

No. 23-16038

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

ORACLE INTERNATIONAL CORPORATION, a California Corporation;
ORACLE AMERICA, INC., a Delaware corporation,

PLAINTIFFS-COUNTERDEFENDANTS-APPELLEES,
V.

RIMINI STREET, INC., a Nevada Corporation; SETH RAVIN, an individual,

DEFENDANTS-COUNTERCLAIMANTS-APPELLANTS.

On Appeal from the United States District Court
for the District of Nevada, Las Vegas
2:14-cv-01699-MMD-DJA
The Honorable Miranda M. Du, Chief District Judge

**BRIEF OF AMICI CURIAE ELECTRONIC FRONTIER
FOUNDATION, COMPUTER & COMMUNICATIONS INDUSTRY
ASSOCIATION, FOUNDATION FOR AMERICAN INNOVATION,
PUBLIC KNOWLEDGE, ENGINE ADVOCACY, MOZILLA
CORPORATION, U.S. PIRG EDUCATION FUND, DIGITAL RIGHT
TO REPAIR COALITION, IFIXIT, AND CREATIVE COMMONS
IN SUPPORT OF NEITHER PARTY**

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CORPORATE DISCLOSURE STATEMENT

Pursuant to Rule 26.1 of the Federal Rules of Appellate Procedure, Amicus Curiae Mozilla Corporation states that it is a wholly-owned subsidiary of the Mozilla Foundation, a 501(c)(3) non-profit. Mozilla Corporation issues no stock, and no publicly held corporation owns a ten-percent or greater interest in it.

All other Amici state that they do not have a parent corporation and that no publicly held corporation owns 10% or more of their stock.

Dated: March 11, 2024

By: /s/ Corynne McSherry
Corynne McSherry

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STATEMENT OF INTEREST¹

The Electronic Frontier Foundation (“EFF”) is a non-profit civil liberties organization that has worked for more than 30 years to ensure that technology supports freedom, justice, and innovation for everyone. EFF and its members have a strong interest in helping courts and policymakers strike the appropriate balance between intellectual property and the public interest, and ensuring that copyright law serves the interests of creators, innovators, and the general public.

The Computer & Communications Industry Association (“CCIA”) is an international, not-for-profit trade association representing a broad cross section of communications and technology firms. For more than 50 years, CCIA has promoted open markets, open systems, and open networks. CCIA members employ more than 1.6 million workers, invest more than \$100 billion in research and development, and contribute trillions of dollars in productivity to the global economy.²

The Foundation for American Innovation (“FAI”) is a 501(c)(3) nonprofit, established in Silicon Valley in 2014 as Lincoln Labs, with the mission of fostering collaboration between innovators and policymakers in order to promote individual

¹ Pursuant to Federal Rule of Appellate Procedure Rule 29(a)(4)(E), amici certify that no counsel for a party authored this brief in whole or in part, and no person other than *amici* or its counsel has made any monetary contributions intended to fund the preparation or submission of this brief. Pursuant to Circuit Rule 29-2(a), all parties have consented to the filing of this brief.

² A list of CCIA members is available at <https://www.ccianet.org/members>.

freedom, support strong institutions, advance national security, and unleash economic prosperity. Since 2014, FAI has advanced the ideals of an open digital ecosystem and opposed the abuse of intellectual property laws to stifle innovation and competition.

Public Knowledge is a non-profit public interest organization that defends consumer rights online. Public Knowledge promotes balanced intellectual property policies that promote the public interest, ensure that the public can access knowledge, and protect the legitimate interests of authors.

Engine Advocacy (“Engine”) is a nonprofit technology policy, research, and advocacy organization that bridges the gap between policymakers and startups, working with government and a community of high-technology, growth-oriented startups across the nation to support the development of technology entrepreneurship. Engine regularly submits briefs highlighting the damage to startups that would result from improperly extending copyright protection in ways that foreclose innovation.

Mozilla Corporation has been a pioneer and advocate for the web for nearly two decades. Mozilla creates and promotes open standards that enable innovation and advance the web as a platform for all. Today, hundreds of millions of people worldwide use Mozilla Firefox to discover and experience the web on computers, tablets, and mobile phones.

