

FOR PUBLICATION

**UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT**

ALEXIS HUNLEY; MATTHEW
SCOTT BRAUER, Individually and
On Behalf of All Others Similarly
Situated,

Plaintiffs-Appellants,

v.

INSTAGRAM, LLC,

Defendant-Appellee.

No. 22-15293

D.C. No. 3:21-cv-
03778-CRB

OPINION

Appeal from the United States District Court
for the Northern District of California
Charles R. Breyer, District Judge, Presiding

Argued and Submitted February 6, 2023
San Francisco, California

Filed July 17, 2023

Before: Jay S. Bybee and Patrick J. Bumatay, Circuit
Judges, and Richard D. Bennett,* District Judge.

Opinion by Judge Bybee

* The Honorable Richard D. Bennett, United States District Judge for the
District of Maryland, sitting by designation.

SUMMARY**

Copyright

The panel affirmed the district court's dismissal of an action brought by two photographers under the Copyright Act alleging that Instagram, LLC, violated their exclusive display right by permitting third-party sites to embed the photographers' Instagram content.

The panel held that, under *Perfect 10 v. Amazon*, 508 F.3d 1146 (9th Cir. 2007), Instagram could not be liable for secondary infringement because embedding a photo does not "display a copy" of the underlying image. *Perfect 10* set forth the "Server Test," which provides that a copy of a photographic image is not displayed when it is not fixed in a computer's memory. The panel held that *Perfect 10* did not restrict the application of the Server Test to a specific type of website, such as search engines. Arguments that *Perfect 10* is inconsistent with the Copyright Act are foreclosed by *Perfect 10* outside of an en banc proceeding. And *Perfect 10* was not effectively overturned by *American Broadcasting Co. v. Aereo*, 573 U.S. 431 (2014), which held that a streaming provider infringed broadcasters' exclusive right of public performance.

** This summary constitutes no part of the opinion of the court. It has been prepared by court staff for the convenience of the reader.

COUNSEL

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OPINION

BYBEE, Circuit Judge:

This copyright dispute tests the limits of our holding in *Perfect 10 v. Amazon*, 508 F.3d 1146 (9th Cir. 2007) in light of the Supreme Court’s subsequent decision in *American Broadcasting Companies, Inc. v. Aereo*, 573 U.S. 431 (2014). Plaintiffs-appellees Alexis Hunley and Matthew Scott Brauer (collectively “Hunley”) are photographers who sued defendant Instagram for copyright infringement. Hunley alleges that Instagram violates their exclusive display right by permitting third-party sites to embed the photographers’ Instagram content. *See* 17 U.S.C. § 106(5). The district court held that Instagram could not be liable for secondary infringement because embedding a photo does not “display a copy” of the underlying images under *Perfect 10*.

We agree with the district court that *Perfect 10* forecloses relief in this case. Accordingly, we affirm.

I. FACTS AND PROCEEDINGS

A. *Facts*

1. The Background

Instagram is a social media platform where users share photo and video content to their followers. Users with public profiles grant Instagram a royalty-free sublicense to display their photos. Instagram's infrastructure also allows third-party websites to "embed" public Instagram posts.

Embedding¹ is a method that allows a third-party website (the embedding website) to incorporate content directly from the website where it originally appeared (the host website). Websites are created using instructions written in Hypertext Markup Language ("HTML"). *Perfect 10*, 508 F.3d at 1155. HTML is a text-only code, meaning that the underlying HTML instructions cannot contain images. Instead, when a website wants to include an image, "the HTML instructions on the web[site] provide an address for where the images are stored, whether in the web[site] publisher's computer or some other computer." *Id.*

Users access a website through a web browser application. *Id.* When a web creator wants to include an image on a website, the web creator will write HTML instructions that direct the user's web browser to retrieve the image from a specific location on a server and display it according to the website's formatting requirements. When the image is located on the same server as the website, the HTML will include the file name of that image. So for example, if the National Parks Service wants to display a

¹ We have sometimes referred to embedding as "in-line linking" or "framing."

