THE SERVER TEST QUANDARY AND EMBEDDING PERMISSION CULTURE

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Abstract

The practice of embedding—inserting code that displays content located elsewhere on the Internet—is ubiquitous online. Millions of users insert or encounter embeds daily. Embedding has helped disseminate information far and wide, furthering the goals of both copyright law and the Internet.

Copyright law made the growth of embedding possible. For over a decade, embedding did not violate a copyright owner’s exclusive rights. The Ninth Circuit’s server test doctrine holds that a person only displays a work when he or she hosts and serves it. But the server test has recently come under siege. Three decisions from the U.S. District Court for the Southern District of New York rejected the server test. This emerging circuit split and a growing body of scholarship in support of overturning the server test threaten the clarity provided by the status quo and the future of embedding.

This Article first attempts to temper these movements to overturn the server test. The Ninth Circuit’s original legal rationales for adopting the server test are still valid. Policy considerations too suggest that the server test should have staying power to protect the common practice of embedding.

But what if the server test falls? Critically, judges and scholars alike have failed to introduce a viable alternative for protecting embedding. To fill this gap, this Article posits that a private ordering theory of permission-driven embedding will complement or substitute for the server test. Permission-driven embedding grants content creators greater control over how their works are embedded and prohibits embedding that is not permitted by the rights owner. This framework preserves the balance between protecting copyright owners’ exclusive rights and disseminating knowledge. In fact, permission-driven embedding is already here. Major social media platforms have already started to adopt this framework. Therefore, notwithstanding the server test’s prognosis, permission-driven embedding is part of the future of online content distribution.

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I. Introduction

At the end of 2019, professional tennis player Caroline Wozniacki retired from the sport. In the past, a former world number one player such as Wozniacki would have likely made her announcement at a press conference or on live television after her final match. But Wozniacki, reflecting the times, announced her retirement by posting to the popular social media platform Instagram. In her post, she included a photo of herself as a young girl wielding a tennis racquet and preparing to serve. As one of the most successful tennis players in history, Wozniacki’s retirement sent shockwaves through the sports world. In covering her retirement, news publishers embedded Wozniacki’s post in their articles, conveying the exact moment...
and timbre of her retirement by seamlessly inserting the post into their stories.1

Embedding copyrighted content has generally been considered lawful under a doctrine known as the server test, which holds that the entity hosting and serving copyright-infringing content is the one that publicly performs or displays that material, not the embedder.2 Embedding, also known as in-line linking, is the act of inserting a line of code that links to content served elsewhere online, causing the linked content to appear seamlessly on the embedder’s website even though it is stored on and served from another webpage.3 The server test was treated as the law of the land for embedding for over a decade.4 But a series of recent cases has shattered that understanding.5 Without the server test, embedding could potentially violate a copyright’s public performance and public display rights. This new reality has created uncertainty in some circuit courts about the lawfulness of embedding, a process practiced by and benefitting millions of users daily.6

The primary dispute with whether embedding implicates the public performance and public display rights has revolved around how embedding

2. Perfect 10, Inc. v. Amazon.com, Inc., 508 F.3d 1146, 1159–60 (9th Cir. 2007).
3. Id. at 1156.
6. See Nazer, supra note 4 (“[T]he ubiquitous practice of in-line linking . . . benefits millions of Internet users every day.”).
functions. Some scholars have argued that the use of these links transmits content publicly, constituting a public performance or display by the linking website. Others have instead concluded that the links merely direct users to the source of content, like roadmaps, and are thus non-infringing because the linked-to website ultimately makes the performance or display. The linked content will only appear so long as the hosting third party preserves it.

The server test took the latter approach, blessing embedding under copyright law. But the growing rift between courts endorsing and rejecting the server test has created uncertainty for both artists and others who would share their works. The ubiquitous practice of embedding could fall along with the server test that protects it.

This Article examines why embedding should be preserved and how to do so despite growing headwinds against the server test. Universal practice of embedding has created strong legal and policy reasons for maintaining the

7. See, e.g., Jane C. Ginsburg & Luke Ali Budiardjo, Liability for Providing Hyperlinks to Copyright-Infringing Content: International and Comparative Law Perspectives, 41 COLUM. J.L. & ARTS 153, 179 (2018) ("[The server test] relies on a restrictive definition of ‘transmit or otherwise communicate,’ which it reads to include only those ‘device[s] or process[es]’ which ‘cause infringing images to appear on the user’s screen,’ by pushing data from the server on which the work is stored to the user’s browser. The statutory definition of ‘to transmit,’ however, is not so constrained.” (footnote omitted)); Kimberlianne Podlas, Linking to Liability: When Linking to Leaked Movies, Scripts, and Television Shows Is Copyright Infringement, 6 HARV. J. SPORTS & ENT. L. 41, 74 (2015) ("Links transmit content, so links are performances or displays (or both) of that content."); see also Jie Lian, Twitters Beware: The Display and Performance Rights, 21 YALE J. & TECH. L. 41, 74 (2015) (concluding that the Copyright Act and its legislative history support a broad interpretation of the display and performance rights which places the server test on “weak footing”).

8. See, e.g., Lee Burgunder & Barry Floyd, The Future of Inline Web Designing After Perfect 10, 17 TEX. INT’L PROPR. L. J. 1, 23 (2008) (explaining that those who link to infringing copies “have really done nothing more than point to what those members illegally put out there for all to see”); Venkat Balasubramani, Judge Rakoff: Embedding Social Media Content Is a “Display” Under the Copyright Act, TECH. & MKTG. L. BLOG (Aug. 12, 2021), https://blog.ericgoldman.org/archives/2021/08/judge-rakoff-embedding-social-media-content-is-a-display-under-the-copyright-act.htm (comment by Eric Goldman) (“The server test recognizes that all the linking site does is provide a pointer to a third-party source.”). Jessica Litman has also noted that “[h]yperlinks are not copies, adaptations, distributions, performances, or displays of the sites they link to or the content those sites contain.” JESSICA D. LITMAN, DIGITAL COPYRIGHT 163 (2d ed. 2006).

9. See Jonathan Zitrain et al., Perma: Scoping and Addressing the Problem of Link and Reference Rot in Legal Citations, 127 HARV. L. REV. F. 176, 176 (2014) (“The link, a URL, points to a resource hosted by a third party. That resource will only survive so long as the third party preserves it.”).

server test. If the server test falls, the alternatives that have thus far been proposed are largely unavailing. Instead, this Article proposes a private ordering permission-driven model of embedding that provides creators with greater choices for whether and under which circumstances to permit embedding of their content.

As a threshold matter, the server test should be maintained. A sizeable number of courts across the U.S. have supported the server test.\(^\text{11}\) Only recently have courts started to reject it, and most of those rejections are limited to the Southern District of New York.\(^\text{12}\) The server test as adopted by the Ninth Circuit was not limited to the facts at hand; rather, it was a broader rule.\(^\text{13}\) Five rationales justified this rule.\(^\text{14}\) These rationales have not changed and continue to justify the server test. The server test has enabled a world that embraces embedding, and embedding is now ubiquitous online. In addition, copyright owners can choose when and how to share their works online. No other current legal theory would compensate for the server test and permit embedding to the same degree.

This Article posits that permission-driven embedding could fill the gap if the server test is overturned or complement the server test if it remains good law. Online platforms have started offering a range of options for users regarding how and under what circumstances others can embed their posted content. Permission-driven embedding is a private, platform-specific framework that would run in parallel to extant copyright doctrine. This framework strikes a balance between copyright owners preserving their rights and the public’s continued access to new works. Authors can select the platform on which to share their works based on the platform’s embedding permissions. This model of permission-driven embedding is already part of some of the largest platforms, and it will continue to percolate throughout the Internet. Regardless of the server test’s future, permission-driven embedding will become increasingly important as a dominant framework for artists and embedders alike.

Part II of this Article will examine the emerging circuit split between courts that have endorsed the server test and the modest but growing body of

\(^{11}\) See infra Sections II.B, II.C.
\(^{12}\) See infra Sections II.C, II.D.
\(^{13}\) See Perfect 10, 508 F.3d at 1159.
\(^{14}\) These five rationales were originally articulated in the Perfect 10 district court opinion. Perfect 10 v. Google, Inc., 416 F. Supp. 2d 828, 843–45 (C.D. Cal. 2006), aff’d in part, rev’d in part sub nom., Perfect 10, Inc. v. Amazon.com, Inc., 508 F.3d 1146 (9th Cir. 2007).
cases to have rejected it. Part III will then assert legal and policy rationales that suggest that the server test should remain the law.

Recognizing growing headwinds against the server test, the second half of this Article considers a world without it. Part IV discusses—and dismisses—three alternative defenses for embedding that have been advanced by courts and in the literature: the Digital Millennium Copyright Act, fair use, and implied licenses and sublicenses. Part V then examines the goals of copyright law and the Internet to propose permission-driven embedding. Finally, this Article examines how permission-driven embedding is already working by examining the embedding structures of four major online platforms and a key content owner. With or without the server test, permission-driven embedding will play an increasingly important role in the future.

II. The Birth of the Server Test and Its Growing Discontents

A. Perfect 10 v. Amazon

The Ninth Circuit first adopted the server test in 2007 in *Perfect 10, Inc. v. Amazon.com, Inc.* 15 In that case, Google’s image search function created thumbnail images and embedded full-size images. 16 Perfect 10, an adult content website and magazine, owned copyrights to some of these images. 17 The images at issue were not from Perfect 10’s website, which blocked the images behind a password-protected “members’ area,” but from other websites that had republished them without permission. 18

Google’s search engine automatically indexed the websites containing these infringing images and provided copied thumbnail versions and embedded full-sized images for users in their search results. 19 When a user clicked on the thumbnail, it would show the embedded, full-sized infringing image, which was stored on the owner’s website. 20 Google also had an agreement with Amazon for Amazon.com to embed Google’s search results, including both the thumbnails and the full-size images. 21 Perfect 10 filed suit against Google and Amazon for copyright infringement, alleging that they

15. 508 F.3d at 1159–60.
16. *Id.* at 1155, 1157.
17. *Id.* at 1157.
18. *Id.*
19. *Id.*
20. *Id.*
21. *Id.*
violated its exclusive rights to display and disseminate its copyrighted works under the Copyright Act.  

At the district court level, Google proposed what became known as the “server test.” Under this test, the technological “display” of an image is really the “serving” of content over the web. Therefore, the entity that displays a work online is who sends the computer code making up the image over the Internet to the user’s browser. In this case, the website that hosted and served the infringing images would be liable for embedding, not Google.

Perfect 10 rejected the server test and proposed its own “incorporation test,” which asks whether the defendant incorporated copyrighted content into its webpage, allowing visitors to see the copyrighted content. Under the incorporation test, the location of the stored content is immaterial for determining liability for infringing the display right.

The district court adopted the server test. It held that “the website on which content is stored and by which it is served directly to a user, not the website that in-line links to it, is the website that ‘displays’ the content.” The court cited five reasons for adopting the server test over the incorporation test. First, the test was based on how the technology functions, reflecting “the reality of how content actually travels over the internet before it is shown on users’ computers.” Second, it did not invite copyright-infringing activity, nor did it preclude contributory, inducement, or vicarious liability for such linking. Third, the test was clear to website operators, and courts could easily apply it. Fourth, copyright owners could pursue actions against the initial direct infringers. Without these original infringers, there would be no embedding of infringing content. Finally, the server test maintained a

22. Id.; see also 17 U.S.C. § 106 (listing the exclusive rights of a copyright owner).
24. Id.
25. Id.
26. Id.
27. Id.
28. See id.
29. Id. at 843.
30. Id.
31. Id.
32. Id. at 843–44.
33. Id. at 844.
34. Id.
35. See id.
balance between encouraging new creation of creative works and disseminating information.\textsuperscript{36}

Applying the test, the court held that Google’s embedding of the full-sized images did not constitute a display because third-party websites hosted and served the infringing content, not Google.\textsuperscript{37} The court also held that the server test applied to the distribution right because there was no “actual dissemination” because the hosting website, not Google, communicated the full-sized image to the user’s computer.\textsuperscript{38}

On appeal, the U.S. Court of Appeals for the Ninth Circuit affirmed the server test.\textsuperscript{39} The court explained that an image stored in a computer’s server is a copy of the work under the Copyright Act,\textsuperscript{40} and thus “a person displays a photographic image by using a computer to fill a computer screen with a copy of the photographic image fixed in the computer’s memory.”\textsuperscript{41} Under this definition of display, the Ninth Circuit upheld the server test. It held “that a computer owner that stores an image as electronic information and serves that electronic information directly to the user . . . is displaying the electronic information in violation of a copyright holder’s exclusive display right.”\textsuperscript{42} “Conversely, the owner of a computer that does not store and serve the electronic information to a user is not displaying that information, even if such owner in-line links to or frames the electronic information.”\textsuperscript{43}

Applying the server test, the Ninth Circuit reached the same conclusions as the district court.\textsuperscript{44} The court held that Google’s computers did not store the full-sized images, but instead created “HTML instructions that direct a user’s browser to a website publisher’s computer that stores the full-size photographic image. Providing these HTML instructions is not equivalent to showing a copy.”\textsuperscript{45} Like the district court, the Ninth Circuit understood that

\textsuperscript{36} Id.
\textsuperscript{37} Id. But Google did create and store the thumbnail images, so—applying the server test—the court reasoned that Google displayed the thumbnails. Id.
\textsuperscript{38} Id. at 844–45 (citing In re Napster, Inc. Copyright Litig. 377 F. Supp. 2d 796, 802–04 (N.D. Cal. 2005)).
\textsuperscript{39} Perfect 10, Inc. v. Amazon.com, Inc., 508 F.3d 1146, 1159–60 (9th Cir. 2007).
\textsuperscript{40} Id. at 1160 (citing MAI Sys. Corp. v. Peak Comput., Inc., 991 F.2d 511, 517–18 (9th Cir. 1993)).
\textsuperscript{41} Id.
\textsuperscript{42} Id. at 1159 (citing Perfect 10, 416 F. Supp. 2d at 843–45).
\textsuperscript{43} Id. (citing Perfect 10, 416 F. Supp. 2d at 843–45).
\textsuperscript{44} Id. at 1160.
\textsuperscript{45} Id. at 1161. But Google stored the thumbnail versions of Perfect 10’s copyrighted images, so its communication of those images to users constituted a prima facie case of infringement of Perfect 10’s display right. Id. at 1160. The court ultimately found that Google
“HTML instructions do not themselves cause infringing images to appear on the user’s computer screen. The HTML merely gives the address of the image to the user’s browser. The browser then interacts with the computer that stores the infringing image.” The Ninth Circuit also agreed with the district court that embedding did not implicate the distribution right. The hosting website distributed the photograph to a user’s computer, not the embedder.