U.S. PIRG Education Fund (“PIRG”) is a federation of independent, state-based, citizen-funded Public Interest Research Groups. PIRG is an advocate for the public interest that speaks out for a healthier, safer world in which people are freer to pursue our own individual well-being and the common good. The public benefits from academic and security research into digital products, and access to third-party repair software, all of which could be impacted by this ruling.

iFixit is home to the world’s largest repair community, enabling millions of consumers and businesses fix complex electronic products. Increasingly, these repairs involve software tools that interoperate with legacy products. Creating and using these software tools requires interfacing with software in ways unanticipated by, and seldom approved by, the original designer.

The Digital Right to Repair Coalition includes over 400 businesses and organizations in the industry of repair, reuse, resale and recycling. Our goal is to make sure that everyone is allowed to acquire all the necessary service materials needed to make a complete repair--including parts, tools, documentation, diagnostics and all the software tools that manufacturers have created for that purpose.

Creative Commons is a nonprofit organization based in Mountain View, California that provides open-access licenses that enable copyright owners to encourage the dissemination and reuse of their works. It also advises organizations and individuals on how best to use those licenses. Its clients include the Metropolitan

Museum of Art, Khan Academy, and Wikipedia. Creative Commons works to promote open knowledge and information sharing through its licensing endeavors as well as its support of limitations and exceptions to copyright in the public interest.

Collectively, Amici have participated, as amicus or counsel, in most of the leading copyright cases concerning software in the past three decades, including: *Sega Enters. Ltd. v. Accolade, Inc.* (9th Cir. 1992); *Lotus Dev. Corp. v. Borland Int'l, Inc.* (S. Ct. 1995); *Sony Comput. Ent. Inc. v. Connectix Corp.* (9th Cir. 1999); *Pulse Commc'ns, Inc. v. DSC Commc'ns Corp.* (S. Ct. 1999); *Bowers v. Baystate* (Fed. Cir. 2002); *Lexmark Int'l, Inc. v. Static Control Components, Inc.* (6th Cir. 2003); *The Chamberlain Grp., Inc. v. Skylink Techs., Inc.* (Fed. Cir. 2004); *Davidson & Assocs., Inc., et al. v. Internet Gateway, et al.* (8th Cir. 2005); *Google v. Oracle* (S. Ct. 2014) (cert stage); *Cisco v. Arista* (Fed. Cir. 2017); *SAS Inst. v. World Programming* (4th Cir. 2017); *Oracle v. Google* (Fed. Cir. 2013, 2017, 2018; S. Ct. 2014, 2019).

INTRODUCTION AND SUMMARY OF ARGUMENT

Relying on an inapposite precedent regarding video games, Oracle seeks to dramatically expand copyright's statutory monopoly. Amici, a diverse group of stakeholders representing consumers, small businesses, software developers, security researchers, and the independent repair community, express no opinion as to most of the issues in this case. But we strongly urge the Court to reject the district

court's conclusion that a computer program that is neither substantially similar to another program, nor even includes protected expression from that program, can be a derivative work.

The district court's finding cannot be squared with binding precedents in this Court. It is also bad policy. For decades, software developers have relied, correctly, on the settled view that a work is not derivative unless it is substantially similar to a preexisting work in both ideas and expression. Thanks to that rule, software developers can build innovative new tools that interact with preexisting works, including tools that improve privacy and security, without fear that the companies that hold rights in those preexisting works would have an automatic copyright claim to those innovations.

That reliance rests, in turn, on black-letter law not only in this Circuit, but in many others as well. Court after court has confronted the challenging problem of applying copyright to functional software, and taken care not to suggest that the copyright monopoly extends to interoperable software absent substantial similarity. There is no "software exception" to the definition of derivative works, and Amici urge this Court to reject any effort to create one.

Finally, we urge the Court not to put even more weight on the fair use doctrine to protect innovation. As copyrightable software is found in everything from phones to refrigerators, fair use is an essential safeguard for the development of

interoperable tools where those tools might indeed qualify as derivative works. But many developers cannot afford to litigate the question, and they should not have to when they have not incorporated protectable expression from a prior work.

The district court's analysis on this issue, left uncorrected, is dangerous for developers and the millions of consumers that rely on their work. Amici urge the Court to reject it.

