liability only.	Safe harbor under § 512(d) unless disqualified (e.g. for non-compliance with takedown request).	No change (assuming compliance with takedown request)
<i>Displaying social media content outside the platform (Off-Platform Sharing)</i>			
Embedded link to authorized social media content (i.e. YouTube embed)	No direct or secondary liability.	Express license based on platform Terms of Service.	No change
Embedded link to infringing social media content (<i>Goldman v. Breitbart</i>)	Knowledge-based derivative liability only.	Safe harbor under § 512(d) unless disqualified (e.g. for non-compliance with takedown request).	No change (assuming compliance with takedown request)

V. CONCLUSION: WHAT DIFFERENCE DOES IT MAKE TO AUTHORS?

In Section II.A of this Article, we detailed the various ways in which the server rule causes economic harm to creators and content owners. In particular, creators urge that the rule has enabled platforms and commercial websites to free ride on others' creations without paying nor seeking permission for their exploitations; that it has allowed those companies to drive traffic away from the source sites in order to draw and retain users on the embedders' sites, thus depriving creators of advertising revenue and other benefits flowing from user visits to their sites; and that it has promoted expectations that content accessible on the Internet is or should be free.²⁸⁹ In the preceding sections of this Article, our analysis has shown that, once relevant defenses are taken into account, the reversal of the server rule will likely have minimal effects on commonplace online activities. In this concluding Part, we note how the repudiation of the server rule would diminish the value gap that results from the first two harms and could perhaps even alter widespread perceptions about the rights of creators in cyberspace.

First, the reversal of the server rule should impel technology companies who offer services which currently rely primarily on the free appropriation of copyrighted content either to modify their business models to avoid liability, or to take seriously the demands of creators and content owners to share their bounty. Search engines

289. See *supra* Section II.A.

and other web indexing and aggregation services will no longer be able to freely display full-sized images from around the Internet without authorization from copyright owners. As a result, some online services (like Google Image Search) will have to make adjustments to their user interfaces. On the other hand, online image search services will continue to utilize the fair use doctrine to create, store, and display thumbnail images and, accordingly, help their users find images in effectively the same way as they do today. The principal difference will be that these search engines will act as channels to source sites—that is, after showing the searching user a desirable thumbnail, the search engine will either have to obtain licenses or send the user to the source site to access the full-sized image—rather than providing “galleries” of full-sized images which eliminate any need for users to visit the source site.

Alternatively, technology companies that wish to continue offering their preexisting services without interruption may be forced to bargain with copyright owners—or, more realistically, the agencies or collectives who represent them—in order to structure licensing mechanisms (perhaps including micropayments platforms) to provide adequate compensation to right holders. As we have noted, under the server rule, technology companies had no reason to come to the bargaining table: the server rule’s effective exemption of online displays via hyperlinks enabled many technology companies to ignore the demands of right holders, retaining for themselves the commercial benefits arising from the exploitation of copyrighted works on the Internet. Even if the reversal of the server rule may not substantially affect the litigation posture of copyright owners—as platforms will continue to enjoy safe harbor under the DMCA, and the few individual actors who would be exposed to new strict liability claims may not be worth suing—we expect that, in a post-server rule world, the threat of liability, or the costs of compliance with repeated takedown notices, will encourage technology providers to take seriously the demands of copyright holders who seek fair remuneration for their works’ exploitation.²⁹⁰

Second, the reversal of the server rule will empower creators and content owners to utilize the Internet to disseminate their works without effectively exhausting their rights of public display, or having to resort to uncertain technical measures to fend off unauthorized embedders. Creators could restrict embedding entirely. Alternatively, creators could use services that limit third-party displays to noncommercial uses only and that further ensure that such displays carry attribution and licensing information. This would allow potential licensees to find copyright

290. Similarly, YouTube created its Content ID system—which provides a mechanism for copyright owners to benefit from the use of their works on YouTube—partially in response to the threat of liability which may have attached to the platform if it sought to earn advertising revenue targeted to the display of infringing works, which would disqualify the platform from DMCA safe harbor under 17 U.S.C. § 512(c)(1)(B). See, e.g., Taylor B. Bartholomew, *The Death of Fair Use in Cyberspace: YouTube and the Problem with Content ID*, 13 DUKE L. & TECH. REV. 66, 71–72 (2015) (noting that YouTube sought to “shield itself from liability from copyright owners and preserve[] its safe harbor under § 512(c)” by “implementing Content ID”).

owners and pay for licenses.²⁹¹ Moreover, because unauthorized embedding often obscures authorship attribution information,²⁹² a diminution in unauthorized embedding should preserve that information, thus increasing awareness of the authorship of embedded content. Authorship attribution enhances both reputation and, fame bringing fortune, prospects for remuneration. If anonymity assists unpaid appropriation,²⁹³ then associating authors with their works could help overcome the inculcated belief that anything on the Internet is free for the taking. More broadly, the more prevalent the requests for and means of payment, the more likely the norm may shift toward compensating creators. The increasing practice of putting content, particularly newspapers, behind paywalls already endeavors to reeducate,²⁹⁴ repudiation of the server rule would be consistent with the trend toward making the Internet a less hostile environment for authors who seek not only for their works to be read, heard, or viewed, but also to be remunerated for their public enjoyment.

