

United States Court of Appeals  
FOR THE DISTRICT OF COLUMBIA CIRCUIT

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Argued September 12, 2022      Decided December 6, 2022

No. 21-5195

MATTHEW D. GREEN, ET AL.,  
APPELLANTS

v.

UNITED STATES DEPARTMENT OF JUSTICE, ET AL.,  
APPELLEES

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Appeal from the United States District Court  
for the District of Columbia  
(No. 1:16-cv-01492)

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*Corynne McSherry* argued the cause for appellants. With her on the briefs were *Kit Walsh*, *Brian M. Willen*, and *Lauren Gallo White*.

*Rebecca Tushnet* and *Catherine Crump* were on the brief for *amici curiae* Copyright Scholars Pamela Samuelson and Rebecca Tushnet in support of appellants.

*Jack I. Lerner* was on the brief for *amici curiae* Kartemquin Educational Films and International Documentary Association in support of appellants.

*Jonathan Skinner-Thompson* was on the brief for *amicus curiae* Accessibility, Security, and Repair Fair Users in support of appellants.

*Daniel Tenny*, Attorney, U.S. Department of Justice, argued the cause for appellees. With him on the brief were *Brian M. Boynton*, Principal Deputy Assistant Attorney General, and *Scott R. McIntosh*, Attorney. *Sonia M. Carson* and *Adam C. Jed*, Attorneys, entered appearances.

*Eleanor M. Lackman* and *John Matthew DeWeese Williams* were on the brief for *amici curiae* Association of American Publishers, Inc. et al. in support of appellees.

*David Jonathan Taylor* was on the brief for *amici curiae* DVD Copy Control Association, Inc. et al. in support of appellees.

Before: WALKER, *Circuit Judge*, and ROGERS and TATEL, *Senior Circuit Judges*.

Opinion for the Court filed by *Senior Circuit Judge* TATEL.

TATEL, *Senior Circuit Judge*: In this digital age, when content creators choose to make their copyrighted materials—like books, movies, and music—available online, they employ computer code to block unauthorized access, copying, and use. To fortify the protection offered by that code, Congress enacted the Digital Millennium Copyright Act, which makes it unlawful to bypass such technological measures. The question in this case, which comes to us at the preliminary injunction stage, is whether the statute is likely to violate the First Amendment rights of two individuals who write computer code designed to circumvent those measures. The district court answered no, and we agree.

**I.**

In the 1990s, a growing number of digital tools facilitated “massive piracy” by increasing “the ease with which digital works [could] be copied and distributed worldwide virtually instantaneously.” S. Rep. No. 105-190, at 8 (1996). Congress feared that “copyright owners [would] hesitate to make their works readily available on the Internet without reasonable assurances that they [would] be protected.” *Id.* In order to provide that protection and adapt copyright law to the digital age, Congress enacted the Digital Millennium Copyright Act (DMCA), 17 U.S.C. §§ 1201 et seq., which “backed with legal sanctions the efforts of copyright owners to protect their works from piracy behind digital walls such as encryption codes or password protections.” *Universal City Studios, Inc. v. Corley*, 273 F.3d 429, 435 (2d Cir. 2001).

The DMCA accomplishes its goal through two principal provisions. First, the statute’s anticircumvention provision prohibits “circumvent[ing] a technological measure that effectively controls access to a [copyrighted work].” 17 U.S.C. § 1201(a)(1)(A). A “technological measure,” also called a “technological protection measure,” effectively controls access to a work if it, “in the ordinary course of its operation, requires the application of information, or a process or a treatment, with the authority of the copyright owner, to gain access to the work.” *Id.* § 1201(a)(3)(B). For example, Netflix requires a password to access its digital movie catalog, and electronic books contain code that prevents readers from copying the book into another format. Circumvention occurs when someone descrambles a scrambled work, decrypts an encrypted work, or otherwise avoids, bypasses, removes, deactivates, or impairs a technological measure, without authority from the copyright owner. *Id.* § 1201(a)(3)(A). The statute’s second principal provision—the antitrafficking provision—works

together with the anticircumvention provision to target the technological tools that facilitate circumvention. It prohibits “manufacturing, importing, offering to the public, providing, or otherwise trafficking in any technology, product, service, device, component, or part thereof” if it (1) “is primarily designed or produced for the purpose of circumventing a technological measure that effectively controls access to a [copyrighted] work;” (2) “has only limited commercially significant purpose or use other than to circumvent;” or (3) “is marketed . . . for use in circumventing.” *Id.* §§ 1201(a)(2)(A)–(C) (cleaned up). Those who violate either the anticircumvention or antitrafficking provision are subject to civil actions and criminal sanctions. *Id.* § 1203(a).