ARGUMENT

I. INTEROPERABLE WORKS ARE NOT AUTOMATIC “SEQUELS”

The definition of derivative work is well settled in this circuit. The leading case in this circuit is *Litchfield v. Spielberg*, 736 F.2d 1352 (9th Cir. 1984). The author of a play sued the producers of the hit film *E.T.: The Extraterrestrial* for copyright infringement. The Ninth Circuit affirmed the grant of summary judgment to the defendants because the two works were not substantially similar in ideas and, especially, expression. *Id.* at 1357 (“the concept and feel of the works here are completely different”). In so holding, the court expressly affirmed that a derivative work must contain protected expression that is substantially similar to a prior work. *Id.*; see also *Lewis Galoob Toys, Inc. v. Nintendo of Am., Inc.*, 964 F.2d 965, 969 (9th Cir. 1992).

The district court's holding in this case side steps that clear precedent, relying heavily on an erroneous interpretation of *Micro Star v. FormGen Inc.*, 154 F.3d 1107

(9th Cir. 1998), popularly known as the “*Duke Nukem*” case. Plaintiff FormGen published a video game which included a software tool that allowed players themselves to build new levels to the game and share them with others. Micro Star downloaded hundreds of those user-created files and sold them commercially. When FormGen sued for copyright infringement, Micro Star argued that because the user files didn’t contain art or code from the FormGen game, they were not derivative works.

The Ninth Circuit Court of Appeals disagreed. The court’s analysis affirmed, again, that a work is derivative only if it “substantially incorporate[s] protected material from the preexisting work.” *Micro Star*, 154 F.3d at 1110 (citing *Litchfield*, 736 F.2d at 1357). Micro Star’s theory, however, misunderstood that

[t]he work that *Micro Star* infringes is *the [Duke Nukem] story itself*— a beefy commando type named Duke who wanders around post-Apocalypse Los Angeles, shooting Pig Cops with a gun, lobbing hand grenades, searching for medkits and steroids, using a jetpack to leap over obstacles, blowing up gas tanks, avoiding radioactive slime. A copyright owner holds the right to create sequels and the stories told in the [user files] are surely sequels, telling new (though somewhat repetitive) tales of Duke’s fabulous adventures.

Micro Star, 154 F.3d at 1112 (emphasis added) (citation omitted).

Thus, the user files were “substantially similar” because *they functioned as sequels* to the work itself – specifically the story and principal character of the game. If the user files had told a different story, with different characters, they would not be derivative works:

If another game could use the MAP files to tell the story of a mousy fellow who travels through a beige maze, killing vicious saltshakers with paper-clips, then the MAP files *would not incorporate the protected expression of* [the Duke Nukem] *story*.

Id. at 1112 n.5. Notably, the court had already found that the game and the user files shared the same “concept and feel” because they contained the same source art. *Id.* at 1112.

The district court describes *Micro Star* as a key precedent “dealing with computer software and derivative works.” *Rimini St., Inc. v. Oracle Int’l Corp.*, 473 F. Supp. 3d 1158, 1210 (D. Nev. 2020). But the *Micro Star* holding concerned an audiovisual work, not a purely functional computer program and accordingly relied on a close analogy to traditional copyrighted works, treating the user files as functionally akin to a film treatment based on a book. For example, a company offering a Lord of the Rings game might include tools allowing a user to create their own character from scratch. If the user used the tool to create a hobbit, that character might be considered a derivative work. A unique character that was simply a 21st century human in jeans and a t-shirt, not so much.

Indeed, close attention to the specific facts of the case is the only way to reconcile *Micro Star* with *Litchfield*, as well as opinions from multiple sister circuits. *See Patry on Copyright* § 12:13 n.1 (Mar. 2023) (collecting cases). *Micro Star* did not repudiate the “substantial incorporation” requirement. In the court’s view, the user files did in fact incorporate protected material — the Duke Nukem story and

character. Both the use of FormGen’s tool and the interoperability of the files were relevant only because those files were designed *to continue the same story*.

Even confined to its facts, *Micro Star* stretched the definition of derivative work. By misapplying *Micro Star* to purely *functional* works that do not incorporate *any* protectable expression, the district court rewrote the definition altogether.