Perfect 10 tried to argue that Google was leading consumers to believe that they were viewing the image on Google’s webpage rather than a third-party website’s page. But the court held that, unlike trademark law, copyright law does not look to consumer confusion as a basis for liability. Therefore, Google did not directly violate Perfect 10’s display right. However, the Ninth Circuit left the question of whether Google was contributorily liable for infringement open on remand. Perfect 10 endorsed the server test and established that embedding infringing images was not direct copyright infringement.

B. Ninth Circuit Precedent

Following the Ninth Circuit’s decision in Perfect 10, courts in the Ninth Circuit faithfully applied the server test. As the district court noted on remand in Perfect 10, “The server test is now binding Ninth Circuit precedent, and it is not within this Court’s power to revise it.” The Ninth Circuit and its district courts have followed the test ever since. The Ninth Circuit itself was not liable for infringement, however, because the thumbnail images constituted fair use.

46. Id. at 1168.
47. Id. at 1161.
48. Id. at 1162.
49. Id. at 1161.
50. Id. (citing 15 U.S.C. § 1114(1) as an example of consumer confusion liability under trademark law).
51. Id. at 1162.
52. Id. at 1172–73, 1177.
upheld the server test as recently as September 9, 2021.\textsuperscript{55} The Northern District of California upheld the server test as recently as February 1, 2022, even in the face of dissents in other circuits.\textsuperscript{56}

One slight exception to this trend was the Northern District of California’s decision in \textit{Free Speech Systems, LLC v. Menzel}.\textsuperscript{57} In that case, \textit{Free Speech Systems} (“FSS”) sought a declaratory judgment that it had not infringed the copyrights of photographer Peter Menzel.\textsuperscript{58} FSS operated InfoWars—a far-right website known for hawking conspiracy theories and fake news\textsuperscript{59}—which published a post that included nine of Menzel’s photos from his book, \textit{Hungry Planet: What the World Eats}.\textsuperscript{60} However, FSS argued that the photos were actually stored on naturalsoctiy.com and that its post “pointed” readers

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Amazon.com, Inc., No. 20-cv-00105, 2020 WL 3128534, at *6 (W.D. Wash. June 12, 2020) (“[T]he ‘making available’ right is neither supported by statute nor has it been embraced by the Ninth Circuit.”) (citing \textit{VHT}, 918 F.3d at 736 (9th Cir. 2019)); \textit{VHT}, 918 F.3d at 736 (“This theory presumes that the Copyright Act’s display right encompasses an exclusive right to ‘make available for display,’ a position neither supported by the statute nor embraced by this court.”) (citing \textit{Perfect 10}, 508 F.3d at 1160)); Goes Int’l, AB v. Dodur Ltd., No. 14-cv-05666, 2018 WL 2298631, at *11 (N.D. Cal. May 20, 2018) (“[A]n image stored on a computer or server is a ‘copy.’”) (citing \textit{Perfect 10}, 508 F.3d at 1160)); Synopsys, Inc. v. Ubiquiti Networks, Inc., No. 17-cv-00561, 2018 WL 577941, at *6 (N.D. Cal. Jan. 29, 2018) (acknowledging the server test but noting that it did not apply to addressing the activities of end users); Nakada + Assocs., Inc. v. City of El Monte, No. 16-1467, 2017 WL 2469977, at *4 (C.D. Cal. June 2, 2017) (“Plaintiffs cannot establish on the facts adduced here that, by merely linking to those videos, without anything more, Defendant displayed the videos publicly.”) (citing \textit{Perfect 10}, 508 F.3d at 1160)); ALS Scan, Inc. v. Cloudflare, Inc., No. CV 16-5051, 2017 WL 11579039, at *6 n.8 (C.D. Cal. June 1, 2017) (clarifying that the server test holds not just the primary host of the infringing content liable, but all hosts of copies of the copyrighted work). 55. Bell v. Wilmott Storage Servs., LLC, 12 F.4th 1065, 1073 (9th Cir. 2021) (approving of the reasoning in \textit{Perfect 10}).
56. Hunley v. Instagram, LLC, No. 21-cv-03778, 2022 WL 298570, at *2 (N.D. Cal. Feb. 17, 2022) (“Hunley may be right that viewers ‘do not know or care that the photo or video is located on the Instagram server,’ but the problem for Hunley is that Ninth Circuit law does.”) (citation omitted).
57. 390 F. Supp. 3d 1162 (N.D. Cal. 2019).
58. \textit{Id.} at 1167–68.
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to naturalsociety.com’s servers. But Judge William H. Orrick disagreed, noting “FSS has not provided any case within the Ninth Circuit applying the server test outside of the search engine context or in the context here, the wholesale posting of copyrighted material on a news site.” Judge Orrick did not ultimately decide whether the server test applied to the embedded photos at issue, but he did question whether it was limited to search engines, as was the case in *Perfect 10*, or whether it was a more broadly applicable rule. The court even cited to two cases (which this Article will address shortly) that had refused to apply the server test to non-search engine embedding, demonstrating that this was not just a theoretical question but also a real one.

Although *Menzel* is the only court in the Ninth Circuit to question the server test, the server test is presently before the Ninth Circuit. In *Hunley v. Instagram, LLC*, the Ninth Circuit faces the choice of whether to uphold the server test, limit it, or overturn it. Although the wealth of Ninth Circuit precedent suggests that the Ninth Circuit will uphold the server test yet again, the case is a critical one for the future of the server test.

C. Other Circuit Precedent

The applicability of the server test in the Ninth Circuit was established in *Perfect 10*, but other courts have gradually addressed the *Perfect 10* decision. Until recently, other courts had unanimously upheld the server test (the only opposition was overturned).

Those courts that have endorsed the server test have used it for both public displays and public performances. While some have interpreted the server test to only apply to public displays, a proper reading includes public displays and public performances. While some have interpreted the server test to only apply to public displays, a proper reading includes public displays and public performances.

61. *Id.* at 1172. But the court refused to take judicial notice that the photos were hosted on naturalsociety.com and had never been saved on InfoWars’ servers. *Id.*

62. *Id.*

63. *Id.* (“[E]ven if the server test applies — and I am not concluding it does at this juncture . . .”).

64. See *id.*


67. See Flava Works, Inc. v. Gunter, 689 F.3d 754, 756 (7th Cir. 2012) (overturning the district court’s rejection of the server test).

68. See, e.g., Daniel Reinke, Note, *The Incorporation Test: Putting the Public Display Right Back Online*, 47 AIPLA Q.J. 579, 589 n.70 (2019). A court in the U.S. District Court for the Northern District of California recently interpreted the server test to be limited to only the display right in order to counter the assertion that the Supreme Court decision in *American
displays and public performances. Both public displays and public performances encompass demonstration by any “device or process,” and the same definition of the term “publicly” is used to apply to both display and performance.\(^6^9\)

The Southern District of New York twice broadly upheld the server test. In *Pearson Education, Inc. v. Ishayev*, the court, citing *Perfect 10*, held that “[a] hyperlink (or HTML instructions directing an internet user to a particular website) is the digital equivalent of giving the recipient driving directions to another website on the Internet. A hyperlink does not itself contain any substantive content.”\(^7^0\) The court held that hyperlinks “do[] not infringe on any of a copyright owner’s five exclusive rights under § 106.”\(^7^1\) In *Live Face on Web, LLC v. Biblio Holdings LLC*, the court also upheld the server test, despite a direct request to overturn it.\(^7^2\) Citing *Perfect 10*, the court concluded, “adding code linking to infringing copies hosted and disseminated by a third party does not constitute direct infringement.”\(^7^3\) But the court could not decide whether the server test precluded liability in this case because there was minimal briefing on the defendant and third-party hosting platform’s relationship.\(^7^4\)

The District of New Jersey also upheld the server test. Citing to *Perfect 10* and *Pearson Education*, it held that “[p]roviding a link to a website containing infringing material does not, as a matter of law, constitute direct copyright infringement.”\(^7^5\)

Meanwhile, in *Flava Works, Inc. v. Gunter*, the Northern District of Illinois faced the question of whether user-posted embeds of the video clips


\(^{70}\) 963 F. Supp. 2d 239, 251 (S.D.N.Y. 2013).

\(^{71}\) Id. (emphasis added).


\(^{73}\) Id. at *4.

\(^{74}\) Id. at *3–5.

on the website myVidster could directly infringe copyrights. The court held:

The Ninth Circuit’s decision [in Perfect 10] is not binding on this court; moreover, it is highly fact-specific and distinguishable. . . . To the extent that Perfect 10 can be read to stand for the proposition that inline linking can never cause a display of images or videos that would give rise to a claim of direct copyright infringement, we respectfully disagree. In our view, a website’s servers need not actually store a copy of a work in order to “display” it.  

In particular, the court reasoned that because a viewer sees the embeds as though they are part of the myVidster website, myVidster was displaying the content. In addition, while the millions of thumbnail images in Perfect10 were generated automatically by Google’s algorithms, myVidster involved users “personally select[ing] and submit[ting] [specific] videos for inline linking/embedding on myVidster.” The district court highlighted these differences between Google’s search function and more targeted embedding that was not “neutral to the content of the images.” This ruling was a complete rebuke of the server test.

But the Seventh Circuit rejected both the district court’s reasoning and conclusion. The Seventh Circuit understood that the embed code provided the video’s web address and instructions for how to display that video. It found that a user watching an embedded video was “no more a copyright infringer than if he had snuck into a movie theater and watched a copyrighted movie without buying a ticket.” It found that by embedding the videos, myVidster had not committed direct infringement. It concluded that myVidster “is [merely] giving web surfers addresses where they can find entertainment” and is not “transmitting or communicating” them, as is

76. No. 10 C 6517, 2011 WL 3876910, at *1 (N.D. Ill. Sept. 1, 2011), vacated, 689 F.3d 754 (7th Cir. 2012)).
77. Id. at *3–4.
78. Id. at *3.
79. Id.
80. Id.
81. Flava Works, Inc. v. Gunter, 689 F.3d 754, 756 (7th Cir. 2012).
82. Id. at 758.
83. See id. at 761–63.
required for infringing copyright’s public performance right. While the Seventh Circuit did not explicitly say it adopted the server test, commentators have generally understood the favorable citations to Perfect 10 and the reversal of the district court to constitute at least tacit approval of the test.

In addition, like the Ninth Circuit in Perfect 10, the Seventh Circuit maintained that while embedding by itself was not direct copyright infringement, it could constitute contributory infringement, a question it remanded to the district court.

The Northern District of Illinois later applied Flava Works in a case involving an RSS feed. It held that “[i]n accordance with the Seventh Circuit’s decision in Flava Works, since there is no evidence in the record to allow a reasonable juror to conclude that that DVD cover photo was ever contained on Yardbarker’s servers, Yardbarker did not copy the photo and Fox cannot be liable under the Copyright Act” for violating the display right.

The Southern District of Indiana also approvingly cited to Perfect 10 and Flava Works, noting that “[i]n both cases, the copyrighted images or videos were stored on servers hosting other websites that were beyond the

84. Id. at 761. The court limited this conclusion by noting an alternative theory for MyVidster’s direct liability with respect to premium memberships in which users paid for a package including backup services. Id. at 762.


86. Flava Works, Inc., 689 F.3d at 763.


88. Id.
control of the defendants.” Applying the server test, the court held that, unlike in Perfect 10 and Flava Works, the defendant hosted and served the infringing content itself, making it directly liable for infringing the plaintiff’s exclusive public display right.

In addition to those courts that explicitly upheld the server test, several courts also acknowledged the server test and did not reject it. In Society Holy Transfiguration Monastery, Inc. v. Gregory, the First Circuit held that an archbishop was liable for unlawfully displaying copyrighted content because it was “loaded on the Archbishop’s computer server and posted to his Website.” The Southern District of Florida noted the existence of the server test, at least as to the public display right, and did not reject its reasoning.

Finally, the Federal Court of Claims also applied Perfect 10 when it found that NASA had violated the plaintiff’s display right because it saved the copyrighted work to its server and made it available to visitors. Other courts, referring to the distribution right (which is fundamentally different from the public display and performance rights because it involves the creation of a copy), also did not reject or attempt to limit the holding of Perfect 10.