In order to ensure that the DMCA does not interfere with the fair use of copyrighted digital content, Congress included a “‘fail-safe’ mechanism.” H.R. Rep. No. 105-551 (Part 2), at 36 (1998). Every three years “the Librarian of Congress, upon the recommendation of the Register of Copyrights,” determines in a rulemaking proceeding “whether persons who are users of a copyrighted work are, or are likely to be in the succeeding 3-year period, adversely affected by [the anticircumvention provision].” 17 U.S.C. § 1201(a)(1)(C). If so, the statute instructs the Librarian to grant an exemption for such uses for a three-year period. *Id.* § 1201(a)(1)(D).

The Register also monitors “changes to the copyright system spurred by digital technologies” and their impact on the DMCA. U.S. Copyright Office, *Section 1201 of Title 17* i (2017). In 2017, in order to address “deep and widespread debate among copyright stakeholders” regarding the continued value of the statute, the Register conducted a “comprehensive public study on the operation of section 1201.” *Id.* at ii–iii. Emphasizing that “digital [content] marketplace[s] . . . succeed only if copyright owners have the legal right to prohibit persons

from evading electronic paywalls or other technical measures,” the Register declined to recommend “broad changes” to the DMCA. *Id.* at 44, 152. “[T]he statute’s overall structure and scope,” it concluded, “remain sound.” *Id.* at iii.

Plaintiff Matthew Green, a security researcher and computer science professor at Johns Hopkins University, wants to publish an academic book “to instruct readers in the methods of security research,” which will include “examples of code capable of bypassing security measures.” Green Decl. ¶ 20. He is concerned that including “instructions in both English and in software code” for “circumvent[ing] technological protection measures” would likely violate the DMCA. *Id.* ¶¶ 20–21. Plaintiff Andrew “bunnie” Huang, an inventor and electrical engineer, wants to create and sell a device called “NeTVCR.” Huang Decl. ¶ 12. His device contains computer code capable of circumventing High-Bandwidth Digital Content Protection, a technological protection measure that prevents digital content from being copied or played on unauthorized devices. *Id.* ¶¶ 4–6, 12. He also intends to publish that computer code to “communicate to others how the technology works and encourage them to discuss edits to improve the code.” *Id.* ¶ 16. Huang fears that distribution of the code contained in his NeTVCR device “could [risk] prosecut[ion] under Section 1201(a)(1) or (a)(2).” *Id.* ¶ 11.

Claiming that the code they write qualifies as speech protected by the First Amendment, Green and Huang brought a pre-enforcement action challenging the DMCA on facial and as-applied First Amendment grounds. The government moved to dismiss all claims, and the district court partially granted the motion. Concluding that Green and Huang failed to allege “facts sufficient to state a claim that DMCA provisions are unconstitutionally overbroad because they ‘have failed to identify any significant difference’” between their facial and

as-applied challenges, the district court dismissed all but the as-applied First Amendment claims. *Green v. DOJ*, 392 F. Supp. 3d 68, 88 (D.D.C. 2019) (quoting *City Council Los Angeles v. Taxpayers for Vincent*, 466 U.S. 789, 802 (1984)). Three months later, Green and Huang filed a preliminary injunction motion, seeking relief for their surviving as-applied claims as well as their dismissed facial claims. The district court summarily denied an injunction for the dismissed claims. As to Green’s as-applied challenge, the district court concluded that his planned publication was unlikely to implicate section 1201(a) because the book would be designed, used, and marketed for educational purposes rather than for the purpose of circumvention. The district court then addressed Huang’s as-applied claim. Favorably citing the Second Circuit’s analysis in *Universal City Studios, Inc. v. Corley*—the only decision by a circuit court to have squarely addressed the constitutionality of the DMCA—the district court found that Huang was unlikely to succeed on his as-applied claim and denied him preliminary injunctive relief. Green and Huang now appeal the district court’s dismissal of their facial challenge and denial of injunctive relief.