II. THE DISTRICT COURT’S THEORY WOULD UNDERMINE SOFTWARE INNOVATION, SECURITY, AND THE RIGHT TO REPAIR

The parties agree that certain of Rimini Street’s software code updates are designed using Oracle’s software and intended to “interact” and be “useable” with — i.e., interoperate — with PeopleSoft. But that is true of many software programs. Accordingly, the district court’s apparent conclusion that (1) use of a copyright holder’s tool to (2) create a program that is intended to “interact and be useable with” a preexisting work, renders that program a derivative work could put all sorts of valuable activity at risk. Rightholders would suddenly have a new default veto right in all kinds of works that are intended to “interact and be useable with” their software. Unfortunately, they are all too likely to use that right to threaten add-on innovation, security, and repair.

A. Software Innovation Often Depends on Permissionless Interoperability

Interoperable software can be a derivative work if it incorporates protectable expression. However, software developers and rightholders — the categories

overlap — have operated for decades with the understanding that those rightsholders have no claim absent such incorporation.

For example, many companies, such as Microsoft, Mozilla, and Apple, offer tools to help software developers ensure that their applications interact and are useable with their operating systems and browsers.³ No provider or user of those tools expects that those companies thereby acquire copyrights in those applications. Similarly, platforms for user-generated content such as YouTube offer tools that help developers add features to their applications, including uploading videos, managing playlists and subscriptions, and enabling users to search for videos.⁴ Those features are intended to interact and be useable with existing platforms. But, again, no one treats those applications as derivative works.

Indeed, if the district court's theory were correct, these systems, browsers and platforms might not even exist, because interoperability has long been the cornerstone of software development. The history of Apple, Inc. offers a particularly

³ See, e.g., Microsoft Popular Developer software downloads, <https://www.microsoft.com/en-us/download/developer-tools> (last visited Mar. 4, 2024); Apple Developer Resources, <https://developer.apple.com/xcode/resources/> (last visited Mar. 4, 2024); Android Developers, <https://developer.android.com/> (last visited Mar. 4, 2024); Chrome for Developers, <https://developer.chrome.com/docs/devtools> (last visited Mar. 4, 2024); Firefox Browser Developer Edition, <https://www.mozilla.org/en-US/firefox/developer/> (last visited Mar. 4, 2024).

⁴ See, e.g., YouTube Data Application Programming Interface (API), <https://developers.google.com/youtube/v3> (last visited Mar. 1, 2024).

notable example. In the early 2000s, Microsoft’s Office suite dominated the application software market for desktops and laptops. Because the versions Microsoft provided for other machines like Apple computers were not interoperable with files created on Microsoft’s own Windows operating system, Microsoft had tremendous power in the operating system market. But other companies like Apple were able to reverse-engineer the Office software—without permission—and develop new applications, like Pages, Numbers and Keynote, that could perfectly read and write Microsoft’s Word, Excel and PowerPoint files.⁵ Without that ability, Apple would have been hard-pressed to survive, much less compete, leaving consumers fewer choices.

Interoperability also helps solve the “orphaned” software problem, which is created when software developers cease updating or otherwise supporting a product. Over time, “orphaned” software often becomes incompatible with modern computers and other software, particularly as platforms change. But any developer is free to “rescue” an orphan by building interoperable software. Indeed, a single anonymous fan revived a game released in 1999 and later abandoned, by creating and releasing, for free, a software patch that made it playable on modern machines.⁶

⁵ See generally Wikipedia, iWork, <https://en.wikipedia.org/wiki/IWork>.

⁶ Timothy Geigner, *Embrace Fans: How One Mystery Modder Has Kept System Shock 2 Playable*, Techdirt (Aug. 16, 2019), <https://www.techdirt.com/2019/08/16/embrace-fans-how-one-mystery-modder-has-kept-system-shock-2-playable/>.