photo of Joshua Tree National Park located on its own server, it will write HTML instructions directing the browser to display the image file, ``, and the browser will retrieve and display the photo, hosted by the NPS server. By contrast, if an external website wants to include an image that is *not* located on its own servers, it will use HTML instructions to “embed” the image from another website’s server. To do so, the embedding website creator will use HTML instructions directing the browser to retrieve and display an image from an outside website rather than an image file. So if the embedding website wants to show the National Park Service’s Instagram post featuring Joshua Tree National Park—content that is not on the embedding website’s same server—it will direct the browser to retrieve and display content from the Instagram’s server. The HTML instructions that direct a browser to embed an external social media post look something like this:

```
<blockquote class="instagram-media" data-instgrm-captioned data-
instgrm-
permalink="https://www.instagram.com/p/Cso5eUUvWC4/?utm_sourc
e=ig_embed&utm_campaign=loading" data-instgrm-version="14"
style=" background:#FFF; border:0; border-radius:3px; box-shadow:0 0
1px 0 rgba(0,0,0,0.5),0 1px 10px 0 rgba(0,0,0,0.15); margin: 1px; max-
width:540px; min-width:326px; padding:0; width:99.375%; width:-
webkit-calc(100% - 2px); width:calc(100% - 2px);"><div
style="padding:16px;">
<a href="https://www.instagram.com/p/Cso5eUUvWC4/?utm_source=ig_e
mbed&utm_campaign=loading" style=" background:#FFFFFF;
line-height:0; padding:0 0; text-align:center; text-decoration:none;
width:100%;" target="_blank"> <div style=" display: flex; flex-
direction: row; align-items: center;"> <div style="background-color:
#F4F4F4; border-radius: 50%; flex-grow: 0; height: 40px; margin-right:
14px; width: 40px;"></div> <div style="display: flex; flex-direction:
column; flex-grow: 1; justify-content: center;"> <div style="
background-color: #F4F4F4; border-radius: 4px; flex-grow: 0; height:
14px; margin-bottom: 6px; width: 100px;"></div> <div style="
background-color: #F4F4F4; border-radius: 4px; flex-grow: 0; height:
14px; width: 60px;"></div></div></div></div></div><div style="padding: 19%
```

```

0;"></div> <div style="display:block; height:50px; margin:0 auto 12px;
width:50px;"><svg width="50px" height="50px" viewBox="0 0 60 60"
version="1.1"
xmlns="https://www.w3.org/2000/svg"
xmlns:xlink="https://www.w3.org/1999/xlink"><g
stroke="none"
stroke-width="1"
fill="none"
fill-rule="evenodd"><g
transform="translate(-511.000000,
-20.000000)"
fill="#000000"><g><path d="M556.869,30.41. . . <div style="
background-color: #F4F4F4; border-radius: 50%; flex-grow: 0; height:
20px; width: 20px;"></div> <div style=" width: 0; height: 0; border-top:
2px solid transparent; border-left: 6px solid #f4f4f4; border-bottom: 2px
solid transparent; transform: translateX(16px) translateY(-4px)
rotate(30deg)"></div></div><div style="margin-left: auto;"> <div
style=" width: 0px; border-top: 8px solid #F4F4F4; border-right: 8px
solid transparent; transform: translateY(16px);"></div> <div style="
background-color: #F4F4F4; flex-grow: 0; height: 12px; width: 16px;
transform: translateY(-4px);"></div> <div style=" width: 0; height: 0;
border-top: 8px solid #F4F4F4; border-left: 8px solid transparent;
transform: translateY(-4px) translateX(8px);"></div></div></div> <div
style="display: flex; flex-direction: column; flex-grow: 1; justify-
content: center; margin-bottom: 24px;"> <div style=" background-color:
#F4F4F4; border-radius: 4px; flex-grow: 0; height: 14px; margin-
bottom: 6px; width: 224px;"></div> <div style=" background-color:
#F4F4F4; border-radius: 4px; flex-grow: 0; height: 14px; width:
144px;"></div></div></a><p style=" color:#c9c8cd; font-
family:Arial,sans-serif; font-size:14px; line-height:17px; margin-
bottom:0; margin-top:8px; overflow:hidden; padding:8px 0 7px; text-
align:center; text-overflow:ellipsis; white-space:nowrap;"><a
href="https://www.instagram.com/p/Cso5eUUvWC4/?utm_source=ig_e
mbed&utm_campaign=loading" style=" color:#c9c8cd; font-
family:Arial,sans-serif; font-size:14px; font-style:normal; font-
weight:normal; line-height:17px; text-decoration:none;"
target="_blank">A post shared by National Park Service
(@nationalparkservice)</a></p></div></blockquote> <script async
src="//www.instagram.com/embed.js"></script>

```

When the browser follows these HTML instructions, the browser will retrieve the image, caption, and formatting from the host website and display all these elements alongside content from the embedding website. The final product will show the external image “embedded” seamlessly into a third-party website.

As illustrated by the HTML instructions above, embedding is different from merely providing a hyperlink. Hyperlinking gives the URL address where external content is located directly to a user. To access that content, the user must click on the URL to open the linked website in its entirety. By contrast, embedding provides instructions to the *browser*, and the browser automatically retrieves and shows the content from the host website in the format specified by the embedding website. Embedding therefore allows users to see the content itself—not merely the address—on the embedding website without navigating away from the site. Courts have generally held that hyperlinking does not constitute direct infringement. *See, e.g., Online Pol’y Grp. v. Diebold, Inc.*, 337 F. Supp. 2d 1195, 1202 n.12 (N.D. Cal. 2004) (“[H]yperlinking per se does not constitute direct infringement because there is no copying, [but] in some instances there may be a tenable claim of contributory infringement or vicarious liability.”); *MyPlayCity, Inc. v. Conduit Ltd.*, 2012 WL 1107648, at *12 (S.D.N.Y. Mar. 20, 2012) (collecting cases), *adhered to on reconsideration*, 2012 WL 2929392 (S.D.N.Y. July 18, 2012).

From the user’s perspective, embedding is entirely passive: the embedding website directs the user’s own browser to the Instagram account and the Instagram content appears as part of the embedding website’s content. The embedding website appears to the user to have included the copyrighted material in its content. In reality, the embedding website has directed the reader’s browser to retrieve the public Instagram account and juxtapose it on the embedding website. Showing the Instagram content is almost instantaneous.

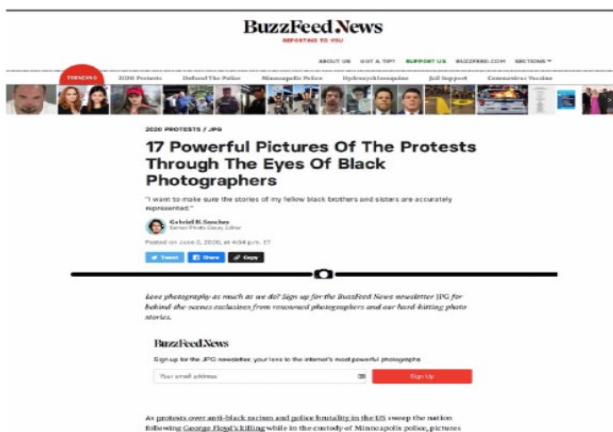
Importantly, the embedding website does not store a copy of the underlying image. Rather, embedding allows

multiple websites to incorporate content stored on a single server simultaneously. The host server can control whether embedding is available to other websites and what image appears at a specific address. The host server can also delete or replace the image. For example, the National Park Service could replace the picture of Joshua Tree at <Joshua_Tree.jpg> with a picture of Canyonlands National Park. So long as the HTML instructions from the third-party site instruct the browser to retrieve the image located at a specific address, the browser will retrieve whatever the host server supplies at that location.

2. This case

Hunley and Brauer are photographers who own the copyrights to several of their works. Both have public Instagram profiles where they post some of their photography.