## II.

We start with two preliminary issues: subject-matter jurisdiction and standing.

First, the government contends that Green and Huang’s facial challenge is not properly before us because the district court denied preliminary injunctive relief “based [only] on plaintiffs’ as-applied challenge.” Appellees’ Br. 29. There is no question that the usual route to appeal—28 U.S.C. § 1291, which gives this court jurisdiction of timely appealed “final decisions”—is unavailable here. The district court dismissed only Green and Huang’s facial challenge, “clear[ly] signal[ing]

that it intended [their as-applied claims] to continue.” *Attias v. Carefirst, Inc.*, 865 F.3d 620, 625 (D.C. Cir. 2017). Because the district court’s order “le[ft] . . . more for the [district] court to do,” it was not final and could not yet be appealed. *North American Butterfly Association v. Wolf*, 977 F.3d 1244, 1253 (D.C. Cir. 2020) (internal quotation marks omitted).

Green and Huang nonetheless argue that we have jurisdiction because the district court’s dismissal was “inextricably bound to the subsequent preliminary injunction ruling.” Appellants’ Reply Br. 3. It is true that “[o]n interlocutory review of petitions for injunctive relief, this court may reach the merits of a claim inextricably bound up with the issues on appeal.” *Arkansas Dairy Cooperative Association v. Department of Agriculture*, 573 F.3d 815, 832 (D.C. Cir. 2009) (internal quotation marks omitted). We do so to determine “whether there is any insuperable objection, in point of jurisdiction or merits, to the maintenance of [the case], and if so, to direct a final decree dismissing it.” *Id.* at 833 (quoting *Munaf v. Geren*, 553 U.S. 674, 691 (2008)). No such insuperable objection is present here. Plaintiffs need not succeed on their facial First Amendment challenge to succeed on their as-applied claims. *See Hodge v. Talkin*, 799 F.3d 1145, 1156 (D.C. Cir. 2015). Declaring the DMCA facially unconstitutional would resolve Green and Huang’s as-applied claims, but not so in reverse, ensuring that their as-applied claims remain anything but inextricably bound to their facial challenge. We therefore lack jurisdiction over Green and Huang’s facial challenge.

We next consider standing. A party seeking a preliminary injunction “must show a substantial likelihood of standing.” *Food & Water Watch, Inc. v. Vilsack*, 808 F.3d 905, 913 (D.C. Cir. 2015) (internal quotation marks omitted). In pre-enforcement challenges, like this one, “a plaintiff satisfies the

injury-in-fact [standing] requirement where he alleges ‘an intention to engage in a course of conduct arguably affected with a constitutional interest, but proscribed by a statute, and there exists a credible threat of prosecution thereunder.’” *Susan B. Anthony List v. Driehaus*, 573 U.S. 149, 159 (2014) (quoting *Babbitt v. Farm Workers*, 442 U.S. 289, 298 (1979)). Green seeks to publish an academic book “to instruct readers in the methods of security research, including . . . examples of code capable of bypassing security measures, for readers to learn from, as well as instructions written in English.” Green Decl. ¶ 20. He plans to “offer [his] book for sale via typical distribution channels,” highlighting “the detailed information it contains about bypassing security measures,” and “to receive royalties on its sale.” *Id.* ¶¶ 24–25. Because Green intends to provide code able to circumvent technological protection measures, he believes the book would likely violate the antitrafficking provision. At oral argument, however, government counsel made quite clear that in its view, Green’s proposed course of conduct would not run afoul of the DMCA. Asked by the court whether “[i]t’s legal for Green to publish his book even if the book includes enough code to allow someone to piece together a circumvention technology,” counsel replied, “[t]hat is correct.” Oral Arg. Rec. 33.50–34.11. The government’s concession ends any “credible threat of prosecution” against Green, leaving him without standing to obtain a preliminary injunction. *See Food & Water Watch*, 808 F.3d at 913 (“An inability to establish a substantial likelihood of standing requires denial of the motion for preliminary injunction.”). We shall therefore affirm the district court’s denial of a preliminary injunction for Green.