Government entities and non-profits are especially susceptible to the orphan programs problem since their tight budgets often force them to use outdated technology. For example, when the National Aeronautics and Space Administration (NASA) sought to repurpose old manufacturing robots for a new project, it asked a private company to manufacture and program updated memory chips to store the robots' new instructions.⁷ Configuring firmware to put on the chips required using obsolete software that wouldn't run on modern computers. *Id.* The developer reimplemented the software's application program interface (API), creating modern software that could fulfill the same functions and work alongside old machines that had the same API hard-coded into their electronics. *Id.*

If the developer of the original obsolete software had a copyright interest in the modern software, NASA would have needed to acquire a license. Assuming it could afford to do so, finding the right person to grant permission for a reimplementation would have been extremely difficult. If the company couldn't control its liability, it would not have been able to reimplement the API and complete the contract. And NASA would have had to spend its limited funding on replacing its perfectly functional manufacturing robots.

⁷ Brief for Computer Scientists as Amici Curiae Supporting Petitioner at 25, *Google Inc. v. Oracle Am. Inc.*, 574 U.S. 1071 (2014) (No. 14-410), available at https://www.supremecourt.gov/DocketPDF/18/18-956/89487/20190225134131839_18-956_Oracle_v_Google_Computer_Scientists_Amicus_Motion_Brief_FILE.pdf.

B. Software Security Often Depends on Permissionless Interoperability

The world we live in is increasingly mediated by complex technologies, from satellite relays in space to the cell phones in our pockets. Such technologies enable new forms of interaction, but they also present new risks. Technological vulnerabilities allow malicious actors to target personal devices, voting booths, automobiles, even bodily privacy.⁸ Independent researchers have discovered flaws in systems ranging from iMessage⁹ to automobiles¹⁰—flaws that could inflict serious harm on end users if discovered by malicious actors.

The best way to limit those harms is to detect vulnerabilities before they can be exploited—but this is no easy feat. In 2020 alone, more than 18,000 vulnerabilities were logged in the U.S. National Vulnerability Database.¹¹ At this scale, security requires widespread, independent testing. That’s why the National Institute of Standards and Technology (NIST) has warned that “system security

⁸ Kari Paul, *How Your Heart Rate Monitor Could Help Criminals*, MarketWatch (Sept. 17, 2019), <https://www.marketwatch.com/story/how-your-heart-rate-monitor-could-help-criminals-2017-09-18>.

⁹ Bill Marczak et al., *FORCEDENTRY: NSO Group iMessage Zero-Click Exploit Captured in the Wild*, CitizenLab (Sept. 13, 2021), <https://citizenlab.ca/2021/09/forcedentry-nso-group-imessage-zero-click-exploit-captured-in-the-wild/>.

¹⁰ Thomas Brewster, *Watch a Tesla Have Its Doors Hacked Open by a Drone*, Forbes (Apr. 29, 2021), <https://www.forbes.com/sites/thomasbrewster/2021/04/29/watch-a-tesla-have-its-doors-hacked-open-by-a-drone>.

¹¹ Redscan, *NIST Security Vulnerability Trends in 2020: An Analysis 4* (2021), https://www.redscan.com/media/Redscan_NIST-Vulnerability-Analysis-2020_v1.0.pdf.

should not depend on the secrecy of the implementation or its components” and has recommended “open design.”¹² As one security expert notes, “[p]ublic scrutiny is the only reliable way to improve security, while secrecy only makes us less secure.”¹³

But detection is only part of the problem; the vulnerabilities must then be fixed or otherwise addressed, and rightholders do not always do so.¹⁴ They may fear risks to their reputation if they admit to the vulnerability, be unable to create a fix themselves, or no longer support the product in question. That is why independent developers may themselves create and disseminate “patches,” *i.e.*, software updates. To return to the gaming context, for example, a community of gamers worked together to fix vulnerabilities in *Call of Duty: Black Ops* that allow malicious hackers to take over other players’ computers. The game’s publisher, Activision,

¹² Karen Scarfone et al., Nat’l Inst. Standards & Tech., Special Pub. 800-123, *Guide to Central Server Security* 2-4 (July 2008), <http://csrc.nist.gov/publications/nistpubs/800-123/SP800-123.pdf>.

¹³ Bruce Schneier, *Schneier: Full Disclosure of Security Vulnerabilities a ‘Damned Good Idea’*, Schneier on Security (Jan. 2007), https://www.schneier.com/essays/archives/2007/01/schneier_full_disclo.html.