BuzzFeed News and *Time* are platforms that share news content online. On June 3, 2020, during the Black Lives Matter protests, *BuzzFeed News* published an article titled “17 Powerful Pictures Of The Protests Through The Eyes of Black Photographers.” As part of that article, *BuzzFeed* embedded one of Hunley’s Instagram posts. The embedded image showed Hunley’s Instagram username (called her “handle”) followed by Hunley’s photograph, which featured the hands of a protestor juxtaposed with a line of police officers:



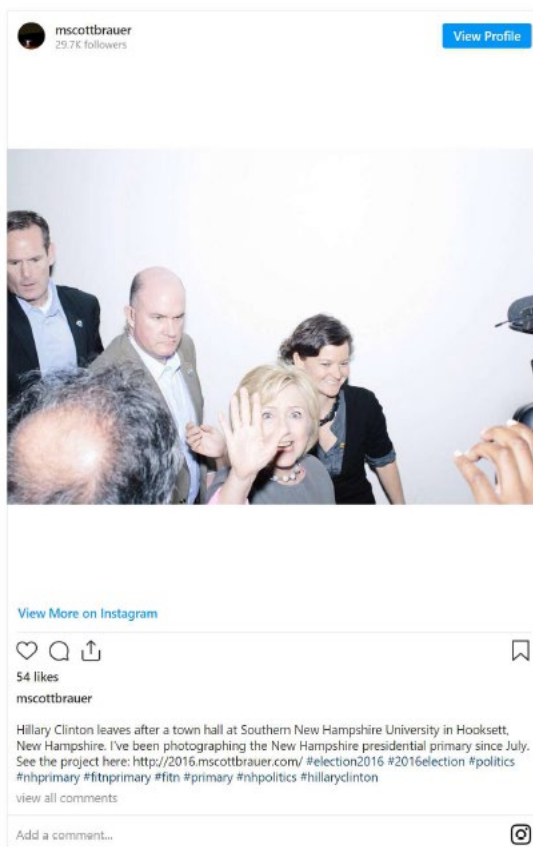
Hunley owns the copyright to this photograph. *BuzzFeed* did not seek a license from Hunley to display this photo as part of its news reporting, nor did *BuzzFeed* seek authorization directly from Instagram.² *BuzzFeed* never

² Websites that embed Instagram's content are bound by Instagram's Platform Policy, and Instagram does not grant third parties a license to users' works. Rather, Instagram maintains that third-party sites have the responsibility to seek permission from the copyright holder as "required

created a copy of or stored the underlying photo. Instead, *BuzzFeed* used HTML, provided by a feature on Instagram’s platform, to embed the Instagram post containing the photo, which made Hunley’s Instagram post appear on *BuzzFeed*’s website alongside *BuzzFeed*’s own content.

Similarly, *Time* published an article on January 31, 2016, titled “These Photographers Are Covering the Presidential Campaign on Instagram.” As part of that article, *Time* embedded one of Brauer’s Instagram posts, featuring a copyrighted photo of candidate Hillary Clinton:

by law.” According to Hunley, no third party obtained permission from Instagram to embed copyrighted content.

M. Scott Brauer

Advertisement

The post showed Brauer's Instagram post in its entirety. *Time* did not seek a license from Brauer or permission from Instagram to display this photo. Because *Time* embedded Brauer's Instagram post containing the photo, *Time* never stored or made a copy of Brauer's photo. Instead, the embedding instructions caused Brauer's Instagram post to appear on *Time*'s website alongside *Time*'s own content.

B. *Proceedings Below*

Hunley and Brauer brought a class action suit against Instagram on behalf of other copyright owners whose work was “caused to be displayed via Instagram’s embedding tool on a third party website without the copyright owner’s consent.” Hunley alleged that Instagram’s embedding tool violated her exclusive display right under the Copyright Act by enabling third-party websites such as *BuzzFeed* and *Time* to display copyrighted photos posted to Instagram. *See* 17 U.S.C. § 106(5). Hunley brought three causes of action against Instagram: inducement of copyright infringement, contributory copyright infringement, and vicarious copyright infringement. Hunley alleged that “Instagram intentionally and brazenly encouraged, aided and induced third party embedd[ing websites] to cause to be displayed copyrighted photos and videos without making any effort to control or stop the rampant infringement” while “knowingly participating in such conduct.”³

Hunley conceded that Instagram is not a direct infringer, and these theories of secondary liability all rely on the existence of direct infringement by *BuzzFeed* and *Time*. *See Perfect 10, Inc. v. Giganews*, 847 F.3d 657, 671 (9th Cir. 2017) (“*Giganews*”). Hunley thus alleged that third-party embedding websites, *BuzzFeed* and *Time*, infringed her display right even though they did not host or store a copy of the underlying image. Hunley sought damages and injunctive relief.

³ Hunley alleged that Instagram made embedding available to create a revenue stream for its photo-sharing platform, and that Instagram “reaps billions of dollars annually” from encouraging third parties to embed Instagram content.

Instagram filed a motion to dismiss, which the district court granted. The district court concluded that our holding in *Perfect 10* precluded relief to Hunley. To violate the public display right, infringers must “display ‘copies’ of the copyrighted work.” 17 U.S.C. § 101. According to the district court, embedding websites that do not “‘store’ an image or video” do not “‘communicate a copy’ of the image or video and thus do[] not violate the copyright owner’s exclusive display right.” See *Perfect 10*, 508 F.3d at 1160–61. Applying *Perfect 10*, the district court explained:

[*BuzzFeed* and *Time*] do not violate Instagram users’ exclusive display rights. Because they do not store the images and videos, they do not “fix” the copyrighted work in any “tangible medium of expression.” Therefore, when they embed the images and videos, they do not display “copies” of the copyrighted work.

And without direct infringement by *BuzzFeed* or *Time*, Instagram could not be held secondarily liable. The district court also rejected Hunley’s arguments that *Perfect 10* was limited to search engines and that *Perfect 10* conflicted with the Supreme Court’s decision in *Aereo*, 573 U.S. 431.

In February 2022, the district court denied Hunley leave to amend because “the deficiency in Hunley’s first two complaints cannot be cured.” Hunley’s amended complaint still alleged that Instagram’s servers—not those of *BuzzFeed* or *Time*—hosted the infringing images. The district court concluded that the “only fact that matters” for infringement purposes is storing the photos on servers, and that because Hunley could not remedy this issue, “amendment would be

futile.” The district court dismissed the action with prejudice, and Hunley timely appealed.