Despite this support for the server test, in 2017, the Northern District of Texas became the second court to question the server test—and this time the decision stuck. In Leader’s Institute, LLC v. Jackson, plaintiff The Leadership Institute (“TLI”) framed defendant Magnovo’s Bicycle-Team-Building-Events.com website, causing Magnovo’s website to appear under

90. Id. at 1050–51.
91. 689 F.3d 29, 55 (1st Cir. 2012) (citing, inter alia, Perfect 10, Inc. v. Amazon.com, Inc., 508 F.3d 1146, 1160 (9th Cir. 2007)).
92. See MidlevelU, Inc. v. ACI Info. Grp., No. 18-80843, 2019 WL 7371835, at *3–4 (S.D. Fla. Sept. 10, 2019) (appearing to endorse the server test by saying that it could not enter judgment because of a dispute about whether the defendant used embedding and framing).
93. APL Microscopic, LLC v. United States, 144 Fed. Cl. 489, 499 (2019). However, the court could have potentially not followed the server test if the copyrighted work had been embedded rather than displayed from the server.
94. See MyPlayCity, Inc. v. Conduit Ltd., No. 10-civ-1615, 2012 WL 1107648, at *13 (S.D.N.Y. Mar. 30, 2012) (“Here, as in Perfect 10, it is undisputed that MPC’s copyrighted games—the distribution of which MPC alleges constitutes copyright infringement—resided on MPC’s servers—not Conduit’s.”); Grady v. Iacullo, No. 13-cv-00624, 2016 WL 1559134, at *6–7 (D. Colo. Apr. 18, 2016) (holding that a “copyrighted work must be stored on the person or entity’s computer” to infringe the distribution right). In a precursor to Perfect 10, the Southern District of New York held that merely linking to content did not implicate direct copyright infringement under the distribution right. See Arista Records, Inc. v. MP3Board, Inc., No. 00-civ-4660, 2002 WL 1997918, at *3–4 (S.D.N.Y. Aug. 29, 2002).
TLI’s domain name and allegedly violating Magnovo’s exclusive display right. TLI included code that instructed a viewer’s web browser to retrieve code from Bicycle-Team-Building-Events.com and display the content of Bicycle-Team-Building-Events.com on TLI’s own website. TLI relied on Perfect 10, arguing that framing is not copyright infringement. But the court disagreed; it reasoned that utilizing code that instructed its own website to display copyrighted content was publicly “show[ing] a copy” of the work via a “process.” It distinguished Perfect 10 because in that case Google provided links that users could follow to access the content. In this case, however, upon visiting one of TLI’s websites, Magnovo’s content was displayed as if it were TLI’s. It also held 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 [which, under the server test, it does], the Court respectfully disagrees with the Ninth Circuit.”

D. The Server Test Under Siege

Despite the Southern District of New York’s apparent endorsement of the server test in Pearson Education and Live Face on Web, three recent decisions by that court have rejected the server test. This new trend, building on the rejection of the server test in Leader’s Institute, has created uncertainty as to whether the server test is still the default national standard, especially for social media embedding, which was the specific function at issue in two of the cases. While the first case, Goldman v. Breitbart News Network, LLC, 95

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96. Id. at *10.
97. Id. at *11.
98. Id.
99. Id.
100. Id.
101. Id. (citing Flava Works, Inc. v. Gunter, No. 10 C 6517, 2011 WL 3876910, at *4 (N.D. Ill. Sept. 1, 2011), vacated, 689 F.3d 754 (7th Cir. 2012)). Interestingly, the only support the court provides for this proposition is the district court decision in Flava Works, which, as discussed above, was overturned by the Seventh Circuit five years before the Northern District of Texas issued its opinion in this matter. Flava Works, Inc. v. Gunter, 689 F.3d 754, 761 (7th Cir. 2012).
could be read as an aberration like Leader’s Institute, such an interpretation is undermined by similar recent holdings in Nicklen v. Sinclair Broadcast Group, Inc. and McGucken v. Newsweek LLC.

I. Goldman v. Breitbart News

In Goldman, Plaintiff Justin Goldman took a photo of Tom Brady and then Boston Celtics executive Danny Ainge in East Hampton that ultimately went viral and was shared across social media platforms such as Snapchat, Reddit, and Twitter.¹⁰³ On Twitter, four different users included the photo in their Tweets.¹⁰⁴ The defendants published news articles about Tom Brady helping the Boston Celtics recruit basketball player Kevin Durant and embedded one of those Tweets (containing Goldman’s copyrighted image) in their articles.¹⁰⁵ The court defined embedding as

the act of a coder intentionally adding a specific “embed” code to the HTML instructions that incorporates an image, hosted on a third-party server, onto a webpage. To embed an image, the coder or web designer would add an “embed code” to the HTML instructions; this code directs the browser to the third-party server to retrieve the image. An embedded image will then hyperlink (that is, create a link from one place in a hypertext document to another in a different document) to the third-party website. The result: a seamlessly integrated webpage, a mix of text and images, although the underlying images may be hosted in varying locations.¹⁰⁶

It was undisputed that, by embedding, none of the defendant websites saved the photo of Brady onto their own servers.¹⁰⁷ Under the server test, this would have been a straightforward case: the defendants did not directly infringe.

But the Goldman court rejected the server test.¹⁰⁸ In rejecting Southern District of New York precedent, it concluded that those previous cases had only addressed the server test in connection with the distribution right, not the display right.¹⁰⁹ It also favorably cited to the district court decision in

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¹⁰⁴ Id. at 587.
¹⁰⁵ Id.
¹⁰⁶ Id.
¹⁰⁷ Id. at 593.
¹⁰⁸ Id. at 591–92.
Flava Works\textsuperscript{110} (even though the Seventh Circuit had overturned it\textsuperscript{111}), as well as Leader’s Institute.\textsuperscript{112} More perplexingly, the court relied on Hard Rock Cafe International (USA) Inc. v. Morton, a trademark case that held because “it [was] not clear to the computer user that she or he has left the [plaintiff’s] web site,” the defendant was liable for trademark infringement (despite trademark infringement requiring likelihood of confusion and copyright infringement having no such requirement).\textsuperscript{113}

Outside of the server test cases, the court also considered Congress’ intent in establishing the public display right and the Supreme Court’s ruling in American Broadcasting Cos. v. Aereo, Inc. The court found that the definition of display militated against the server test, as display meant ‘‘to transmit . . . a . . . display of the work . . . by means of any device or process.’ To transmit a display is to ‘communicate it by any device or process whereby images or sounds are received beyond the place from which they are sent.’’\textsuperscript{114}

It noted that

in considering the display right, Congress cast a very wide net, intending to include ‘‘[e]ach and every method by which the images . . . comprising a . . . display are picked up and conveyed.’’ . . . Indeed, an infringement of the display right could occur ‘‘if the image were transmitted by any method (by closed or open circuit television, for example, or by a computer system) from one place to members of the public elsewhere.’’\textsuperscript{115}

The court also approvingly cited to Aereo, which stated:

[T]his difference means nothing to the subscriber. It means nothing to the broadcaster. We do not see how this single difference, invisible to subscriber and broadcaster alike, could transform a system that is for all practical purposes a traditional cable system into “a copy shop that provides its patrons with a library card.”\textsuperscript{116}

\textsuperscript{110} Id. at 591 (citing Flava Works, Inc. v. Gunter, No. 10 C 6517, 2011 WL 3876910, at *4 (N.D. Ill. Sept. 1, 2011), vacated, 689 F.3d 754 (7th Cir. 2012)).

\textsuperscript{111} Flava Works, Inc. v. Gunter, 689 F.3d 754, 761 (7th Cir. 2012).


\textsuperscript{113} Id. at 592 (quoting Hard Rock Cafe Int’l (USA) Inc. v. Morton, No. 97 Civ. 9483, 1999 WL 717995, at *25 (S.D.N.Y. Sept. 9, 1999)).

\textsuperscript{114} Id. at 593 (alterations in original) (citation omitted) (quoting 17 U.S.C. § 101).

\textsuperscript{115} Id. at 589 (alterations in original) (quoting H.R. Rep. No. 94-1476, 64, 80 (1976)).

The *Goldman* court found that *Aereo* “eschew[ing] . . . purely technical distinctions” was instructive in this case.\(^{117}\)

The court held that the online publications’ embedding violated Goldman’s display right.\(^{118}\) It relied on six main points. First, the text and legislative history of the Copyright Act do not suggest that one must possess a copy of an infringing image in order to display it.\(^{119}\) Second, the websites took active steps to embed because they pasted code that contained Twitter HTML instructions.\(^{120}\) Third, embedding qualified as a “process” for the purposes of transmission.\(^{121}\) Fourth, the defendants chose the content that would be displayed.\(^{122}\) Fifth, *Perfect 10* effectively and improperly collapsed the display right into the reproduction right.\(^{123}\) Finally, the *Goldman* court held that even if *Perfect 10* properly established a server test, it was limited to a search engine like Google, where the user had to make an active choice to click on an image before it was displayed.\(^{124}\) It held that this fact-specific test should not apply here, as using a search engine “is manifestly not the same as opening up a favorite blog or website to find a full-color image awaiting the user, whether he or she asked for it, looked for it, clicked on it, or not.”\(^{125}\)

2. Nicklen v. Sinclair

In *Nicklen v. Sinclair Broadcast Group, Inc.*, the plaintiff, Paul Nicklen, was a nature photographer and filmmaker who owned the copyright to a video of an emaciated polar bear in the Canadian Arctic.\(^{126}\) Nicklen posted the video to his Instagram and Facebook accounts.\(^{127}\) Sinclair Broadcast Group later published an article titled “Starving polar bear goes viral in heartbreaking video,” in which Sinclair embedded Nicklen’s video using the

\(^{117}\) *Goldman*, 302 F. Supp. 3d at 594.

\(^{118}\) Id. at 586.

\(^{119}\) Id. at 595.

\(^{120}\) Id. at 593–94.

\(^{121}\) Id. at 594 (“[M]oreover they went as far as to note that an infringement of the display right could occur ‘if the image were transmitted by any method . . . for example, by a computer system) from one place to members of the public elsewhere.’” (quoting H.R. REP. No. 94-1476, at 64, 70)).

\(^{122}\) Id. at 595.

\(^{123}\) Id.

\(^{124}\) Id. at 595–96 (citing Perfect 10, Inc. v. Amazon.com, Inc., 508 F.3d 1146, 1154 (9th Cir. 2007)).

\(^{125}\) Id. at 596.


\(^{127}\) Id.
embed tool on either Instagram or Facebook. After Sinclair declined to take the video down, Nicklen sued, alleging that the embed infringed his exclusive display right. Similarly to the Goldman court, the Nicklen court found that the display right “is concerned not with how a work is shown, but that a work is shown.” The Nicklen court concluded that “embedding a video on a website ‘displays’ that video, because to embed a video is to show the video or individual images of the video nonsequentially by means of a device or process.” It, like the Goldman court, rejected the server test as against the text and legislative history of the Copyright Act and improperly folding the display right into the reproduction right. It also distinguished Perfect 10 and the case at hand, noting that in Perfect 10, “(1) the defendant operated a search engine and (2) the copyrighted images were displayed only if a user clicked on a link.” The court noted that, unlike with Google’s full-size image, “[a]n individual still image from the Video awaits Sinclair readers whether they click the image to play the video or not,” so it declined to adopt the server test, at least on the facts at issue. Although the court found that Nicklen plausibly alleged a violation of his display right, it preserved Sinclair’s fair use defense.

Nicklen’s reasoning largely paralleled that of Goldman. Unlike Goldman, however, Nicklen did not survey the span of extant case law, mostly citing to Goldman alone for its key propositions. While, on the one hand, this means that there was a less robust analysis in Nicklen, on the other, it means that Nicklen was a full endorsement of the reasoning in Goldman. This result made it more uncertain whether embedding is lawful under copyright law. Prior to Nicklen, Goldman and Leader’s Institute could be seen as mere anomalies in dispersed district courts. Nicklen suggests that the Southern District of New York, despite its initial embrace of the server test, is now rejecting it.

128. Id.
129. Id. at 192–93.
130. Id. at 194.
131. Id.
132. Id. at 195.
133. Id.
134. Id.
135. Id. at 196–99.

The circuit split deepened when a third judge in the Southern District of New York also rejected the server test in *McGucken v. Newsweek LLC*. The plaintiff, Elliot McGucken, is a Los Angeles-based photographer who took a photo of an ephemeral lake that appeared in Death Valley National Park. McGucken then posted that photo to his Instagram account. Defendant Newsweek later published an article about the ephemeral lake and embedded McGucken’s photo from Instagram. McGucken subsequently sued Newsweek for copyright infringement.

On cross-motions for summary judgment, Newsweek argued that it did not actually display McGucken’s photo because it had only copied the Instagram embedding code. The court rejected this argument, holding that the server test was “contrary to the text and legislative history of the Copyright Act.” Citing heavily to *Nicklen*, the court noted that the Copyright Act defines a “display” as showing a copy of a work, not “mak[ing] and then show[ing] a copy of the copyrighted work.” Therefore, it held that the server test would improperly conflate the reproduction and display right and rejected the server test. Accordingly, it found that Newsweek displayed McGucken’s photo when it embedded the Instagram post.

The Second Circuit has still not addressed the question of “whether and when embedding an image that is hosted elsewhere constitutes ‘display’ within the meaning of the Copyright Act,” but if the Second Circuit follows the approach of *Goldman*, *Nicklen*, and *McGucken*, it would set up a significant circuit split with the Ninth Circuit over its long-standing server test.
III. Should the Server Test Still Be Valid for Embedding?

Given this split over the server test, it is unclear whether it remains presumptively valid law in most of the country. The weight of numbers is still firmly behind the server test. Only four district courts—those in Leader’s Institute, Goldman, Nicklen, and McGucken—have rejected it.

But even if the server test is vulnerable to being overturned, it has existed for fifteen years. Individuals and companies have relied upon the server test, and embedding has become a ubiquitous facet of the Internet. Given this reality, there are both strong legal and policy reasons to maintain the server test, even in the face of growing headwinds. Many of these enduring rationales were originally recognized by the Ninth Circuit in Perfect 10.

A. Legal Rationale

This Section posits two series of legal arguments for maintaining the server test. First, it examines the four key differences between Google Images’ embedding in Perfect 10 and more common modern uses of embedding like those in Goldman and Nicklen. It asserts that those differences are of no import under copyright law. Second, it posits that Perfect 10’s five original rationales for the server test are still valid today.

1. Differences Between Google Images and Most Embedding

There are four major differences between most modern embedding and Google Images’ embedding in Perfect 10. First, the appearance is different, as Google Images showed a frame and comment around the full-sized image, which not all embedding does. Second, while Google Images automatically indexed websites and their photos, most embedding requires a preliminary motion and not yet blessed by the Second Circuit, threatens to widen the gulf between the circuits and exacerbate the legal uncertainty for sites that embed content hosted by third-party websites and social media platforms.