¹⁴ See, e.g., Jonathan Leitschuh, *Zoom Zero Day: 4+ Million Webcams & maybe an RCE? Just get them to visit your website!*, InfoSec Write-ups (July 8, 2019), <https://infosecwriteups.com/zoom-zero-day-4-million-webcams-maybe-an-rce-just-get-them-to-visit-your-website-ac75c83f4ef5>. (“Zoom failed at quickly confirming that the reported vulnerability actually existed and they failed at having a fix to the issue delivered to customers in a timely manner.”).

was well aware of the problem but slow to fix it.¹⁵

Unfortunately, companies sometimes try to muzzle independent researchers with legal threats. Indeed, in 2015, Activision threatened some of the same developers who patched Call of Duty in 2023, leading them to cease work on the game for years. Cisco threatened to sue conference organizers for allowing a researcher to publicly discuss a vulnerability he had discovered in Cisco internet routers.¹⁶ Netflix tried to silence a researcher who found a significant security flaw that allowed a bad faith actor to access Netflix accounts.¹⁷

Taken to its logical conclusion, the district court's theory could add a new arrow to the rightholders' quiver. Companies could argue that independently produced software patches were derivative works because they, too, are intended to

¹⁵ Lorenzo Franceschi-Bicchierai, *Gamers are fixing a video game 'taken over' by hackers*, TechCrunch (Feb. 28, 2023), <https://techcrunch.com/2023/02/28/gamers-are-fixing-a-video-game-taken-over-by-hackers/>; Rishabh Kalita, *Call of Duty finally addresses the security exploit in Black Ops Cold War*, Sportskeeda (June 23, 2023), <https://www.sportskeeda.com/call-of-duty-game/news-call-duty-finally-addresses-security-exploit-black-ops-cold-war>.

¹⁶ Bruce Schneier, *Cisco Harasses Security Researcher*, Schneier on Security (July 29, 2005), https://www.schneier.com/blog/archives/2005/07/cisco_harasses.html (In addition to threatening a potential lawsuit, Cisco also told workers to cut pages related to the presentation from the conference program and destroy 2,000 CDs that had the presentation on it.).

¹⁷ Dan Goodin, *Here's the Netflix account compromise Bugcrowd doesn't want you to know about [Updated]*, ArsTechnica (Mar. 23, 2020), <https://arstechnica.com/information-technology/2020/03/bugcrowd-tries-to-muzzle-hacker-who-found-netflix-account-compromise-weakness/> (Netflix's vulnerability reporting service told the researcher to take down his content showing the threat in detail, claiming it was "a form of unauthorized disclosure.").

“interact” and “be useable with” preexisting works. And whether the researchers use tools provided by the rightholders (they may not) does not assist the analysis; how a piece of interoperable software is developed, by itself, has no bearing on whether that software incorporates protected material.

C. Software Repair Often Depends on Permissionless Interoperability

Policymakers, technicians, and ordinary consumers are increasingly aware of the need to ensure that vendors cannot use copyright to inhibit consumers’ right to repair their own devices or look to trusted third parties to do so. As with vulnerability fixes, such repairs may require the creation of software patches that the vendor itself may be slow to offer. Repairs may also require the use of diagnostic tools that rest on interoperable software.¹⁸

As the Federal Trade Commission has noted, vendors “may limit repairs by consumers and repair shops, and . . . those limitations may increase costs, limit choice, and impact consumers’ rights.”¹⁹ For example, farmers often need to wait days for simple repairs of their John Deere tractors because of inaccessible

¹⁸ See, e.g., Snap-on Vehicle Diagnostic Tool Software, <https://www.snapon.com/EN/US/Diagnostics/Information--Software-Products/Diagnostic-Tool-Software> (last visited Mar. 4, 2024).

¹⁹ Federal Trade Commission, *Nixing the Fix: An FTC Report to Congress on Repair Restrictions* 3 (2021), https://www.ftc.gov/system/files/documents/reports/nixing-fix-ftc-report-congress-repair-restrictions/nixing_the_fix_report_final_5521_630pm-508_002.pdf.

diagnostic software.²⁰ In other cases, manufacturers have tried to lock third-party developers out of making cheaper components for existing products.²¹

Treating interoperability as evidence that a work is derivative would give those manufacturers an additional tool to control those after-market activities. This Court should decline to offer it.