While in many other instances application of the § 512(c) and (d) safe harbors will continue to relieve users and platforms from liability, the application of those sections would help redress free riding and diversion of traffic by providing authors and content owners a legal basis they currently lack to obtain the removal of unwanted embeds. As a result, websites that wish to populate their pages with third-party images or content without risk of takedown notices will choose between three legal options: (i) obtaining a license from the copyright holder,²⁹⁵ (ii) utilizing content from the multiple online services that connect web designers with licensed or public domain images,²⁹⁶ or (iii) supplying their own content.

The rebalancing, however, will still favor users and platforms: without the server rule, the safe harbor default that results from § 512(m)'s preclusion of a proactive general duty to monitor²⁹⁷ will, in most cases, permit framing and embedding to continue until the author fulfills her burden of notifying the platform or the individual embedder. The DMCA safe harbors thus shift the default from a user obligation to find and obtain copyright owners' permission (assuming no defenses), to a copyright owner duty to find and notify infringing users. Without the server rule, the DMCA burdens the author's exercise of her rights of display and public performance, but with the server rule, she would have no public display and performance rights to

291. Getty Images' Embed tool, which allows users to embed images from Getty's library through embed codes that create displays which, when clicked, lead back to Getty's website where the images can be licensed, may provide one example. See *Press Release: Getty Images Unveils Innovative Embed Feature for Sharing of Tens of Millions of Images*, CISION (Mar. 5, 2014), <https://perma.cc/LKLL2-82GD>; *supra* note 100.

292. See *supra* note 69 and accompanying text.

293. See *supra* notes 94–98.

294. See Alexis C. Madrigal, *Prepare for The New Paywall Era*, ATLANTIC, Nov. 30, 2017, <https://perma.cc/WB3D-NNHA>.

295. See, e.g., *supra* note 109 (noting that some online publications already seek permission before using social media posts in articles).

296. For example, the Photo Dropper tool provides an easy way for web designers to utilize Creative Commons-licensed images on their websites. *PhotoDropper WordPress Plugin—Blog Photos Made Easy*, <https://perma.cc/Z2N5-4M6E> (last visited Mar. 24, 2019).

297. See 17 U.S.C. § 512(m).

exercise in the social media and many other Internet contexts. And through the notice and takedown regime, the author can choose which frames or embeds to remove, likely leaving untouched the ones that either lack economic significance or work to her benefit. Recalibrating toward enforceable display rights thus enables authors to combat free riding and the deviation of traffic by limiting downstream public displays or performances.²⁹⁸

Third, the reversal of the server rule may chip away at the widespread belief that the Internet is a realm in which the intellectual property rules of the offline world do not apply. As we have shown, broad application of statutory safe harbors, the anticipated use of platform Terms of Service that will preempt the copyright framework within platform environments, and the practical difficulties of enforcing rights against mostly judgment-proof Internet users will most likely mean that the server rule's reversal will not result in a flood of strict liability claims against everyday Internet users. Nonetheless, we anticipate that the server rule's reversal may gradually, if indirectly, influence public recognition of intellectual property rights on the Internet. In other words, Internet users may perceive, over time, that the online services they use every day and perhaps take for granted will change—whether as a result of lawsuits from copyright owners or negotiated agreements with the agencies or collectives who represent them—in ways that signal that dominant technology companies are not exempt from the laws that govern the dissemination of works of authorship simply because they do business in cyberspace.

298. Of course, the notice-and-takedown system does not solve what commentators have termed the “whack-a-mole” problem: a “never-ending cycle of sending notices about infringing content to take down, only to reappear a short time later in a new location on the same website.” DEP’T OF COMMERCE INTERNET POLICY TASK FORCE, COPYRIGHT POLICY, CREATIVITY, AND INNOVATION IN THE DIGITAL ECONOMY 56 (2013). Moreover, some courts have taken a relaxed approach to the DMCA’s “expeditious” removal requirement, which may further undercut copyright owners’ ability to use the takedown process to protect their interests. *See supra* note 148 (citing cases interpreting the “expeditious” removal requirement).