148. See discussion supra Sections II.B, II.C.

149. See discussion supra Sections II.C, II.D.

150. Perfect 10, Inc. v. Amazon.com, Inc., 508 F.3d 1146, 1156 (9th Cir. 2007) (“[T]he top part of the window (containing the information from the Google webpage) appears to frame and comment on the bottom part of the window.”); Jane C. Ginsburg & Luke Ali Budiardjo, Embedding Content or Interring Copyright: Does the Internet Need the “Server Rule”? 42 COLUM. J.L. & ARTS 417, 432 (2019) (describing how embedding seamlessly incorporates images and other media into a website).
conscious action by a user to embed content in the user’s own work.\textsuperscript{151} Third, while a user had to click on the thumbnail photo to make a full-sized photo appear on Google Images, embedded photos are generally presented automatically whether the viewer clicks on it or not.\textsuperscript{152} Finally, Google used the links for its search engine whereas embedders use them to show content.\textsuperscript{153}

None of these differences are particularly salient. As to the appearance, any consumer confusion resulting from seamlessly integrating outside content into one’s webpage is beyond the pale of copyright law. As the \textit{Perfect 10} court emphasized, “While in-line linking and framing may cause some computer users to believe they are viewing a single . . . webpage, the Copyright Act, unlike the Trademark Act, does not protect a copyright holder against acts that cause consumer confusion.”\textsuperscript{154} As noted above, one of the cases the \textit{Goldman} court cited to support its rejection of the server test was a trademark case, \textit{Hard Rock Cafe International v. Morton}.\textsuperscript{155} Regardless, copyright and trademark law protect two distinct categories of intellectual property, and no matter how confusing the source of a displayed copyrighted work may be to consumers, that question must be answered under trademark law, if at all, not copyright law.

Second, the difference between automatic and conscious embedding is relevant for volitional conduct, not the definitions of display or performance.\textsuperscript{156} Some courts and commentators have relied on the Supreme Court’s ruling in \textit{Aereo}, which rejected mere technological distinctions in

\textsuperscript{151} \textit{Perfect 10}, 508 F.3d at 1155 (“Google operates a search engine, a software program that automatically accesses thousands of websites (collections of webpages) and indexes them within a database stored on Google’s computers.”); \textit{Goldman v. Breithart News Network, LLC}, 302 F. Supp. 3d 585, 588 (S.D.N.Y. 2018) (“To embed an image, the coder or web designer would add an ‘embed code’ to the HTML instructions . . . .”).

\textsuperscript{152} In \textit{Goldman}, “defendants caused the embedded Tweets to appear on their websites[,]” whereas in \textit{Perfect 10 and Flava Works}, “after clicking on [a thumbnail], the user would retrieve content from plaintiff’s website.” \textit{Goldman}, 302 F. Supp. 3d at 586, 591 (first citing \textit{Perfect 10}, 508 F.3d at 1155; and then citing Flava Works, Inc. v. Gunter, 689 F.3d 754, 756 (7th Cir. 2012)).

\textsuperscript{153} \textsl{Id.} at 596 (“Google’s search engine provided a service whereby the user navigated from webpage to webpage, with Google’s assistance. This is manifestly not the same as opening up a favorite blog or website to find a full color image awaiting the user . . . .”).

\textsuperscript{154} \textit{Perfect 10}, 508 F.3d at 1161.

\textsuperscript{155} \textit{Goldman}, 302 F. Supp. 3d at 586, 592 (citing Hard Rock Cafe Int’l v. Morton, No. 97 Civ. 9483, 1999 WL 717995 (S.D.N.Y. Sept. 9, 1999)).

\textsuperscript{156} \textit{Cartoon Network LP v. CSC Holdings, Inc.}, 536 F.3d 121, 131 (2d Cir. 2008) (holding that “volitional conduct is an important element of direct [copyright] liability”).
holding that Aereo, not its users, performed the infringing activity. 157 But the Aereo majority did not address volitional conduct, and, regardless, volition is beyond the scope of the server test, which instead asks which party hosts and serves the content. Furthermore, while some commentators and the Goldman court saw the Supreme Court’s decision in Aereo as generally rejecting technical loopholes to copyright law and “mere technical distinctions invisible to the user,” 158 others have considered such a reading overly broad. 159 Even the Supreme Court cautioned that its decision in Aereo was limited to the remote antenna technology at issue in that case, 160 making a broad reading that would impinge upon the server test untenable.

The final two differences were the main foci of the Goldman and Nicklen courts. 161 First, unlike with hyperlinks, embedding causes the linked content to be seamlessly incorporated as part of the website. 162 For example, while hyperlinking to an article about Beyoncé would require the visitor to click the link to read it, embedding a photo of Beyoncé would cause the image to

157. 573 U.S. 431, 444 (2014) (“Here the signals pursue their ordinary course of travel through the universe until today’s ‘turn of the knob’—a click on a website—activates machinery that intercepts and reroutes them to Aereo’s subscribers over the Internet. But this difference means nothing to the subscriber.”). But see id. at 456 (Scalia, J., dissenting) (“The key point is that subscribers call all the shots: Aereo’s automated system does not relay any program, copyrighted or not, until a subscriber selects the program and tells Aereo to relay it.”).

158. See, e.g., Goldman, 302 F. Supp. 3d at 595; Shannon McGovern, Note, Aereo, Inline Linking, and a New Approach to Copyright Infringement for Emerging Technologies, 64 Cath. U. L. Rev. 777, 778 (2015) (arguing that Aereo can be read to eliminate the “perceived technological loopholes evident in Perfect 10”).

159. See, e.g., Lian, supra note 7, at 251 (“[T]o interpret the Aereo court’s focus on the user experience as dismissing any technological difference may be overbroad and misguided.”).

160. Aereo, 573 U.S. at 450–51 (“We cannot now answer more precisely how the Transmit Clause or other provisions of the Copyright Act will apply to technologies not before us... ['O']ther novel issues not before the Court... should await a case in which they are squarely presented.”) (quoting Brief for United States as Amicus Curiae at 34)).

161. Goldman, 302 F. Supp. 3d at 595 (“Perfect 10 was heavily informed by two factors—the fact that the defendant operated a search engine, and the fact that the user made an active choice to click on an image before it was displayed—that suggest that such a broad reading is neither appropriate nor desirable.”); Nicklen v. Sinclair Broad. Grp., Inc., 551 F. Supp. 3d, 188, 195 (S.D.N.Y. 2021) (“Further, the Ninth Circuit’s reasoning in Perfect 10 should be cabined by two facts specific to that case: (1) the defendant operated a search engine and (2) the copyrighted images were displayed only if a user clicked on a link.”).

162. Reinke, supra note 68, at 586; see also Burgunder & Floyd, supra note 8, at 5–6 (“When the web page references information that is stored in particular locations, such as on Computer B, for inclusion in the presentation, the process is called inline linking.”).
appear in-line on the webpage without any additional action on the part of the visitor. Therefore, according to at least one commentator, the viewer does not have to affirmatively click to cause the embedded image to appear and “generally has no idea the content does not actually reside on the linking site.”

But Internet users are familiar with the practice of embedding, however, and appreciate that the content they are viewing may be linked from another site. Indeed, the whole purpose of the Internet is to link content in a helpful manner. Furthermore, the distinction between user behaviors hews closely to looking at volitional conduct rather than the definition of display and performance, which is the gravamen of the server test.

Finally, the Goldman and Nicklen courts tried to partially cabin the server test to search engines, based on their understanding of what constituted a display. The line is somewhat blurred between what is a display and what merely points to a display by another. The Copyright Act says that a display is a transmission of a copy by any “device or process.” A plausible argument exists that embedding would constitute such a device or process. Instead of working as a map, a single embed on social media could be seen as transmitting a work, akin to a livestream of a video. In comparison, the Google Images function is arguably more akin, at least in appearance, to a map providing directions to a display by another than an embedded link that initiates the display on its own.

But although the Perfect 10 court applied the server test to a search engine, the court did not restrict the test to only search engines. Instead, it promulgated a broad rule that “the owner of a computer that does not store and serve the electronic information to a user is not displaying that

163. McGovern, supra note 158, at 785.
164. See, e.g., Goldman v. Breitbart News Network, LLC, 302 F. Supp. 3d 585, 586 (S.D.N.Y. 2018) (“[M]any websites embed Twitter posts into their own content; for those familiar with digital news or other content, this is common knowledge.”).
165. See Tim Berners-Lee, Realising the Full Potential of the Web, W3 (Dec. 3, 1997), https://www.w3.org/1998/02/Potential.html (“[Linking] is essential to the Web: it looses [sic] its power if there are certain types of things to which you can’t link.”).
166. Goldman, 302 F. Supp. 3d at 595 (“[The Perfect 10] [o]pinion, while not strictly cabining its adoption of the Server Test to a search engine like Google, nevertheless relied heavily on that fact in its analysis.”); Nicklen v. Sinclair Broad. Grp., Inc., 551 F. Supp. 3d 188, 195 (S.D.N.Y. 2021) (“This case does not involve a search engine . . . .”).
168. See Reinke, supra note 68, at 592–94 (describing how a link would qualify as a “device or process”).
169. See id. at 594 (describing how a video of Frank Romero’s Death of Rubén Salazar would be a transmitted display).
information, even if such owner in-line links to or frames the electronic information.” On its face, this rule covers all embedding, not just that in search engines. In a recent ruling, the Northern District of California held so. While the Goldman court may have found linking for the purpose of a search engine more valuable than embedding images on a website or blog, the question of a different, or transformative, purpose is left to fair use rather than prima facie copyright infringement.

2. The Enduring Perfect 10 Rationales

Beyond the fact that those four differences between Google Images and most embedding make no material difference for the server test, the five rationales for the server test still remain. The district court articulated these rationales in Perfect 10, and the Ninth Circuit implicitly endorsed them by affirming the district court’s decision. These five rationales are: (1) how the technology functions, (2) not inviting copyright infringement, (3) clarity, (4) maintaining focus on direct infringers, and (5) balancing the goals of copyright. All five of these rationales have staying power and continue to be true today as they were in 2006, when the district court first articulated them.

First, embedding technology still functions the same way. While appearances can slightly vary, the technology is still an HTML code directing content outside of a webpage to appear seamlessly on the webpage itself.
Second, embedding does not invite copyright infringement. Even if the embed were removed, an individual could still directly access the embedded content elsewhere online. Embedding, by linking other content, facilitates access rather than directly posting the work online. And while the server test means that embedding cannot form the basis for direct liability, it is incorrect to say where there is embedding there is no direct infringuer. If the initial post containing the content is unauthorized, the copyright owner can pursue that poster, rather than the embedder of that post, for directly infringing their copyright.

In addition, as the Ninth Circuit stated in Perfect 10, embedding may facilitate access to infringing images, which “raises . . . contributory liability issues,” even though it is not direct infringement, and other, non-copyright claims may also apply. There are three types of secondary liability under U.S. copyright law: vicarious liability, contributory liability, and inducement. One is vicariously liable if “the defendant has (1) the right and ability to supervise the infringing conduct and (2) a direct financial interest in the infringing activity.” An entity is “contributorily liable if it ‘has actual knowledge that specific infringing material is available using its system and can ‘take simple measures to prevent further damage’ to copyrighted works, yet continues to provide access to infringing works.’” Inducement liability applies when an entity has taken “‘active steps . . . to encourage direct infringement,’ such as advertising an infringing use or instructing how to engage in an infringing use . . . . with the object of promoting its use to infringe copyright.” The server test explicitly leaves open the possibility

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176. Lian, supra note 7, at 260 (explaining that embedding providing “‘access’ only facilitates the display or performance of the source material”).

177. See Perfect 10, 508 F.3d at 1161.

178. See William F. Patry, Patry on Copyright § 15:7 (rev. ed. 2018) (“[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.”) (emphasis added).

179. Perfect 10, 508 F.3d at 1161.


181. Perfect 10, Inc. v. Visa Int’l Serv. Ass’n, 494 F.3d 788, 802 (9th Cir. 2007) (citing Ellison v. Robertson, 357 F.3d 1072, 1078 (9th Cir. 2004)).


of an embedder being subject to secondary liability for copyright infringement. But for any claim of secondary liability, there must be direct infringement. The server test also only applies to copyright law, so a plaintiff may still bring other claims under, for example, trademark law or the right of publicity.

Third, the server test remains a bright-line rule. If you host and serve the infringing content, you may be directly liable; if you do not host and serve the infringing content, you cannot be directly liable. While copyright law has its fair share of complicated multi-factor and element-based tests, the server test is a bright-line, ex ante rule that all parties can understand before they act.

Fourth, without acts of direct infringement, there would be no suits such as those in Perfect 10 premised upon holding an embedder responsible. An embed can link to two types of works: authorized and unauthorized copies of a work. For the former, as the original poster was authorized, it is impossible under the server test to establish a claim for direct copyright infringement and there is no secondary copyright infringement because there is no underlying direct infringement. Under the latter, there is undoubtedly a

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184. See Perfect 10, 508 F.3d 1146, 1161 (9th Cir. 2007) (“[S]uch assistance raises only contributory liability issues . . . .” (citing Grokster, 545 U.S. at 929–30)).

185. See id. at 1169 (“As a threshold matter, before we examine Perfect 10’s claims that Google is secondarily liable, Perfect 10 must establish that there has been direct infringement by third parties.”).

186. See, e.g., Brian Murphy, Embedding Photos from Instagram – Infringement or Licensed Use?, FRANKFURT KURNIT KLEIN & SELZ (Apr. 16, 2020), https://advertisinglaw.fkks.com/post/102g4t3/embedding-photos-from-instagram-infringement-or-licensed-use (explaining that if an embedded post contained “a woman recognizably featured in the photograph[, she] could plausibly assert a claim that the use of her image violated her right of publicity”); Hard Rock Cafe Int’l (USA) Inc. v. Morton, No. 97 Civ. 9483, 1999 WL 717995, at *29 (S.D.N.Y. Sept. 9, 1999) (holding that the defendant was liable for trademark infringement for framing the Hard Rock logo on its website); Batra v. PopSugar, Inc., No. 18-cv-03752, 2019 WL 482492, at *3 (N.D. Cal. Feb. 7, 2019) (denying a motion to dismiss Lanham Act claims for reposting plaintiff’s social media post because it could be likely to cause confusion as to sponsorship or approval of the goods or services of defendant PopSugar).