II. JURISDICTION AND STANDARD OF REVIEW

We have jurisdiction pursuant to 28 U.S.C. § 1291, and we review *de novo* the district court’s dismissal under Rule 12(b)(6). *CallerID4u, Inc. v. MCI Commc’ns Servs. Inc.*, 880 F.3d 1048, 1061 (9th Cir. 2018).

III. ANALYSIS

We begin our analysis with the legal framework of the Copyright Act, including our interpretation of the Act in *Perfect 10*. We will then consider Hunley’s legal and policy arguments for limiting the scope of *Perfect 10*. We conclude by applying *Perfect 10* to this case.

A. *The Copyright Act and Perfect 10*

1. The Right of Public Display

The Copyright Act grants authors the exclusive right “to display the copyrighted work publicly.” 17 U.S.C. § 106(5). To infringe this exclusive right to public display, the infringer must “show a copy of [the work], either directly or by means of a film, slide, television image, or any other device or process.” 17 U.S.C. § 101 (definition of “display”). The Copyright Act defines “copies” as “material objects . . . in which a work is fixed by any method now known or later developed, and from which the work can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device.” *Id.* (definition of “Copies”). For copyright purposes, “copy” does not necessarily mean a duplicate of the original, but includes the original itself: “The term ‘copies’ includes the material object . . . in which the work is first fixed.” *Id.* (definition of

“Copies”). And “[a] work is ‘fixed’ in a tangible medium of expression when its embodiment in a copy . . . is sufficiently permanent or stable to permit it to be perceived, reproduced, or otherwise communicated for a period of more than transitory duration.” *Id.* (definition of “fixed”).

The Copyright Act went through significant amending in 1976. Those amendments clarified that the public display right can also be infringed by a transmission. *See* Public Law 94-533 (Oct. 19, 1976). The amended statute states in relevant part:

To perform or display a work “publicly” means

(1) to perform or display it at a place open to the public or at any place where a substantial number of persons outside of a normal circle of a family and its social acquaintances is gathered; or

(2) to transmit or otherwise communicate a performance or display of the work to a place specified by clause (1) or to the public, by means of any device or process, whether the members of the public capable of receiving the performance or display receive it in the same place or in separate places and at the same time or at different times.

17 U.S.C. § 101 (definition of “publicly”). Part (2) of this definition is known as the Transmit Clause. To “transmit” a display means “to communicate it by any device or process whereby images or sounds are received beyond the place from which they are sent.” *Id.* (definition of “transmit”). By

this definition, an internet communication of an image necessarily implicates the Transmit Clause. *Perfect 10*, 508 F.3d at 1161 n.7. A transmitted image is “fixed” for copyright purposes “if a fixation of the work is being made simultaneously with its transmission.” 17 U.S.C. § 101 (definition of “fixed”).

In sum, infringing the exclusive right of public display requires the transmission of a display. For a display to be actionable, it must display a copy. A copy means either an original or a duplicate that is fixed, and fixation requires embodiment in a perceivable format. *See generally* 17 U.S.C. § 101.

2. *Perfect 10* Interprets 17 U.S.C. § 106(5)

In *Perfect 10 v. Amazon, Inc.*, we decided for the first time “when a computer displays a copyrighted work for purposes of section 106(5),” the right to public display. 508 F.3d at 1160. In that case, *Perfect 10*, an online magazine that marketed photos of nude models, sued Amazon and Google for showing *Perfect 10*’s copyrighted images on their websites. *Id.* at 1157. *Perfect 10* alleged that Google infringed its public display right by including pared-down thumbnail images in Google Image Search results and by embedding full-sized images from third-party websites, which posted copyrighted images without permission. *Id.* Google’s embedding feature worked in the following manner:

When a user clicks on a thumbnail image, the user’s browser program interprets HTML instructions on Google’s webpage. Following these instructions, the browser creates a “window”: the infringing image

appeared “in its original context[] on the lower portion of the window on the user’s computer screen[,] framed by information from Google. Google did not host or store the image that filled the bottom part of the screen, nor did Google communicate the images to the user: the browser, following directions from Google, accessed the third-party website and relayed it to the user.

Id. at 1155–57.

We interpreted the Copyright Act’s fixation requirement and found that an image is “fixed in a tangible medium of expression” when it is “embodied (i.e., stored) in a computer’s server, (or hard disk, or other storage device).” *Id.* at 1160 (citing *MAI Sys. Corp. v. Peak Computer, Inc.*, 991 F.2d 511, 517–18 (9th Cir. 1993)). Applying that interpretation, we concluded that a “computer owner shows a copy ‘by means of a . . . device or process’ when the owner uses the computer to fill the computer screen with the photographic image stored on that computer.” *Id.* (quoting 17 U.S.C. § 101. And “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.” *Id.* This requirement that a copy be “fixed in the computer’s memory” has come to be known as the “Server Test.” *See id.* at 1159 (“The district court referred to this test as the ‘server test.’”) (quoting *Perfect 10 v. Google, Inc.*, 416 F. Supp. 2d 828, 838–39 (C.D. Cal. 2006)); *Free Speech Sys., LLC v. Menzel*, 390 F. Supp. 3d 1162, 1171 (N.D. Cal. 2019).

Applying the Server Test to the facts, we concluded that Google’s in-line linking (what we now call embedding) did

not display a “copy” of Perfect 10's copyrighted images as that term is defined in the Copyright Act. *Id.* at 1160–61. Because Google did not store a copy of the full-size images, but merely embedded them and allowed them to be displayed alongside its search results, “Google does not have a copy of the images for purposes of the Copyright Act.” *Id.* Without a copy on its servers, “Google transmits or communicates only an address which directs a user’s browser to the location where a copy of the full-size image is displayed. Google does not communicate a display of the work itself.” *Id.* at 1161 n.7. Although “Google may [have] facilitate[d] the user’s access to infringing images,” we concluded that “such assistance . . . does not constitute direct infringement.” *Id.* at 1161.