### III.

Confident of our jurisdiction, we turn to the merits, asking whether Huang’s as-applied claim meets the requirements for



a preliminary injunction: that “he is likely to succeed on the merits, that he is likely to suffer irreparable harm in the absence of preliminary relief, that the balance of equities tips in his favor, and that an injunction is in the public interest.” *Winter v. NRDC*, 555 U.S. 7, 20 (2008). Given that this case presents only questions of law, our review is de novo. *In re Navy Chaplaincy*, 697 F.3d 1171, 1178 (D.C. Cir. 2012) (explaining that “[w]e review the district court’s legal conclusions de novo” in appeals from denials of preliminary injunctions).

“In First Amendment cases, the likelihood of success will often be the determinative factor in the preliminary injunction analysis.” *Pursuing America’s Greatness v. FEC*, 831 F.3d 500, 511 (D.C. Cir. 2016) (internal quotation marks omitted). To succeed on the merits, Huang must show that the DMCA is unconstitutional as applied to his alleged speech activity. *Edwards v. District of Columbia*, 755 F.3d 996, 1001 (D.C. Cir. 2014). We analyze as-applied First Amendment claims in three steps. First, we “decide whether [the activity at issue] is speech protected by the First Amendment.” *Cornelius v. NAACP Legal Defense & Education Fund, Inc.*, 473 U.S. 788, 797 (1985). Second, we determine whether the regulation at issue is content based or content neutral, *i.e.*, “if it ‘applies to particular speech because of the topic discussed or the idea or message expressed.’” *City of Austin v. Reagan National Advertising of Austin, LLC*, 142 S. Ct. 1464, 1471 (2022) (quoting *Reed v. Town of Gilbert*, 576 U.S. 155, 163 (2015)). This sets the level of scrutiny we apply at the third step: strict scrutiny for content-based statutes and intermediate scrutiny for content-neutral statutes. *Turner Broadcasting System, Inc. v. FCC*, 512 U.S. 622, 641–42 (1994).

Step one gives us no trouble. Huang wants to sell his NeTVCR device. The device contains “code designed to circumvent certain access controls,” which Huang will also

publish so that those who own an earlier iteration of his device may upgrade it, and the public may edit and improve his code. Appellants’ Reply Br. 10; Oral Arg. Rec. 13.15–13.40. According to Huang, writing and communicating computer code capable of circumventing technological protection measures qualifies as First Amendment protected speech. But we have no need to address that question because the government never challenged that proposition in its brief, and at oral argument it conceded that “if you write code so somebody can read it,” it is “expressive” speech. Oral Arg. Rec. 48:32–48:55. All of our sister circuits to have addressed the issue agree. *See, e.g., Corley*, 273 F.3d at 448 (“Instructions that communicate information comprehensible to a human qualify as speech whether the instructions are designed for execution by a computer or a human (or both).”); *Junger v. Daley*, 209 F.3d 481, 485 (6th Cir. 2000) (holding that “[b]ecause computer source code is an expressive means for the exchange of information and ideas about computer programming,” it is protected by the First Amendment).

We turn then to whether the DMCA “‘target[s] speech based on its communicative content’—that is, if it ‘applies to particular speech because of the topic discussed or the idea or message expressed.’” *See City of Austin*, 142 S. Ct. at 1471 (quoting *Reed*, 576 U.S. at 163). It does not. The DMCA’s anticircumvention and antitrafficking provisions target not the expressive content of computer code, but rather the act of circumvention and the provision of circumvention-enabling tools. *See* 17 U.S.C. § 1201(a)(1)(A) (“No person shall circumvent a technological measure that effectively controls access to a [copyrighted work.]”); *id.* § 1201(a)(2) (“No person shall manufacture, import, offer to the public, provide, or otherwise traffic in any [circumvention technology or product.]”). To be sure, the DMCA may incidentally make it more difficult to express things with computer code if that code

also facilitates circumvention, but that expressive activity is not the statute’s target. As the Second Circuit explained in *Corley*, the DMCA “is [not] concerned with whatever capacity [code] might have for conveying information to a human being.” 273 F.3d at 454. Rather, it applies to code “solely because of its capacity to instruct a computer.” *Id.*