187. See Perfect 10, 508 F.3d at 1159.

188. See, e.g., 17 U.S.C. § 107 (describing the fair use test, which is the holistic review of four different factors); Skidmore v. Led Zeppelin, 952 F.3d 1051, 1064 (9th Cir. 2020) (describing the two-step extrinsic and intrinsic tests required to determine the substantial similarity element of copyright infringement).

189. This was the case in Nicklen, where the defendant media group directly embedded Nicklen’s own authorized copies on his Facebook or Instagram pages. Nicklen v. Sinclair Broad. Grp., Inc., 551 F. Supp. 3d 188, 192 (S.D.N.Y. 2021). If the district court had not
direct infringer: the person who originally unlawfully posted the work. These rationales are still applicable. Copyright owners should target direct infringers, without whom no further circulation or embedding of the work would occur.

Finally, the server test continues to maintain a balance between the twin goals of copyright: encouraging new creation and disseminating works. Linking is “essential to the Web.” It has allowed unprecedented access to information and works. If an author uploads their content online, they know that there is the possibility that others may link to or embed that content. If a work is directly uploaded without their consent, that constitutes direct infringement notwithstanding the server test. The server test strikes a balance between encouraging access through embedding while giving an artist control over when and how their work is initially disseminated.

Breaking away from the server test could disrupt this balance. Scholars have criticized the server test for conflicting with the statutory language and legislative history of the Copyright Act and the Supreme Court decision in Aereo. A broad reading of the term “transmit”—the operative verb for performing or displaying—under the Copyright Act would mean that inserting a link is a transmission or a process that causes a work to be displayed or performed. However, as one commentator noted, such an

rejected the server test, it would have been a straightforward dismissal, as there would have been no direct infringement.

190. For example, the copyrighted images Google was accused of infringing in Perfect 10 were unauthorized copies. Perfect 10, 508 F.3d at 1169.

191. See Michael P. Goodyear, Synchronizing Copyright and Technology: A New Paradigm for Sync Rights, 87 Mo. L. Rev. 95, 102–03 (2022) (describing the conflict between copyright’s two goals).


193. Id.

194. See, e.g., Ginsburg & Budiardjo, supra note 7, at 180–90 (arguing that the server rule misinterprets the term “transmit” under the Copyright Act, which should be read to cover hyperlinks for the display and performance rights); Podlas, supra note 7, at 80 (“To the extent that the Perfect 10 cases have been interpreted to mean that linking does not infringe, they must be confined to automated links provided by search engines (and to the fair use of works). More importantly, they are at odds with Aereo.”); McGovern, supra note 158, at 778 (arguing that Aereo may eviscerate the “perceived technological loopholes evident in Perfect 10”); Reinke, supra note 68, at 592–99 (arguing that the server test runs counter to the plain language of the statute, its legislative history, and the Aereo Court’s “aversion to relying on technicalities”).

195. Podlas, supra note 7, at 74 (“[I]nserting a link to a copyrighted work transmits it (or is part of a process resulting in the display/performance of it.”); Ginsburg & Budiardjo, supra note 7, at 183 (“[A link,] when clicked, sets in motion the process through which the ultimate communication is consummated.”).
argument could be a slippery slope. If providing a link is enough to constitute a process and the server test’s requirement of hosting the content for direct liability were abandoned, would only embedding constitute copyright infringement? Or would providing a mere hyperlink, or a web address, or even directions or a map constitute infringement too? Interpreting the display and performance rights too broadly could greatly disturb the balance between copyright’s two goals. Indeed, a broad reading could significantly reduce the use of links altogether, resulting in a substantial decrease in the legitimate propagation of information online.

B. Policy Rationale

In addition to the enduring legal justifications for the server test, there are also strong policy reasons to maintain it. Even assuming the server test is flawed, future jurisprudence and lawmaking must contend with the world that the server test has created. Furthermore, the server test provides choices to copyright owners to adjust their actions in order to counter the undesired effects of the test.

1. The Server Test World

Technology companies, shielded from the risks of direct infringement liability, relied on the server test to create models of content distribution such as embedding. Many key online services that we take for granted—such as Google Images and the sharing function on social media—rely on the server test. The consuming public relies on embedding to communicate and entertain. At least one 2011 study estimated that nearly ninety-nine percent of content distributed online is embedded.

196. Lian, supra note 7, at 249.
197. Id. at 248–49.
198. See Jerry Jie Hua, Toward a More Balanced Approach: Rethinking and Readjusting Copyright Systems in the Digital Network Era 66–67 (2014) (“[T]he continuous expansion of copyright protection has disrupted the balance of interests that originally existed in the pre-digital copyright system . . . . An imbalance of interests in copyright systems overprotects the exclusive rights of rights owners by sacrificing the legitimate access and exploitation of the copyright works by public users and information in the public domain.”).
199. See John Blevins, Uncertainty as Enforcement Mechanism: The New Expansion of Secondary Copyright Liability to Internet Platforms, 34 Cardozo L. Rev. 1821, 1872 (2013) (“[L]iability actions create negative externalities by imposing costs on the innocent parties whose non-infringing activity is jeopardized.”).
201. Id. at 438–44 (describing the significant impact of the server test on the availability and communication of content on the Internet).
202. Id. at 421.
percent of blogs use embedding. As of 2016, another study found that nearly a quarter of all news articles used at least one embed.

One commentator argued that following the elimination of the server test, “only a narrow band of links will be open to challenge.” However, in reality, the vast majority of links would be legally questionable and the loss of the server test could potentially subject millions of ordinary Internet users to liability. Linking is ubiquitous on the Internet and is widely employed by its users. According to Daniel Nazer of the Electronic Frontier Foundation, if the server test were overturned, “it would threaten the ubiquitous practice of in-line linking that benefits millions of Internet users every day.” Technologically, no one wants to have to navigate to another website themselves to see the content, like they do for reviewing the sources cited in a law review article’s footnotes. The demise of the server test would thus subject Internet users to copyright infringement liability while significantly limiting the access provided by embedding.

2. Authors’ Choices

Sir Tim Berners-Lee, the creator of the World Wide Web and the hyperlink, once asserted that “[t]here is no reason to have to ask before making a link to another site.” And, at least for the purposes of attribution, that is largely true. Unlike in many other countries, U.S. copyright law

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205. Reinke, supra note 68, at 584.
206. Cf. Jane C. Ginsburg, Authors and Users in Copyright, 45 J. COPYRIGHT SOC’Y U.S.A. 1, 18 (1997) (explaining that some scholars believe the Supreme Court’s ruling in Sony Corp. of America v. Universal City Studios, Inc. may have been motivated, in part, by the Court’s reluctance to “hold that millions of Americans are committing copyright infringement every day”).
207. Louise Matsakis, A Ruling Over Embedded Tweets Could Change Online Publishing, WIRED (Feb. 16, 2018, 5:38 PM), https://www.wired.com/story/embedded-tweets-copyright-law (“One of the most ubiquitous features of the internet is the ability to link to content elsewhere.”).
208. Nazer, supra note 4.
210. See Berne Convention for the Protection of Literary and Artistic Works, art. 6bis, Sept. 9, 1886, 1161 U.N.T.S. 3 (obligating all signatories to protect moral and attribution rights); see, e.g., Copyright Act, R.S.C. 1985, c. C-42 (Can.); Code de la Propriété
does not contain a broad set of moral rights that provide for attribution.\textsuperscript{211} The main (limited) exception to this is under the Visual Artists Rights Act of 1990 ("VARA"), which only protects the attribution right of authors of visual arts—paintings, drawings, prints, sculptures, or photographs of which there are fewer than 200 copies.\textsuperscript{212} While artists may wish to guarantee attribution of their work or control how their work is used,\textsuperscript{213} that option is generally not available under U.S. copyright law.

At least some copyright owners have an interest in protecting when and how their content is shared, even when they post it on a third-party website. Many artists have expressed that they would like their works to be shared, so long as they are attributed.\textsuperscript{214} The lack of attribution potentially deprives artists of the ability to have their work recognized.\textsuperscript{215} And artists want to preserve attribution. For example, users on Facebook and Instagram have posted statements to the effect that they reserve their posts’ copyright protection.\textsuperscript{216} One of these chain posts declared, “In response to the new

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\bibitem{212} 17 U.S.C. §§ 101, 106A(a)(1).

\bibitem{213} See, e.g., Zach Blumenfeld, \textit{Selling the Artist, Not the Art: Using Personal Brand Concepts to Reform Copyright Law for the Social Media Age}, 42 COLUM. J.L. & ARTS 241, 251–54 (2019) (describing three viral memes ("This is Fine," “Distracted Boyfriend,” and Pepe the Frog) and how their original creators wished to either guarantee their continued attribution or control their use).

\bibitem{214} See Liz Dowthwaite et al., \textit{How Relevant Is Copyright to Online Artists? A Qualitative Study of Understandings, Coping Strategies, and Possible Solutions}, 21 FIRST MONDAY no. 5 (May 2, 2016), https://journals.uic.edu/ojs/index.php/fm/article/view/6107/5457 (“Most creators are happy for their readers to take their comics and share them with family and friends through any means they wish, as long as they are attributed.”).

\bibitem{215} See Am. Soc’y 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, at 6 (Apr. 24, 2015) (“The reuse of ASMP member images on Pinterest, Facebook, or Twitter without attribution nullifies the major benefit of such platforms to visual artists: exposure to very large potential audiences.”).

\end{footnotesize}
Facebook guidelines, I hereby declare that my copyright is attached to all of my personal details, illustrations, comics, paintings, professional photos and videos, etc. While these posts by themselves are of dubious legal value and were responding to hoaxes, they demonstrate how at least some copyright owners want to maintain control over their posted content.

Some believe that the server test further limits artists’ control over their posted works. For example, Jane Ginsburg and Luke Ali Budiardjo argue that “under the server rule, the authors’ initial making available of their works online effects a kind of digital exhaustion of public display rights.” They posit that this impermissibly “convert[s] the display right into an atrophied appendage of the reproduction right” and thereby “ignores Congress’s endeavor to ensure that the full ‘bundle’ of exclusive rights will address evolving modes of exploitation of works.” They also contend that removing the server test would grant creators greater control over how their works are used and remuneration for downstream displays and performances. The Nicklen court expressed a similar concern, noting:

Under the server rule, a photographer who promotes his work on Instagram or a filmmaker who posts her short film on YouTube

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217. Herrman, supra note 216.

218. Katharine Trendacosta, There Are No Magic Words That You Can Post to Change Instagram’s Terms of Service, ELEC. FRONTIER FOUND. (Aug. 26, 2019), https://www.eff.org/deeplinks/2019/08/there-are-no-magic-words-you-can-post-change-instagrams-terms-service (explaining that such posts are irrelevant to contract law, which governs users’ relationship with social media companies’ terms of service); Ben Gilbert, No, You Don’t Have to Publicly Declare that Instagram Can’t Use Your Photos — You Already Said Yes When You Signed Up, BUS. INSIDER (Aug. 21, 2019, 12:11 PM), https://www.businessinsider.com/instagram-facebook-hoax-terms-of-service-photo-rights-permission-2019-8 (explaining that users already granted these rights to social media companies when they signed up); Stan Horaczek, Posting a Copyright Notice on Social Media Doesn’t Actually Accomplish Anything, POPULAR SCI. (Aug. 21, 2019, 3:07 PM), https://www.popsci.com/instagram-privacy-copyright-notice (describing how the permissions clause in Instagram’s terms of service explains that Instagram does not own a user’s copyright, but the user does grant Instagram a license to use the content).


220. Id. at 430.

221. Id. at 463 (“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.”).
surrenders control over how, when, and by whom their work is subsequently shown — reducing the display right, effectively, to the limited right of first publication that the Copyright Act of 1976 rejects. \(^{222}\)

Similarly, another court in the Southern District of New York concluded, albeit in a different context, that if copyrighted works were widely shared with no remuneration for the copyright owner, “there 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 social media are free grist for use by media companies?” \(^{223}\)

The answer is that all posted content is not free grist. First, there is an active decision by the copyright owner to post the content online. Second, the copyright owner chooses which platform and what associated permissions it will require. These choices give copyright owners a substantial degree of control, notwithstanding the server test.

Authors choose when and how to make their works available online, and they can make decisions or impose conditions that will give them more control over who else is allowed to display their work. They can choose the platforms on which they want to post their content, opting for ones that give them more control over embedding. Although it has been suggested that companies may need to be coerced into action by removing the server test, \(^{224}\) the choices of artists to opt for platforms with more permissions can lead companies to voluntarily move towards a more middle ground that encourages both creation and access. \(^{225}\)

Additionally, authors can choose how they post the content to the platform. One possibility is utilizing metadata tagging or visible digital watermarks to provide better protection for one’s work online. \(^{226}\) Metadata can be changed or stripped away, \(^{227}\) but modifications to the published image

\(^{224}\) Ginsburg & Budiardjo, supra note 150, at 474 (“[T]he reversal of the server test should impel technology companies who offer services which currently rely primarily on the free appropriation of copyrighted content to modify their business models to avoid liability or to take seriously the demands of creators and content owners to share their bounty.”).
\(^{225}\) See infra Part V.
\(^{226}\) Dowthwaite et al., supra note 214.
\(^{227}\) Matt Golowczynski, Whose Image Is It Anyway? The Importance of Permanent Attribution, SMARTFRAME (July 4, 2021), https://smartframe.io/blog/whose-image-is-it-anyway (“While [metadata] can help in the event of any dispute, the fact that this metadata can be easily changed or completely stripped away from images makes it less reliable once an image has been published.”).
itself can be more lasting. In one study, many of the interviewed artists included their names and URLs on the art, in a way that was unobtrusive but hard to remove.

IV. Alternative Theories for Lawful Embedding

While strong legal and policy reasons for maintaining the server test remain, there is still a risk that it could ultimately disappear, at least in some Circuits, as shown by the Goldman, Nicklen, and McGucken decisions. In fact, the Ninth Circuit is currently facing a decision over whether to uphold, limit, or overturn the server test. Given this potential danger, it is worth considering how to best maintain a version of lawful embedding that would allow the practice to continue.