B. *Arguments for Limiting the Server Test*

The district court held that *Perfect 10* governed this case. On appeal, as before the district court, Hunley argues that *Perfect 10*’s Server Test does not determine the outcome in this case. First, Hunley argues that the Server Test should only apply to search engines such as Google. Second, Hunley argues that *Perfect 10* is inconsistent with the Copyright Act. Third, Hunley argues that *Perfect 10* conflicts with the Supreme Court’s subsequent decision in *American Broadcasting Co. v. Aereo*, 573 U.S. 431 (2014). Fourth and finally, Hunley argues that there are policy reasons for overruling *Perfect 10*. We disagree with each of these claims, and we will address each in turn.

1. Whether *Perfect 10* should be limited to specific types of websites

Hunley argues that the Server Test should apply only “to search engines or other automated, algorithmic indexing platforms” and should not extend to “content embedded into

commercial websites from social media platforms.” Hunley’s argument finds no support in our law.

Perfect 10 did not restrict the application of the Server Test to a specific type of website, such as search engines. To be sure, in *Perfect 10*, we considered the technical specifications of Google Image Search, including Google’s ability to index third-party websites in its search results. *Perfect 10*, 508 F.3d at 1155. We also noted Google’s reliance on an automated process for searching vast amounts of data: to create such a search engine, Google “automatically accesses thousands of websites . . . and indexes them within a database” and “Google’s computer program selects the advertising automatically by means of an algorithm.” *Id.* at 1155–56. But in articulating the Server Test, we did not rely on the unique context of a search engine. Our holding relied on the “plain language” of the Copyright Act and our own precedent describing when a copy is “fixed” in a tangible medium of expression. *Id.* (citing 17 U.S.C. § 101). We looked to *MAI Sys. Corp. v. Peak Computer, Inc.*, for the conclusion that a digital image is “fixed” when it is stored in a server, hard disk, or other storage device. 991 F.2d 511, 517–18 (9th Cir. 1993). Applying this fixation requirement to the internet infrastructure, we concluded that in the embedding context, a website must store the image on its own server to directly infringe the public display right. *Perfect 10*, 508 F.3d at 1160.

We have subsequently applied the Server Test outside the search-engine context. For example, in *Bell v. Wilmott Storage Servs., LLC*, 12 F.4th 1065 (9th Cir. 2021), a photographer sued a storage-service website over its use of his photo of the Indianapolis skyline. Although the image was not shown directly on Wilmott Storage Services’s

website, it was visible through a “reverse image search.” *Id.* at 1073. Because it was “undisputed” that the infringing photos were stored on Wilmott’s own server, “Wilmott transmitted, and therefore displayed, the Indianapolis photo without Bell’s permission.” We concluded that the storage and display was sufficient to hold Wilmott directly liable under the Copyright Act. *Id.* We have also applied the Server Test to blogs, *see Perfect 10, Inc. v. Google, Inc.*, 653 F.3d 976, 978 (9th Cir. 2011) (noting that “Blogger account holders may upload images from the web onto Google’s server in order to post them on their blogs, or may use a hyperlink to images hosted on other servers.”), and to online bulletin boards, *Evox Prods., LLC v. Verizon Media, Inc.*, No. 21-56046, 2022 WL 17430309, at *1–2 (9th Cir. Dec. 6, 2022) (unpublished) (holding Verizon liable for infringing the display right when it stored the image on its Yahoo Autos and Tumblr servers after its license with copyright owners had expired).

Hunley points out that other circuits have not adopted the Server Test. The statement is true, but of little use to Hunley. At least two circuits have referred to the Server Test without either endorsing or rejecting it. In *Soc’y of Holy Transfiguration Monastery, Inc. v. Gregory*, 689 F.3d 29, 55 (1st Cir. 2012), the First Circuit cited *Perfect 10*’s Server Test when it noted that the infringing images “were embodied in a medium (here, the computer server and internet) where they could be perceived . . . by those who accessed the server.” *Id.* The *Gregory* court declined to adopt or reject the Server Test:

Although the question of whether a computer has “displayed” a copyrighted work may be a difficult one in other contexts, *see, e.g.*,

Perfect 10, 508 F.3d at 1160–62, it is beyond question here that the Archbishop has “displayed” the Works on his website. We need not delineate the outer bounds of the scope of the term “display” where, as here, the fact that the Works were “displayed” on the Archbishop's website is undisputed.

Id. at 55. Similarly, the Seventh Circuit cited with approval *Perfect 10*'s distinction between direct and secondary infringement in *Flava Works, Inc. v. Gunter*, 689 F.3d 754 (7th Cir. 2012), a public performance case. The *Flava Works* court observed that “myVidster is giving web surfers addresses where they can find entertainment.” *Id.* at 761. Citing *Perfect 10* and offering analysis consistent with the Server Test, the court stated:

By listing plays and giving the name and address of the theaters where they are being performed, the *New Yorker* is not performing them. It is not “transmitting or communicating” them. Is myVidster doing anything different? To call the provision of contact information transmission or communication and thus make myVidster a direct infringer would blur the distinction between direct and contributory infringement and by doing so make the provider of such information an infringer even if he didn't know that the work to which he was directing a visitor to his website was copyrighted.

Id. at 761 (citing, *inter alia*, *Perfect 10*, 508 F.3d at 1159–61).

Although no circuit has disapproved of *Perfect 10*, several district courts have either rejected or limited the Server Test. *See, e.g., McGucken v. Newsweek*, 2022 WL 836786 (S.D.N.Y. 2022) (rejecting the Server Test); *Nicklen v. Sinclair Broad. Grp., Inc.*, F. Supp. 3d 188 (S.D.N.Y. 2021) (rejecting the Server Test); *Goldman v. Breitbart*, 302 F. Supp. 3d 585, 586 (S.D.N.Y. 2018) (holding that publishing an embedded tweet featuring Tom Brady was sufficient for direct infringement, even if Twitter did not store or host the infringing image); *Leader's Institute, LLC v. Jackson*, 2017 WL 5629514 (N.D. Tex. Nov. 22, 2017) (“[t]o the extent *Perfect 10* makes actual possession of a copy a necessary condition to violating a copyright owner’s exclusive right to display her copyrighted works, the Court respectfully disagrees with the Ninth Circuit.”).