The Supreme Court’s recent free speech case, *City of Austin v. Reagan National Advertising of Austin, LLC*, 142 S. Ct. 1464 (2022), is virtually dispositive. There, the Court rejected a First Amendment challenge to a city ordinance that distinguished between signs advertising products not located near the sign (prohibited) and signs advertising products located near the sign (permitted). Rejecting the idea that “a regulation cannot be content neutral if it requires reading the sign at issue,” the Court emphasized that the ordinance cared about the expressive message on a sign “only to the extent that it informs the sign’s relative location”; “[a] sign’s substantive message itself is irrelevant.” *Id.* at 1471–73.

The same logic applies here. Although the DMCA requires reading computer code to determine what digital act the code carries out, it is nonetheless content neutral because, in the words of *City of Austin*, it cares about the expressive message in the code “only to the extent that it informs” the code’s function. *Id.* at 1473. The code’s “substantive message itself is irrelevant.” *Id.* at 1472. Indeed, this case is easier than *City of Austin* because the sign ordinance regulated speech as speech, whereas the DMCA looks only to the code’s function, not its expressive content. *See Reed*, 576 U.S. at 164 (quoting *Ward v. Rock Against Racism*, 491 U.S. 781, 791 (1989)) (explaining that content-neutral laws can be “justified without reference to the content of the regulated speech”). Accordingly, the DMCA is content neutral and subject to intermediate scrutiny, a test it easily survives.

Under intermediate scrutiny, we will sustain a content-neutral statute if “it furthers an important or substantial governmental interest; if the governmental interest is unrelated to the suppression of free expression; and if the incidental restriction on alleged First Amendment freedoms is no greater than is essential to the furtherance of that interest.” *Turner*, 512 U.S. at 662 (internal quotation marks omitted). Congress enacted the DMCA to combat fears of “massive piracy” in the digital environment. S. Rep. No. 105-190, at 8. It intended that section 1201(a) would “create[] the legal platform for launching the global digital on-line marketplace for copyrighted works,” so that content owners would be willing to “make available via the Internet . . . movies, music, software, and literary works.” *Id.* at 2. In its 2017 study of section 1201, the Register of Copyrights found that the DMCA continues to serve the “essential” purpose of protecting “the right of copyright owners to exercise meaningful control over the terms of access to their works online,” and declined to “recommend broad changes to the statute’s overall scope.” U.S. Copyright Office, *Section 1201 of Title 17* 42–43, 152 (2017). The government’s evidence makes clear that “without adequate protection against infringing serial copying,” content owners “would not disseminate their valuable copyrighted [digital] content.” Traw Decl. ¶ 3. Huang’s NeTVCR device would, by design, “permit virtually anything displayable on a modern television screen to be recorded in the clear and made available online” by making obsolete the technological protection measure it targets. U.S. Copyright Office, *Section 1201 Rulemaking: Seventh Triennial Proceeding to Determine Exemptions to the Prohibition on Circumvention* 143 (2018). This would “eviscerate virtually every single video content delivery protection system exposing valuable copyrighted video content to massive infringement,” Balogh Decl. ¶ 5, gutting the government’s substantial interest in ensuring the broadest distribution of copyrighted materials. Huang, who

spends most of his brief addressing strict scrutiny, offers no meaningful response and is thus unlikely to succeed on the merits.

We have little left to say because “[i]n first Amendment cases, the likelihood of success will often be the determinative factor in the preliminary injunction analysis.” *Pursuing America’s Greatness*, 831 F.3d at 511 (internal quotation marks omitted). That is especially true here, given that Huang’s arguments on the remaining preliminary injunction factors rest entirely on his flawed claim that continued enforcement of the DMCA imperils his First Amendment rights.

For the foregoing reasons, we affirm the district court’s denial of Green and Huang’s motion for a preliminary injunction and remand for further proceedings consistent with this opinion.

*So ordered.*