Commentators have argued that other doctrines in copyright law could help fill the gaps in protecting expression and access norms on the Internet if the server test were overturned. For example, in Goldman, Judge Forrest dismissed concerns that the demise of the server test would “cause a tremendous chilling effect on the core functionality of the web,” noting that several defenses would be available to protect legitimate embedding, including fair use, the Digital Millennium Copyright Act (“DMCA”), and implied licenses (with which this Article will also include sublicenses). At least one commentator has noted that all three options presented by Judge Forrest would fail to immunize embedding from being infringement, and this Article finds that all three purported mitigation strategies have significant limitations.

228. Id. (noting that “[t]he presence of a watermark - particularly one that clearly identifies the photographer” can be helpful in establishing attribution).
229. Dowthwaite et al., supra note 214.
231. E.g., Ginsburg & Budiardjo, supra note 150, at 444–45 (suggesting that the harmful consequences of overturning the server test would be mitigated through the DMCA and express or implied licenses, which would not cause significant disruption to the Internet’s infrastructure).
233. Id.
234. Lian, supra note 7, at 269.
A. The Digital Millennium Copyright Act

The DMCA limits liability for service providers relating to online material on their platforms.235 A service provider is defined as a “provider of online services or network access, or the operator of facilities therefor.”236 The DMCA provides four safe harbors for different types of online activity: § 512(a) for transmission services, § 512(b) for caching, § 512(c) for storage of user-generated content, and § 512(d) for informational location tools (i.e., linking).237

These safe harbors, while invaluable for the Internet’s growth, would be a limited replacement for the server test. While the first two safe harbors are irrelevant to embedding, Ginsburg and Budiardjo have argued that § 512(c) and (d) could compensate for the server test.238 But, § 512(c) is limited to user-generated content,239 so it would only protect the platforms hosting user-generated embeds (if those even qualified as content), not the embedders.

More likely, the relevant safe harbor would be § 512(d), which relates to a service provider’s own references or links rather than only protecting for user-generated links.240 Ginsburg and Budiardjo argued that § 512(d) can apply to all those who create links.241 But in reality, the DMCA only shields Internet service providers (“ISPs”) from liability, not users.242 Thus, while the DMCA would protect platforms from liability for user embeds, users

236. Id. § 512(k)(1)(B). The definition is slightly different for transitory digital network communications under § 512(a), such as messaging services, § 512(k)(1)(A), but embedding would implicate just § 512(c) and § 512(d), which relate to user-generated content residing on a system and information location tools, respectively.
237. Id. § 512(a)-(d).
238. See Ginsburg & Budiardjo, supra note 150, at 424 (posing that the DMCA “can shield linkers from liability for incorporating content from infringing third-party websites via in-line or framing hyperlinks”).
239. 17 U.S.C. § 512(c) (“A service provider shall not be liable for . . . infringement of copyright by reason of the storage at the direction of a user of material . . . .”) (emphasis added).
240. See id. § 512(d) (not requiring actions by a user to qualify for the safe harbor).
242. See 17 U.S.C. § 512(c) (“A service provider shall not be liable . . . for infringement of copyright by reason of the storage at the direction of a user.”) (emphasis added); Ginsburg & Budiardjo, supra note 150, at 453–56 (recognizing that the common understanding of service providers is that they are platforms, and that even more liberal readings just extend to bloggers and website operators). The other provision of the DMCA raised by Ginsburg and Budiardjo is § 512(d), but this provision only relates to search engines. 17 U.S.C. § 512(d).
would not be able to avail themselves of the safe harbor to protect themselves for embedding. And embedders are primarily users, not platforms.\textsuperscript{243}

Furthermore, § 512(d) would not prevent liability for embeds of \textit{authorized} content, such as embedding content from the author’s own social media page or website. It only immunizes service providers for liability for “referring or linking users to an online location containing \textit{infringing} material or \textit{infringing} activity.”\textsuperscript{244} Therefore, the copyright owner could still successfully sue embedders of authorized copies of their works for copyright infringement if the server test were overturned.

Perhaps most concerning, although the extent of § 512(d) has not been broadly litigated, § 512(d) has been commonly understood as referring to web directories and search engines.\textsuperscript{245} At least one circuit court was skeptical that the section should extend more broadly than search engines for hyperlinks.\textsuperscript{246} Although a broad reading of § 512(d) is plausible and the nullification of the server test could result in further jurisprudence on this question,\textsuperscript{247} those would be largely uncharted waters. If courts were to employ this restrictive reading of “information location tool” under § 512(d), it would further undermine the ability of the DMCA to substitute for the server test.

Finally, since the DMCA does not require ISPs to monitor their platforms for infringement,\textsuperscript{248} relying on the DMCA to combat embedding would force authors to monitor all embeds to find infringing displays or performances.

\textsuperscript{243} See, e.g., Introducing Web Embedding Instagram Content on Websites, \textit{INSTAGRAM} (July 10, 2013), https://about.instagram.com/blog/announcements/introducing-web-embedding-instagram-content-on-websites (introducing the embed function on Instagram for users that wish to embed photos or videos posted on other sites).

\textsuperscript{244} 17 U.S.C. § 512(d) (emphasis added).

\textsuperscript{245} See, e.g., Nicholas W. Bramble, \textit{Safe Harbors and the National Information Infrastructure}, 64 \textit{HASTINGS L.J.} 325, 333 n.21 (2013) (referring to the section as “protecting web directories and search engines that inadvertently link to infringing content”); Mitchell Zimmerman, \textit{Your DMCA Safe Harbor Questions Answered}, \textit{FENWICK} 16 (2017) https://assets.fenwick.com/legacy/FenwickDocuments/DMCA-QA.pdf (describing § 512(c) as providing that “an eligible service provider won’t be liable to claims for providing a search engine that led to infringing matter”).

\textsuperscript{246} See \textit{Perfect 10, Inc. v. CCBill LLC}, 488 F.3d 1102, 1116–17 (9th Cir. 2007) (expressing doubt that merely displaying a link on a website would qualify as an “information location tool” under § 512(d)).

\textsuperscript{247} Ginsburg & Budiardjo, \textit{supra} note 150, at 450–53 (arguing that embedding and inline linking were already known at the time the DMCA was passed and explaining that § 512(d) cases have not addressed this question much due to the adoption of the server test in 2007, which mooted the question).

\textsuperscript{248} 17 U.S.C. § 512(m).
While reliance on the DMCA would allow creators to choose which embeds to allow and which to have taken down, it creates a significant amount of work for them. Authors have already complained that monitoring the entire Internet for their works requires them to dedicate significant time and resources. A framework where artists could prevent unwanted embedding from the start, rather than after the embeds are created, would be preferable for artists.

B. Fair Use

Fair use is the best known of the series of statutory exceptions to the exclusive rights of copyright owners. Fair use allows “others to build freely upon the ideas and information conveyed by a work” for purposes such as criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research. Not limited to specific examples, fair use holistically employs four factors to determine if a use is fair, weighing the (1) use’s purpose and character; (2) the nature of the copyrighted work; (3) the amount and substantiality of the portion used; and (4) the potential effect upon the market for the work. Fair use can be a powerful defense to a copyright infringement claim, permitting uses such as Google Images’ copied thumbnail photos in Perfect 10, creative appropriation art, and the use of copied portions of books and articles in classrooms.


250. See infra Part V.


254. Id.

255. Perfect 10, Inc. v. Amazon.com, Inc., 508 F.3d 1146, 1168 (9th Cir. 2007).

256. Cariou v. Prince, 714 F.3d 694, 708 (2d Cir. 2013) (holding that a series of artworks incorporating copyrighted photos was fair use because it had “a different character, g[a]ve Cariou’s photographs a new expression, and employ[ed] new aesthetics with creative and communicative results distinct from Cariou’s”).

257. See Cambridge Univ. Press v. Becker, 446 F. Supp. 3d 1145, 1162–271 (N.D. Ga. 2020) (holding that the scanning and distribution of smaller excerpts that did not contain the heart of the work were fair uses, whereas the photocopying and distribution of larger excerpts and/or the heart of the work infringed the copyrights).
But despite fair use’s potential, it is a less than ideal candidate for protecting embedding, as it is highly fact-specific and is an ex post doctrine that can only be determined after the use has occurred and litigation has commenced. As the Ninth Circuit recently held, mere embedding, by itself, is not a transformative fair use.258 Because of the holistic evaluation of specific facts and differences of opinion between courts, it is difficult to provide clear guidelines on fair use outcomes.259 While the use of certain online works, such as words in Tweets (assuming Tweets are copyrightable), would likely lean towards fair use,260 the use of more creative content, such as photos and videos, is less certain and would require more analysis to determine fair use.261 Another commentator, examining the viability of the fair use defense in a world without the server test, surmised that “the outcome of the fair use inquiry may swing in either direction.”262

For examples of this uncertainty, one can look to the analysis in Nicklen. The court proceeded through the four factors to determine whether the embed of the starving polar bear video in an article qualified as fair use.263 The use appeared to be a common type of fair use, using the video in an article that

258. See McGucken v. Pub Ocean Ltd., No. 21-55854, 2022 WL 3051019, at *5 (9th Cir. Aug. 3, 2022) (“The article likewise does not meaningfully transform the photos by embedding them within the text of the article.”).

259. See Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569, 581, 584 (1994) (noting that Congress had “eschewed a rigid, bright-line approach to fair use,” so the Court “has to work its way through the relevant factors, and be judged case by case, in light of the ends of the copyright law”) (quoting Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 449 n.31 (1984)); Michael P. Goodyear, Culture and Fair Use, 32 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 334, 368–70 (2022) (explaining how courts have interpreted the four fair use factors differently, coming to disparate, and sometimes even contradictory, conclusions); Debora Halbert, Mass Culture and the Culture of the Masses: A Manifesto for User-Generated Rights, 11 VAND. J. ENT. & TECH. L. 921, 953 (2009) (finding that there is a “lack of clarity regarding what is and is not a fair use”). But see Matthew Sag, Predicting Fair Use, 73 OHIO ST. L.J. 47, 85 (2012) (arguing that the fair use doctrine is more rational and consistent than is commonly assumed).

260. See Matsakis, supra note 207 (“The fair use for quoting someone’s public statement is overwhelming good . . . . Tweets are so short that they’re often not even copyrightable.”) (quoting Daniel Nazer, senior staff attorney for the Electronic Frontier Foundation)).


262. Lian, supra note 7, at 263.

reported on the video itself. Yet the court declined to decide whether the embed was fair use on a motion to dismiss, although it noted that the use might be transformative. Similarly, in McGucken, even at the summary judgment stage, the court was unable to decide whether Newsweek’s use of the photo of Death Valley was fair use because of disputes about whether the use of the photo was transformative and whether using the embed tool on Instagram usurped McGucken’s market. As shown by these examples, unlike the server test, the fair use test does not offer certainty or a quick dismissal of weak claims.

Furthermore, as fair use jurisprudence currently stands, fair use would only protect a small subset of embedding uses. For example, in the publication context, courts draw a distinction between uses of photos in reporting about the photos, which are fair, and those articles on the subject of the photos, which typically are not. For example, in Walsh v. Townsquare Media, Inc., the Southern District of New York found that including Cardi B’s Instagram post (that contained a copyrighted photo) relating to her partnership with Tom Ford in an article about Cardi B’s reaction to criticism about the partnership was fair use. Similarly, in Boesen v. United Sports Publications, Ltd., the court found that embedding an Instagram post from professional tennis player Caroline Wozniacki that contained a copyrighted photograph of her was fair use because it reported on the post itself. The court noted that “embedding social media posts that incidentally use copyrighted images in reporting on the posts themselves transforms the original works, supporting a finding of fair use.” On the other hand, in Otto v. Hearst Communications, Inc., the Southern District of

264. See, e.g., Barcroft Media, Ltd. v. Coed Media Grp., LLC, 297 F. Supp. 3d 339, 352 (S.D.N.Y. 2017) (“Display of a copyrighted image or video may be transformative where the use serves to illustrate criticism, commentary, or a news story about that work.”); Ferdman v. CBS Interactive Inc., 342 F. Supp. 3d 515, 534 (S.D.N.Y. 2018) (holding that because the article did not comment on the photos themselves, the use was not transformative).
270. Id. at *5.
New York did not find fair use of a photo of then President Trump crashing a wedding because “the use of an image solely to illustrate the content of that image, in a commercial capacity,” is not transformative.271 Likewise, in Barcroft Media, Ltd. v. Coed Media Group, LLC, the Southern District of New York found no fair use of the copyrighted photographs because the “articles did not comment on, criticize, or report news about the Images themselves; instead, they used the Images as illustrative aids because they depicted the subjects described in its articles.”272

This dichotomy would exclude a significant set of embedding uses that are currently permissible under the server test. While news sources frequently use embedding,273 the mere category of news reporting does not make a use fair, as it still depends on the actual use.274 And even if news reporting may be more likely to be transformative, the most common users of embedding are everyday individuals sharing content. Under the “about the photos/subject of the photos” dichotomy currently prevailing in fair use analyses, all sharing that is not for reporting or another critical purpose or commentary could be seen as potentially infringing.275 Debora Halbert has argued that while such uses may not qualify as transformative use because they do not advance criticism or commentary directly, they can still generate commentary further down the line by generating social and political discussions.276 As Rebecca Tushnet similarly remarked, “Popular culture is worth . . . protect[ing] not only, and not mostly, because it indirectly affects political attitudes but because it constitutes a major part of modern citizens’ environment, shaping how we think and act.”277 Protecting only critical works would substantially reduce the dissemination of content. The uncertainty of the fair use defense could compound the limited protection of embedding that fair use does offer, chilling even bona fide fair uses.278

273. See The State of Social Embeds, supra note 204, at 3 (finding that, as of 2016, nearly a quarter of all news articles embedded at least one piece of content).
274. McGucken v. Pub Ocean Ltd., No. 21-55854, 2022 WL 3051019, at *7 (9th Cir. Aug. 3, 2022) ("[T]he mere category of 'news reporting,' which is all that Pub Ocean points to, is 'not sufficient itself to sustain a per se finding of fair use.'") (quoting Monge v. Maya Mags., 688 F.3d 1164, 1173 (9th Cir. 2012)).
275. See Bloom, supra note 267, at 21–22.
276. Halbert, supra note 259, at 952.
278. See Ryan McNamara, Comment, Technically, It Wasn’t Me: How a Questionable Finding of Copyright Infringement May Chill Journalism in the Social Media Age, 93 TUL. L.
C. Implied Licenses and Sublicenses

The third defense raised by Judge Forrest was the implied license. A nonexclusive copyright license may not only be expressly granted but may also be implied from conduct.\textsuperscript{279} Implied licenses are found where the copyright owner engages in activity “from which [the] other [party] may properly infer that the owner consents to his use.”\textsuperscript{280} In addition to implied licenses, a common defense to a claim of allegedly unlawful embedding is the sublicense. A sublicense is a primary licensee’s lawful grant of subsidiary rights to a third party.\textsuperscript{281} With embedding, the sublicense would be from a platform. But recent jurisprudence has shown that implied licenses and sublicenses are rather limited defenses for embedding.