We have not limited *Perfect 10* to search engines, and it is too late to argue that it is so limited. The application of the Server Test depends on the *method used* for displaying a photo—not the *context* in which the photo is displayed. And the process used by *BuzzFeed* and *Time* to show users third-party Instagram content is the same process used by Google to show users third-party images: embedding. Nothing in *Perfect 10* or the cases following it limits its application to search engines.

2. Whether *Perfect 10* Is inconsistent with the Copyright Act

Hunley argues that applying the Server Test to social media platforms is inconsistent with the Copyright Act’s statutory scheme. Hunley claims that the Server Test conflates the copyright holder’s exclusive right to display a work with his exclusive right to reproduce the work. Specifically, Hunley contends that after *Perfect 10* an

infringer must violate the copyright holder’s reproduction right before the display right can be violated. This, Hunley says, renders portions of the Copyright Act superfluous or insignificant. *See* 17 U.S.C. § 106(1), (3). Hunley also claims that the Server Test cannot be reconciled with other provisions of the Copyright Act that prohibit transmissions by a party, whether or not the party possesses or controls a copy of the work allegedly infringed. And Hunley argues that the Server Test is inconsistent with other provisions related to “secondary transmissions of a performance or display.” 17 U.S.C. § 111; *see also id.* § 118–19. According to Hunley, “The Server Test, applied to a social media platform, contains an insupportable assumption that a transmission can have only one actionable source, and that such source must only be the place where the physical copy of the work is hosted.”

We will not consider these arguments in any detail because they are foreclosed by *Perfect 10*. Whatever merit these arguments might have in other contexts, *Perfect 10* states the rule for infringing the public display right using embedding. *See, e.g., Perfect 10*, 508 F.3d at 1162 (discussing copies “in the electronic context”). In *Perfect 10*, we did not address the precise arguments Hunley now presses, but we carefully considered display and distribution rights. *See id.* at 1159–63. Even if we thought, in retrospect, that *Perfect 10* created some inconsistencies with other provisions of the Copyright Act, we are not free to overrule *Perfect 10* outside of an en banc proceeding unless there has been a change in the statute or an intervening Supreme Court decision. *See Langere v. Verizon Wireless Servs., LLC*, 983 F.3d 1115, 1121 (9th Cir. 2020). For the reasons described *infra*, we find no such intervening authority.

We have a similar response to Hunley’s arguments concerning the Copyright Act’s legislative history. Hunley identified various passages of legislative history from 1965, 1967, and 1976 to show that *Perfect 10* took an unnecessarily narrow view of the meaning of “display.” We have already given the statute a definitive reading in *Perfect 10*, and we will not revisit a decision in light of materials available at the time of the decision. The Act’s legislative history is not law. See *Nw. Env’t Def. Ctr. v. Bonneville Power Admin.*, 477 F.3d 668, 684 (9th Cir. 2007). If we look to legislative history at all, we will only recur to it as an aid to understanding an ambiguous text. See *Haro v. City of Los Angeles*, 745 F.3d 1249, 1257 (9th Cir. 2014). Here, however, even Hunley has argued that “the Copyright Act is not ambiguous,” because Hunley claims that *Perfect 10* is unambiguously wrong and that the legislative history confirms it. If Hunley believes there is an irreconcilable disjunct between *Perfect 10* and some *prior* authority—whether that is a prior decision of this court, a statute not considered by the prior panel, or legislative history—the proper procedure is to seek rehearing en banc.

3. Whether *Perfect 10* is inconsistent with *Aereo*

Finally, Hunley argues that *Perfect 10* has been effectively overturned because it conflicts with the Supreme Court’s decision in *American Broadcasting Company v. Aereo*, 573 U.S. 431 (2014). In *Aereo*, ABC and other public broadcasting companies, television producers, marketers, and distributors (“the broadcasters”) sued Aereo, an equipment provider that offered a subscription to stream public broadcast television simultaneously over the internet. *Id.* at 436. Subscribers visited Aereo’s website to select shows from local programming. *Id.* Aereo dedicated a specific antenna to each subscriber, and the server tuned the

antenna to the selected over-the-air broadcast. *Id.* Aereo’s transcoder translated the signals and transmitted them to the subscriber over the internet. *Id.* Aereo saved the data “in a subscriber-specific folder on Aereo’s hard drive.” *Id.* At the time of the suit, Aereo did not own any copyrights in the broadcasts, nor did it possess “a license from the copyright owners to perform those works publicly.” *Id.* The subscriber received the streamed transmission “a mere few seconds behind the over-the-air broadcast.” *Id.* at 437. The broadcasters brought suit against Aereo, alleging that Aereo infringed the broadcaster’s exclusive right “to perform the copyrighted work publicly.” 17 U.S.C. § 106(4).

The infringement analysis required the Court to construe the Transmit Clause. *Id.* § 101 (definition (2) of “publicly”) (“to transmit or otherwise communicate a performance or display of the work . . . by means of any device or process . . .”). The Court considered whether Aereo performed publicly within the meaning of the Copyright Act. *Aereo*, 537 U.S. at 438. The Court first concluded that Aereo “performed.” As amended in 1976, the Copyright Act “clarifie[d] that to ‘perform’ an audiovisual work means ‘to show its image in any sequence or to make the sounds audible.’” *Id.* at 441 (quoting 17 U.S.C. § 101). The Court held that “both the broadcaster *and* the viewer of a television program ‘perform,’ because they both show the program’s images and make audible the program’s sounds.” *Id.* The Court concluded: “Aereo is not simply an equipment provider. Rather, Aereo, and not just its subscribers, ‘perform[s]’ or ‘transmit[s].’” *Id.* (alteration in original). The Court noted that “[i]n other cases involving different kinds of service or technology providers, a user’s involvement in the operation of the provider’s equipment and selection of the content transmitted may well bear on

whether the provider performs within the meaning of the Act.” *Id.* at 444.

Hunley proposes two inconsistencies between *Perfect 10* and *Aereo*: First, Hunley claims that the performance right, which was at issue in *Aereo*, “has equal value and weight as the display right” at issue in *Perfect 10*; in fact, Hunley argues that the two rights can be “easily [] interchanged.” Hunley reasons that because the performance and display rights are both “exclusive,” 17 U.S.C. § 106(4),(5), Instagram must be liable because *Aereo* was liable. Second, Hunley argues that “it is the practical, functional perspective of the public viewer, and not hyper technicalities, that must determine whether a particular mode of content or delivery system is infringing or not.” *See Aereo*, 573 U.S. at 443–44. We find both arguments unpersuasive.

(a). *Differences between the performance and the display right.* The Copyright Act grants independent, exclusive rights “to perform . . . [and] to display [a] copyrighted work.” 17 U.S.C. § 106(4), (5). The Act’s definition of “display” means “to show a copy” of the underlying work. To “perform” means “to recite, render, play, dance or act it . . . or . . . to show its images.” *Compare* 17 U.S.C. § 101 (definition of “display”) *with id.* (definition of “perform”). Both the right to display and the right to perform can be infringed by transmission: the Transmit Clause expanded the definition of “perform[ing] or display[ing] a work ‘publicly’” to include “transmi[ssion] or other[] communicat[ion of] a performance or display of the work . . . by means of any device or process.” *Id.* § 101 (definition of “To perform or display a work ‘publicly’”).

However, infringing the public display right requires an underlying copy. By definition, displaying a work publicly

requires that the infringer display a copy of the work, *id.* § 101 (definition of “display”); and transmission of a display means that someone has transmitted a copy of the work “to the public.” *Id.* (definition of “To perform or display a work ‘publicly’”). However, to infringe the public performance right, the infringer need not show or perform a copy of the underlying work. *Id.* § 101 (definition of “perform”).

This difference between these two rights are significant in this case. *Perfect 10* and *Aereo* deal with separate provisions of the Copyright Act—*Perfect 10* addressed the public display right, and *Aereo* concerned the public performance right. In *Perfect 10*, we analyzed what it meant to publicly display a copy in the electronic context. *See Perfect 10*, 508 F.3d at 1161. By contrast, in *Aereo* the Court did not address what it means to transmit a copy, because the public performance right has no such requirement. *See Aereo*, 573 U.S. at 439–44. In other words, regardless of what *Aereo* said about retransmission of licensed works, *Perfect 10* still forecloses liability to Hunley because it answered a predicate question: whether embedding constitutes “display” of a “copy.” *Perfect 10*, 508 F.3d at 1160. *Aereo* may have clarified who is liable for retransmitting or providing equipment to facilitate access to a display—but unless an underlying “copy” of the work is being transmitted, there is no direct infringement of the exclusive display right. Thus, *Perfect 10* forecloses Hunley’s claims, even in light of *Aereo*.

There is an additional reason we cannot find liability for Instagram here. We held, prior to *Aereo*, that infringement under the Copyright Act requires proof of volitional conduct, the Copyright Act’s version of proximate cause. *See Fox Broad. Co., Inc. v. Dish Network LLC*, 747 F.3d 1060, 1067

(9th Cir. 2013); *Kelly v. Arriba Soft Corp.*, 336 F.3d 811, 817 (9th Cir. 2003) (“To establish a claim of copyright infringement by reproduction, the plaintiff must show . . . copying by the defendant.”). And we are not alone, indeed, “every circuit to address this issue has adopted some version of . . . the volitional-conduct requirement.” *BWP Media USA, Inc. v. T&S Software Assocs., Inc.*, 852 F.3d 436, 440 (5th Cir. 2017) (citing cases). The Court in *Aereo* did not address volitional conduct as such, although Justice Scalia did so in his dissent. *See Aereo*, 573 U.S. at 453 (Scalia, J., dissenting). But the Court did distinguish between those who engage in activities and may be said to “perform” and those who engage in passive activities such as “merely suppl[ying] equipment that allows others to do so.” *Id.* at 438–39. In any event, *Perfect 10* was bound to apply our volitional-conduct analysis. When we applied our requirement that the infringer be the direct cause of the infringement, we concluded that the entity providing access to infringing content did not directly infringe, but the websites who copied and displayed the content did. *Perfect 10*, 508 F.3d at 1160.

Post-*Aereo*, we have continued to require proof of “causation [as] an element of a direct infringement claim.” *Giganews*, 847 F.3d at 666. In such cases we have taken account of *Aereo* and concluded that our volitional conduct requirement is “consistent with the *Aereo* majority opinion,” and thus remains “intact” in this circuit. *Id.* at 667; *see Bell v. Wilmott Storage Servs., LLC*, 12 F.4th 1065, 1081–82 (9th Cir. 2021); *Oracle Am., Inc. v. Hewlett Packard Enter. Co.*, 971 F.3d 1042, 1053 (9th Cir. 2020); *VHT, Inc. v. Zillow Grp., Inc.*, 918 F.3d 723, 731 (9th Cir. 2019). Our volitional conduct requirement draws a distinction between direct and secondary infringement that would likely foreclose direct

liability for third-party embedders. And without direct infringement, Hunley’s secondary liability theories all fail. *See Oracle Am., Inc.*, 971 F.3d at 1050.

(b). *The significance of user perception.* Hunley and amici argue that viewer perception of a copyrighted image on a third-party website is sufficient to establish direct infringement. According to Hunley, because users perceive the same image whether the third-party website duplicates the photo on its own server or embeds the photo from Instagram, both instances should constitute direct infringement. Hunley points to the following passage from *Aereo*:

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. 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.”

Aereo, 573 U.S. at 444. Hunley argues that *Aereo* held that “[w]hat happens behind the curtain is . . . irrelevant to the consuming public, and so too should it be irrelevant in the eyes of the law.”

We are reluctant to read too much into this passage. The Court commented on user perception to point out the

similarities between Aereo and traditional cable companies. These similarities mattered because the 1976 Copyright Amendments specifically targeted cable broadcasts. *See Aereo*, 573 U.S. at 433. But the Court did not rely on user perception alone to determine whether Aereo performed. *See id.* The Court has not converted user perception into a separate and independent rule of decision.