Some courts have found implied licenses in scenarios where “mere permission” or a lack of objection have applied.\textsuperscript{282} For example, in \textit{Field v. Google Inc.}, the District of Nevada found that where a website publisher knew that the “industry standard mechanisms” allowed him to include a “no archive” meta-tag on his website and he declined to do so, he granted an implied license to Google to archive his website.\textsuperscript{283} Likewise, some commentators concluded that by posting images on a website, the owner is impliedly authorizing others to reference this material.\textsuperscript{284} Others have

\textsuperscript{279} Effects Assocs., Inc. v. Cohen, 908 F.2d 555, 558 (9th Cir. 1990) (citation omitted).
\textsuperscript{280} De Forest Radio Tel. & Tel. Co. v. United States, 273 U.S. 236, 241 (1927).
\textsuperscript{281} \textit{See} Sinclair v. Ziff Davis, LLC, 454 F. Supp. 3d 342, 344 (S.D.N.Y. 2020), \textit{modified}, 18-CV-790, 2020 WL 3450136 (June 24, 2020) (“A copyright owner who permits a licensee to grant sublicenses cannot bring an infringement suit against a sublicensee, so long as both licensee and sublicensee act, respectively, within the terms of their license and sublicense.”).
\textsuperscript{282} \textit{See}, e.g., I.A.E., Inc. v. Shaver, 74 F.3d 768, 775 (7th Cir. 1996) (“[C]onsent 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.”); Pshoyos v. Pearson Educ., Inc., 855 F. Supp. 2d 103, 125 (S.D.N.Y. 2012) (examining whether there was a “meeting of the minds” over “knowledge of, and acquiescence” to the practice of backdating licenses”) (quoting Keanie Dealer Servs., Inc. v. Harts, 968 F. Supp. 944, 947 (S.D.N.Y. 1997).
\textsuperscript{283} 412 F. Supp. 2d 1106, 1116 (D. Nev. 2006).
\textsuperscript{284} \textit{See}, e.g., Brad M. Scheller, Casenote, \textit{Hey, Keep Your Links 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 \textit{VILL. SPORTS & ENT. L.J.} 415, 452 (2003) (“One could argue that in posting images on his Web site, Kelly authorized other Web users to reference his material. Such online participation gives tacit authorization to refer to Web site content, but arguably not to copy all or part of this content.”); Link Law on the Internet: A Panel Discussion, 38 IDEA 197, 226 (1998) (“MR. GODWIN: . . . [I]s there an implied license to link? MR. HARRISON: Well, the answer is that there probably is an implied
encouraged implied licensing for online copyright infringement purposes, suggesting a broad understanding of implied licenses to reduce conflicts over copyright permissions. This approach could be seen as effectively sanctioning an opt-out approach to embedding.

The issue with implied licenses, as compared to the DMCA or fair use, is that implied licenses are based on nascent court-specific common law doctrine rather than statutory law. While *Field* read an implied license very broadly, there is no guarantee that other courts, especially outside of the District of Nevada, would follow suit. For example, even courts that have acknowledged or tacitly accepted the *Field* test have questioned its applicability to online functions not at issue in that case. In fact, some questions exist as to whether the conduct in *Field* should qualify as a license at all under contract theory. While the implied license doctrine could be a promising avenue for allowing embedding, the decision in *Field* is too

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286. See Sieman, supra note 285, at 915–16 (arguing that a broad reading of the “knowledge” requirement in *Field* could resolve the dichotomy between the opt-out norms of the Internet and the opt-in ones of copyright); Georgia Jenkins, *An Extended Doctrine of Implied Consent – A Digital Mediator?*, 52 INT’L REV. INTELL. PROP. & COMPETITION L. 706, 717, 730 (2021) (“Commentary has characterised this decision as validating an opt-out system to copyright . . . . [M]odern implied licences in copyright law flit between two perspectives: opt in and opt out.”).

287. See Jenkins, supra note 286, at 716–17 (noting the differing approaches to finding an implied license under U.S. law).

288. See, e.g., MidlevelU, Inc. v. ACI Info. Grp., 989 F.3d 1205, 1217 (11th Cir. 2021) (holding that an implied license did not apply where the defendant used a web crawler to access RSS feeds rather than use it in the manner Google did in *Field*); Associated Press v. Meltwater U.S. Holdings, Inc., 931 F. Supp. 2d 537, 564 (S.D.N.Y. 2013) (“[T]he website’s failure to use the robots.txt protocol to block its access will not create an implied license.”); Righthaven LLC v. Choudhry, No. 10-CV-2155, 2011 WL 2976800, at *2 (D. Nev. July 21, 2011) (declining to answer whether an RSS feed was equivalent to the use of a search engine for purposes of an implied license under *Field*).

289. See Christopher M. Newman, “What Exactly Are You Implying?”, *The Elusive Nature of the Implied Copyright License*, 32 CARDOZO ARTS & ENT. L.J. 501, 531 (2014) (“[I]t would be difficult to explain the holding of *Field* using the theory that a license is a species of contract. There was no communication of any kind between Field and any (human) agent of Google from which one could infer a ‘meeting of the minds,’ nor did Google provide Field with any promise of consideration in exchange for the license.”).
nascent and untested to serve as a universal rule for all online conduct. More recently, the McGucken court was unable to decide on cross-motions for summary judgment whether Instagram offering its embed tool served as an implied sublicense to use the photos posted on Instagram.\(^{290}\) The ruling in McGucken suggests that courts may be reluctant, at least prior to trial, to find implied licenses except where there is overwhelming evidence.

A second licensing issue is sublicensing. Many Terms of Service (“ToS”) on major online platforms would appear to grant sublicenses to users to embed content on the platforms. By posting on platforms, users are governed by the platforms’ ToS. These ToS frequently grant the platform, and other users, the right to use posted content.\(^{291}\) For example, Snapchat’s ToS provides:

> For all content you submit to the Services, you grant Snap and our affiliates a worldwide, royalty-free, sublicensable, and transferable license to host, store, cache, use, display, reproduce, modify, adapt, edit, publish, analyze, transmit, and distribute that content. . . . Because Public Content is inherently public, you grant Snap, our affiliates, other users of the Services, and our business partners all of the same rights, as to content you submit to public Services, that you grant for non-Public Content in the previous paragraph . . . .\(^{292}\)

However, there is some debate about whether these ToS also grant other users the right to share and embed posted content. For example, in *Agence France Presse v. Morel*, the court held that Twitter’s ToS language only granted rights to Twitter and its partners, not any third parties, because it did not specifically reserve such sublicenses.\(^{293}\) This result would not appear to be an issue with Snapchat, which specifically reserves rights for “other users of the Services.”\(^{294}\)

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\(^{294}\) *Snap Inc. Terms of Service*, supra note 292.
More recently, three cases found that a ToS did not grant a sublicense to users to embed content posted on social media platforms.295 These cases reduce the viability of sublicenses replacing the server test. In McGucken, the Southern District of New York declined to dismiss a lawsuit against Newsweek for embedding a photo on Instagram.296 The court found that while Instagram’s ToS granted Instagram the right to sublicense posted content, there was no evidence (at that stage of the case) that such a sublicense was actually granted by Instagram.297 In light of the decision in McGucken, the Southern District of New York agreed and reversed its prior decision in Sinclair v. Ziff Davis, LLC—in which it had found a sublicense for content posted on Instagram.298 Even at the summary judgment stage, the McGucken court held that there were genuine disputes of material fact as to whether there was a sublicense.299 In addition, Instagram declared, in June 2020, that websites need Instagram users’ permission to embed their images.300 Finally, in Babcock v. Gannett Satellite Information Network, LLC, the Northern District of Indiana found that although Twitter’s ToS gave other entities the right to share content posted to Twitter, this right was “subject to [Twitter’s] terms and conditions for such Content use[,]” which had not been analyzed.301 More precise sublicensing language in the ToS could solve the ambiguities addressed in these cases.302 But for now, the efficacy of sublicenses as an alternative to the server test is questionable.

V. Permission-Driven Embedding

Given the weaknesses of the proposed alternatives to the server test, a better replacement is needed if the server test is eventually overturned. As

295. This question was also raised in Schroeder v. Volvo Group North America, LLC, but the court held that it was outside of the scope of the complaint and did not involve facts of which the court had taken judicial notice. No. LACV 20-05127, 2020 WL 6562242, at *6 (C.D. Cal. Sept. 3, 2020).
296. See supra Section II.D.3.
302. See Ginsburg & Budiardjo, supra note 150, at 465 (“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.”).
was explained above in Section III.B.2, copyright owners have a strong interest in protecting how their works are used. While that interest is not always legally defensible, it is nonetheless an important consideration in crafting a new legal framework for embedding content. After analyzing the purposes of copyright and the Internet, this Article will propose a new permission-driven structure for embedding that will continue to balance competing interests of authors, copyright law, and the Internet, building on measures major online platforms have already started to implement.

A. Goals of Copyright and the Internet

Copyright’s primary two goals are promoting the dissemination of new works and protecting the rights of rightsholders. According to the U.S. Constitution, the purpose of copyright is “[t]o promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries.” The set of rights provided for by copyright law gives authors an “incentive to create.” The rationale that more creative works will enrich society has been the guiding logic of copyright since at least the Statute of Anne in the early eighteenth century. But interwoven with this goal is access to such works and their underlying information and ideas. Courts and Congress have long tried to balance these two goals.

In the online space, policymakers also need to contend with the Internet. Sir Tim Berners-Lee, the creator of the World Wide Web, described it as a

303. See supra discussion Section II.B.2.
304. See supra notes 214–18 and accompanying text.
305. See Goodyear, supra note 191, at 131.
309. See Malla Pollack, What Is Congress Supposed to Promote?: Defining “Progress” in Article I, Section 8, Clause 8 of the United States Constitution, or Introducing the Progress Clause, 80 NEB. L. REV. 754, 809 (2001) (concluding that the term “progress” in the Intellectual Property Clause of the Constitution refers to the dissemination of knowledge); see also Stewart v. Abend, 495 U.S. 207, 228 (1990) (“[D]issemination of creative works is a goal of the Copyright Act . . . .”); Twentieth Century Music Corp. v. Aiken, 422 U.S. 151, 156 (1975) (“[P]rivate motivation must ultimately serve the cause of promoting broad public availability of literature, music, and the other arts.”).
310. See Goodyear, supra note 191, at 103–09 (describing how courts and Congress adapted to different technological innovations since the founding of the United States).
“universal space of information” connected by linking. He said that linking “is essential to the Web: it loses [sic] its power if there are certain types of things to which you can’t link.”

Linking and embedding are at the core of the Internet. Embedding also reduces required hosting space because the embedded content is hosted on the original third party website’s server. Embedding has become a ubiquitous and important part of the Internet and supports copyright’s goal of access to information.

But embedding can also conflict with the goal of preserving copyright owners’ rights. The Internet primarily operates as an opt-out system. For example, website owners can create robots.txt files to instruct search engines which information they may and may not index. Site owners may exclude certain users by requiring a username and password, blocking a specific IP address, or requiring a subscription. But copyright is fundamentally an opt-
in system. One cannot use a copyrighted work without permission or a statutory exemption.

On top of these conflicting goals, policymakers must also address online social behaviors. Consumers often believe online content is free for the taking. This is not true. But this free sharing norm is deeply embedded in the participatory culture of the Internet and exemplified by social media phenomena such as the sharing of memes. Indeed, many websites actively encourage users to post links to and share content that is not their own.

Some commentators have even argued that these modern norms represent a significant shift in the social and economic environment that necessitates a recalibration of copyright law to match the realities of the modern world.

Other scholars have even suggested that online copying and sharing is akin

319. See Lian, supra note 7, at 236 (“Such conflict between the opt-in copyright system and the opt-out Internet may explain many controversies about embedding in copyright law.”); Sieman, supra note 285, at 886 (acknowledging a “fundamental conflict between copyright law and the technology developed to make the Internet useful and powerful”).

320. See 17 U.S.C. § 106 (“The owner of copyright under this title has the exclusive rights to do and to authorize [certain enumerated uses].”).

321. Lauren Levinson, Comment, Adapting Fair Use to Reflect Social Media Norms: A Joint Proposal, 64 UCLA L. REV. 1038, 1040 (2017) (“Specifically, online fora encourage individuals to share their own ideas and engage with the content shared by other users . . . [which] creates an online culture where shared social media content is viewed as free for the taking.”).


323. See Levinson, supra note 321, at 1051–54 (explaining how memes are an example of the participatory, sharing-based culture of the Internet and, especially, social media).


325. See, e.g., WILLIAM PATRY, HOW TO FIX COPYRIGHT 2–3 (2011) (explaining that while copyright laws were created in times of “artificial scarcity,” the Internet has greatly changed the landscape by offering low barriers to entry and global reach that has ushered in the “democratization of creation”); Levinson, supra note 321, at 1047 (“This Comment aims to demonstrate that the manner in which individuals use the Internet today presents yet another example of technological change that necessitates a recalibration of copyright law.”).
to free speech.326 This copying and sharing serves a vital role in the dialogue of modern society and thus requires protection.327

B. A Permission-Driven Model for Embedding

A framework for modern embedding must balance rights and access. It must also acknowledge rightsholders’ desire for control and consumers’ expectation to share online content freely. This Article proposes permission-driven embedding as that framework.

As explained above in Section IV.C, many major online platforms may require users to agree to ToS that allow other users to share and embed their posted content.328 But recent cases have led to uncertainty over the coverage of the ToS.329 And authors are disappointed about their apparent lack of agency. Instead of a blanket ToS whose terms can lead to gaps in liability and which forecloses choice, platforms could offer customizable options for users to allow or not allow embedding of their posted content. While requiring a user to acquire permission affirmatively before sharing would be unworkable,330 the permission-based framework this Article proposes focuses not on individuals requesting permission but on artists clearly signaling whether they have granted permission in the first place.

Permission-driven embedding is the idea that embeds are only possible when the author authorizes them. Unlike current norms under ToS sublicenses and the server test, this framework would offer a wider range of choices to the creator while maintaining clear rules for users. There is no one single way in which permission-driven embedding might operate. Platforms would generally offer options to authors to either make their work available for embedding or not. Authors would choose under which conditions their

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326. See, e.g., Tushnet, supra note 277, at 546 (“Copies can still serve free speech purposes when their culture-altering and culture-constituting effects aren’t distilled into some new derivative work but remain in a viewer’s mind or appear in her conversation—when their power derives from their content and not from a second comer’s modifications.”); Halbert, supra note 259, at 952–53 (discussing how sharing content, even if not transformative in and of itself, generates important dialogue that is socially valuable).

327. See, e.g., Tushnet, supra note 277, at 546; Halbert, supra note 259, at 952–53.


329. See supra notes 293–301 and accompanying text.

330. See Lian, supra note 7, at 259 (“[S]trictly adhering to the opt-in rule, i.e., requiring each party who intends to embed content to obtain authorization from the content’s owner, would incur huge transaction costs and lead to market failures.”); Sieman, supra note 285, at 891 (“The transaction costs that Google would incur to secure permission to index every website would be overwhelming. The same is true for individual Internet users. . . . An opt-in Internet would be virtually unusable.”).
works would be embeddable. These options could include allowing embeds of only certain content, for only certain websites or purposes, or for any purpose as long as the content is properly attributed.

This framework is not the first proposal for a permission-driven approach to using copyrighted works on the Internet. Such a model was proposed rather early for linking and framing by Walter Effross in a 1998 law review article. In that article, Effross explained:

[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.

While Effross’ traffic light model was not adopted, it offers a simple yet powerful image for creators indicating whether they allow different types of actions.

In addition to Effross’ model, there are open licenses, including the most well-known example, the Creative Commons license. Under the Creative Commons structure, authors can choose to make their works available for use online pursuant to a series of elected conditions. All Creative Commons licenses require attribution in subsequent uses. But authors can also decide whether they wish to allow commercial uses or the creation of derivative works. Authors can decide whether they will require creators of derivative works to license them under the same terms as the original work (the so-called “ShareAlike” license). These author choices form binding contracts.

332. Id.
334. Id.
335. Id.
336. Id.
The lone U.S. court of appeals case to address whether a Creative Commons license is valid is *Jacobsen v. Katzer*. In *Jacobsen*, the Federal Circuit held that the license contained “enforceable copyright conditions” because there was consideration in the form of economic value in the attribution right.\(^{337}\)

The Creative Commons license and other open licensing structures\(^{338}\) have been enormously successful. Over 1.4 billion works have been shared under Creative Commons licenses alone.\(^{339}\) These open licensed images have become the basis for open license databases such as Wikimedia and a primary source of content for website media.\(^{340}\) One 2018 study estimated the total value of Creative Commons uses on Wikimedia Commons alone at $28.9 billion.\(^{341}\) These open licenses have become an essential part of the online universe. They are also powerful examples of successful online permission-driven structures that have superseded the parameters of copyright law.

Permission-driven embedding will bring the principles of open licensing into the embedding context and meet the concerns that Effross raised in his traffic light model. Imposing technical restrictions on what can or cannot be embedded would function as a separate, private ordering that would supersede the server test (or lack thereof). If the server test remains the law, the permission-driven model would require that embedding be prohibited where authors do not permit it. If the server test were overturned, permission-driven embedding would provide a critical model for preserving the lawful dissemination of content through embedding.

Permission-driven embedding not only balances the desires of creators with the benefits of access but also acts as a bright-line rule for liability. Like the server test, the permission-driven embedding model would provide clear

\(^{337}\) 535 F.3d 1373, 1381–83 (Fed. Cir. 2008).


ex ante guidance to copyright owners, online platforms, and Internet users. The adoption of the server test was, in part, driven by the fact that it is a clearly defined rule, understandable by all.\textsuperscript{342} The permission-driven model would also be a bright-line rule, but one that could either function alongside or in replacement of the server test. If the server test remains the law of the land, permission-driven embedding presents an opportunity for copyright owners to have increased control over embeds of their works. If the server test is overturned, permission-driven embedding would allow users to continue linking to content, as long as those who created the linked content grant permission.

The significant increase in copyright infringement suits by photographers and photo-licensing agencies for online use of their photos underlines the importance of a bright-line rule.\textsuperscript{343} While this is partially driven by increasing amounts of infringement, other rightsholders act as so-called copyright “trolls” to leverage settlement fees over minor or even lawful uses of their works.\textsuperscript{344} Clear rules around the lawfulness of embedding are crucial for Internet users understanding their rights and liability exposure.\textsuperscript{345}

Finally, but importantly, permission-driven embedding does not require legislative or judicial action but can be privately enacted by online platforms sua sponte. This benefit makes this method distinct from other proposals for copyright reform. For example, one commentator advocated for a statutory exemption for legitimate embedding, in place of the server test.\textsuperscript{346} Another advanced the idea of amending the Copyright Act to exempt content that is readily downloadable while protecting content that does not have a share.

\begin{itemize}
\item \textsuperscript{342} Perfect 10 v. Google, Inc., 416 F. Supp. 2d 828, 844 (C.D. Cal. 2006), aff’d in part, rev’d in part sub nom., Perfect 10, Inc. v. Amazon.com, Inc., 508 F.3d 1146 (9th Cir. 2007) (“[W]ebsite operators can readily understand the server test and courts can apply it relatively easily.”); see also supra note 187–88 and accompanying text.
\item \textsuperscript{344} See id. (describing reasons for the uptick in litigation over infringement of photo copyrights); Michael P. Goodyear, A Shield or a Solution: Confronting the New Copyright Troll Problem, 21 TEX. REV. ENT. & SPORTS L. 77, 82–87 (2020) (describing increased trolling activity in the copyright space by both copyright owners and attorneys); Balgane sh, supra note 308, at 768–69 (arguing that copyright trolling is a problem that harms borderline uses, such as fair uses and minor infringements).
\item \textsuperscript{345} Sholder & Edelstein, supra note 343, at 34, n.7 (describing key questions facing websites and users regarding liability and the uncertain state of embedding following Goldman).
\item \textsuperscript{346} Lian, supra note 7, at 269–75.
\end{itemize}
download, or embed button.\textsuperscript{347} While these proposals would have to garner congressional support, permission-driven embedding would be instituted on a per platform basis. So platforms could gradually and individually adopt aspects of the permission-driven embedding framework.

\section*{C. Platforms' Policies for Embedding}

Indeed, while most major online platforms may not give content owners full control over how and whether their content is embedded,\textsuperscript{348} some platforms have already started to adopt aspects of the permission-driven framework for embedding. This Section looks at some of the permission-driven embedding practices of YouTube, Instagram, Twitter, Snapchat, and Getty Images.

YouTube, like many websites, allows users to embed its user-generated videos on other websites.\textsuperscript{349} But it also allows users to restrict such embedding. Under YouTube’s rules, the default is that user-posted videos can be embedded.\textsuperscript{350} But YouTube allows users to opt out and restrict embedding.\textsuperscript{351} Users can choose to prohibit all embedding or can choose whether to block embedding on individual websites and apps.\textsuperscript{352} This option gives users a high degree of control over whether their content is embedded.

Instagram adopted a similar approach in December 2021. Previously, all publicly posted content on Instagram was available for embedding.\textsuperscript{353} But users could choose to make their content private, in which case their content could not be embedded.\textsuperscript{354} This public-private division provided users with a


\textsuperscript{348} Ginsburg & Budiardjo, supra note 150, at 438 (“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.”).


\textsuperscript{350} Id.


\textsuperscript{352} Id.

\textsuperscript{353} See oEmbed Read, META FOR DEVS., https://developers.facebook.com/docs/features-reference/oembed_read (last visited Sept. 1, 2022) (“The oEmbed Read feature allows your app to get embed HTML and basic metadata for public Facebook and Instagram pages, posts, and videos.”).

\textsuperscript{354} See Introducing Web Embedding Instagram Content on Websites, supra note 243 (“Is your content private? Then nothing has changed. Embed code is only available to those whose photos and videos are public.”).
choice and some control over embedding. Instagram signaled a shift toward more permission-driven embedding when it announced in June 2020 that users may need permission from image owners to embed their public posts.\(^\text{355}\) Instagram’s community guidelines further reiterate this, extolling users to “[s]hare only photos and videos that you’ve taken or have the right to share.”\(^\text{356}\) The latest development in Instagram’s adoption of permission-driven embedding structures was in December 2021, when it announced that, similarly to YouTube, Instagram users in the United States could choose under their account settings whether their public posts or profile could be embedded on websites outside of Instagram.\(^\text{357}\) This setting is an on-off switch, in which the user either allows all embedding of their public posts and profile or prohibits all embeds.\(^\text{358}\)

Twitter, on the other hand, sets fairly strict requirements for embedding. If a user deletes their Tweet or changes its status to protected, the media in the embedded Tweet will no longer be available, but the text content of the embedded Tweet will remain visible.\(^\text{359}\) When embedding a Tweet, a user must comply with Twitter’s display requirements.\(^\text{360}\) These requirements include displaying the Tweet author’s profile picture, @username, and display name, as well as linking to the author’s Twitter profile.\(^\text{361}\) This Twitter requirement is like an attribution right. Instagram embeds also frame the entire post and provide proper attribution “by displaying the post owner’s username and linking to the post owner’s profile.”\(^\text{362}\) This structure assuages


\(^{358}\) *Id.*


\(^{361}\) Display Requirements: Tweets, supra note 360.

one of the main concerns of authors by ensuring that their works are attributed to them.\footnote{363}{See supra notes 210–18 and accompanying text.}

Snapchat follows a similar approach to Instagram and Twitter. Snapchat limits embedding to public content but also requires attribution to the original author.\footnote{364}{Public Content Display Terms, SNAP INC., https://web.archive.org/web/20210927031119/https://snap.com/en-US/policies/pcd (last visited Sept. 21, 2021).} Snapchat also prohibits using embedded Snaps for improper purposes, such as falsely implying sponsorship or endorsement.\footnote{365}{Id.}

Photo licensors have also started to create permission-driven regimes. For example, Getty Images licenses over sixty-six million images for free through its website.\footnote{366}{See Embed, GETTY IMAGES, https://www.gettyimages.com/resources/embed (last visited Sept. 1, 2022); see also 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, 1453–54 (2014) (describing the Getty Images embedding licensing regime).} Users must use Getty’s propriety code to embed the images and must use the images for non-commercial purposes.\footnote{367}{See Embed, supra note 366.} As Rebecca Tushnet has explained, technically, at least in those jurisdictions recognizing the server test, there is no need to obtain a license to embed.\footnote{368}{Id. at 1454.} However, this method provides Getty with a high degree of control over how images are embedded.\footnote{369}{Id. at 1453–54.}

Under Getty’s consumer terms, Getty limits the use of its images to “events that are newsworthy or of public interest” and prohibits the use of its images “for any commercial purpose,” “in violation of any stated restriction,” “in a defamatory, pornographic, or otherwise unlawful manner,” or outside of the embed viewer.\footnote{370}{Getty Images Site Terms of Use, GETTY IMAGES, https://www.gettyimages.com/company/terms (last updated Aug. 2022).} While this control means that Getty Images photos can only be used in rather specific ways and cannot be modified,\footnote{371}{Tushnet, supra note 366, at 1454–55.} this permission-driven approach provides clarity around embedding.

These social media platforms and Getty Images are just a few examples, but they provide both a bellwether and important precedents. These models demonstrate that permission-driven embedding is already here and is being adopted by major platforms to different degrees. As more platforms start to adopt similar permission-driven policies for embedding, they can look to these existing models. Like YouTube and Instagram, platforms can grant
users explicit permission to opt out of embedding for all websites. Or, like YouTube, platforms could allow users to block embeds on specific websites. Or perhaps, like Getty Images or Creative Commons, platforms will offer users the ability to limit embedding to only noncommercial uses. Like Snapchat (and previously Instagram), platforms could instead choose to focus on a public-private dichotomy for posts. Or, like Twitter and Snapchat, platforms could require embeds to maintain author attribution and the original platform’s frame.

The different options available to content creators could very well dictate which platforms they wish to use for disseminating their works. Permission-driven embedding could have a significant impact on platform popularity for artists. Indeed, it could even dictate the future of online content sharing.

VI. The Future of Embedding

The server test has been the de facto national rule for over a decade and has allowed embedding to flourish and become a central feature of the modern Internet. Although the Ninth Circuit was the first to endorse the server test in Perfect 10, courts across the country have since embraced it. The server test was the backbone on which embedding was built. Despite recent setbacks, the server test is still valid and has strong legal and policy rationales for its continued existence.

But these growing headwinds force us to contemplate a world without the server test. The goals of copyright and the Internet suggest that a permission-driven model of embedding would best fill that prospective void. Proposed alternatives to the server test—the DMCA, fair use, and implied licenses and sublicenses—all fall short of immunizing embedding from direct copyright infringement liability. Permission-driven embedding, on the other hand, provides clear rules akin to the server test on a platform-by-platform basis. Users select from a slate of options to determine whether and how their content will be embedded. As shown by the examples of some of the largest social media platforms, this shift to permission-driven embedding is already underway. This private ordering model would provide a potent alternative if the server test were to disappear. But permission-driven embedding will also continue to operate alongside the server test. No matter whether copyright law will always include the server test, the future of embedding will be permission-driven.