Furthermore, *Aereo*'s discussion of user perception is consistent with our pre-*Perfect 10* law regarding user perception. In *N.Y. Times Co. v. Tasini*, authors who provided articles to newspapers and magazines sued the publishers when these articles were subsequently published in online databases. 533 U.S. 483 (2001). The Court held that the fact that “the Articles [were] presented to, and perceptible by, the user of the Databases” was important to “determining whether the Articles have been reproduced and distributed ‘as part of’ . . . the collective works.” *Id.* at 499. The Court’s statement in *Tasini* is unremarkable, however. In any “display” covered by the Copyright Act, the work must be “perceptible” to the user. *See* 17 U.S.C. § 101 (“‘Copies’” are material objects . . . from which the work can be perceived”). Moreover, the *Tasini* court declined to resolve the different issue of public display. *Id.* at 498 n.8 (“[w]e do not reach an issue the Register of Copyrights has argued vigorously. The Register maintains that the Databases publicly ‘display’ the Articles. . .”). This is not sufficient “*intervening* authority to cast doubt on this Court’s prior authority.” *Lair*, 697 F.3d at 1207 (citations omitted). We were well aware of *Tasini* when we decided *Perfect 10*, and we have continued to read *Tasini* to be consistent with *Perfect 10*. *See Perfect 10*, 508 F.3d at 1162 (discussing *Tasini*); *see also ABS Ent., Inc. v. CBS Corp.*, 908 F.3d 405, 422 (9th Cir. 2018) (“*Tasini* does not say that a mere

migration of a work into a new medium justifies an independent copyright.”); *Giganews*, 847 F.3d at 669 (*Tasini* “does not establish that Giganews or Livewire directly violated Perfect 10’s distribution rights by selling access to infringing images on Giganews’s servers”)

Finally, *Perfect 10* crafted our Server Test out of the Copyright Act’s fixation requirement—not the perceptibility requirement. See *Perfect 10*, 508 F.3d at 1160 (“A photographic image is a work that is ‘fixed in a tangible medium of expression,’ for purposes of the Copyright Act, when embodied (i.e., stored) in a computer’s server (or hard disk, or other storage device).”). *Perfect 10* did not scratch on a blank slate; it built on our prior caselaw interpreting the fixation requirement. See *id.* (“The image stored in the computer is the “copy” of the work for purposes of copyright law.”). Our caselaw regarding computerized copyright infringement relied on user perception in a limited circumstance: to determine whether copies were “fixed” under the Copyright Act. 17 U.S.C. § 101 (definition of “fixed”); see *MAI Sys. Corp.*, 991 F.2d at 517–18. Because the public display right requires that an infringer “display a copy,” user perception is relevant to whether a copy is “fixed,” but not sufficient to establish direct infringement absent the underlying display of a fixed copy. See generally 17 U.S.C. §101.

Considered together, our cases conclude that user perception is relevant to the fixation requirement—as mandated by the Copyright Act—but not determinative as to whether the display right has been infringed. Thus, the user perception analysis is not “clearly irreconcilable” with intervening authority. See *Gammie*, 335 F.3d at 893.

C. *Policy Concerns*

Hunley, Instagram, and their amici have peppered us with policy reasons to uphold or overturn the Server Test. Their concerns are serious and well argued. Hunley argues that the Server Test allows embedders to circumvent the rights of copyright holders. Amici for Hunley argue that the Server Test is a bad policy judgment because it destroys the licensing market for photographers. On the other hand, amici for Instagram argue that embedding is a necessary part of the open internet that promotes innovation. As citizens and internet users, we too are concerned with the various tensions in the law and the implications of our decisions, but we are not the policymakers.

If Hunley disagrees with our *legal* interpretation—either because our reading of *Perfect 10* is wrong or because *Perfect 10* itself was wrongly decided—Hunley can petition for en banc review to correct our mistakes. But we have no right “to judge the validity of those [] claims or to foresee the path of future technological development.” *Aereo*, 573 U.S. at 463 (Scalia, J., dissenting). Most obviously, Hunley can seek further review in the Supreme Court or legislative clarification in Congress.

Finally, we note that the Server Test applies only to embedding in its current technological format, which involves a single host server storing and transmitting an image, with an embedding website that directs the browser to retrieve and display that same underlying image from the host server. *Perfect 10* does not foreclose other avenues to relief for future technologies that configure retransmission in a new way. We cannot foreclose the possibility that some future panel may conclude that there are ways to display a copy *other* than to store it on a server. But it is not our role

to craft a policy solution and rewrite the law to our tastes. We can only apply the law as it currently exists.

D. Application of the Server Test to Hunley

Having rejected Hunley’s legal and policy challenges to *Perfect 10*, we now apply the Server Test to the facts of this case.

By posting photographs to her public Instagram profile, Hunley stored a copy of those images on Instagram’s servers. By displaying Hunley’s images, Instagram did not directly infringe Hunley’s exclusive display right because Instagram had a nonexclusive sublicense to display these photos.

To assert secondary liability claims against Instagram, Hunley must make the threshold showing “that there has been direct infringement by third parties.” *Oracle Am., Inc.*, 971 F.3d at 1050. *Time* and *BuzzFeed* wrote the HTML instructions that caused browsers to show Hunley and Brauer’s photographs on *Time* and *BuzzFeed* websites. However, under *Perfect 10* these instructions did not constitute “display [of] a copy.” *See Perfect 10*, 508 F.3d at 1160–61. Rather, *Instagram* displayed a copy of the copyrighted works Hunley posted on its platform, and the web browser formatted and displayed the images alongside additional content from *Time* and *BuzzFeed*. Because *BuzzFeed* and *Time* embedded—but did not store—the underlying copyrighted photographs, they are not guilty of direct infringement. *See Perfect 10*, 508 F.3d at 1160–61. Without direct infringement, Hunley cannot prevail on any theory of secondary liability. *See Giganews*, 847 F.3d at 671. As a result, Instagram is not secondarily liable (under any theory) for the resulting display. The district court did not err in dismissing this case on the basis of the Server Test.

IV. CONCLUSION

For the foregoing reasons, we find no error in the judgment of the district court.

AFFIRMED.