III. THE DISTRICT COURT’S RULING IS INCOMPATIBLE WITH THIS COURT’S CLEAR PRECEDENT, AS WELL AS THAT OF MULTIPLE SISTER COURTS

The district court’s analysis isn’t just bad policy, it’s bad law that cannot be reconciled with this Court’s rulings in *Sega Enters., Ltd. v. Accolade, Inc.*, 977 F.2d 1510, 1514 (9th Cir. 1992), and *Sony Comput. Ent., Inc. v. Connectix Corp.*, 203 F.3d 596 (9th Cir. 2000), *cert. denied*, 121 S. Ct. 172 (2000).

A. *Sega v. Accolade*

In the early 1990s, two Japanese companies, Sega and Nintendo, dominated the global home video game market. Each developed a set of interfaces between their consoles and the cartridges containing games, rendering the consoles incompatible with non-conforming cartridges. Because consoles were expensive, buyers

²⁰ Uri Berliner, *Standoff Between Farmers and Tractor Makers Intensifies Over Repair Issues*, National Public Radio (May 26, 2021), <https://www.npr.org/2021/05/26/1000400896/standoff-between-farmers-and-tractor-makers-intensifies-over-repair-issues>.

²¹ Josh Dzieza, *Keurig’s Attempt to ‘DRM’ Its Coffee Cups Totally Backfired*, The Verge (Feb. 5, 2015), <https://www.theverge.com/2015/2/5/7986327/keurigs-attempt-to-drm-its-coffee-cups-totally-backfired>.

effectively committed themselves to one environment; they could only purchase games compatible with their console. An independent game developer, therefore, could compete only if it could achieve compatibility with either Nintendo or Sega consoles. Jonathan Band & Masanobu Katoh, *Interfaces on Trial: Intellectual Property and Interoperability in the Global Software Industry* (1995), available at <http://www.policybandwidth.com/interfaces-2-0> (“*Interfaces 1.0*”) at 183.

Nintendo and Sega would license their interfaces for a stiff license fee, with severe restrictions. Accolade, a small American video game developer, decided that Sega’s fees and conditions were unreasonable. Accordingly, it sought to achieve compatibility via disassembling Sega’s code to identify the interfaces, then writing its own code to implement those interfaces.

Soon after Accolade released its Sega-compatible game cartridge, Sega sued for copyright infringement. The district court granted Sega’s motion for preliminary injunction, rejecting Accolade’s argument that its disassembly of Sega’s program was a fair use. This Court reversed, finding that “in light of the public policies underlying the [Copyright] Act,” disassembly of “a copyrighted computer program in order to gain an understanding of the unprotected functional elements of the program” was a fair use “when the person seeking the understanding has a legitimate reason for doing so and when no other means of access to the unprotected elements exists.” *Accolade, Inc.*, 977 F.2d at 1514.

Significantly, this Court excused the copying incidental to Accolade’s reverse engineering of Sega’s products because the purpose of the reverse engineering was to uncover the unprotectable software interfaces necessary to achieve interoperability. The *Accolade* court found that Accolade reverse engineered “Sega’s software solely . . . to discover the functional requirements for compatibility with the Genesis console—aspects of Sega’s programs that are not protected by copyright. 17 U.S.C. § 102(b).” *Id.* at 1522. The *Accolade* court explained that if reverse engineering were not permitted,

the owner of the copyright gains a *de facto* monopoly over the functional aspects of his work—aspects that were expressly denied copyright protection by Congress. 17 U.S.C. §102(b). In order to enjoy a lawful monopoly over the idea or functional principle underlying a work, the creator must satisfy the more stringent standards imposed by the patent laws.

Id. at 1526.

In short, the *Accolade* court found no copyright bar to Accolade’s development of a game that was designed to interoperate with Sega’s console. In particular, Section 102(b) allowed Accolade to copy the software interfaces necessary to achieve interoperability. The *Accolade* court nowhere suggested that Accolade’s games were infringing derivative works because they operated within the Sega environment. In contrast, under the reasoning of the district court below, Accolade’s games should have been found to infringe Sega’s exclusive right to prepare derivative works.

B. *Sony v. Connectix*

This Court applied the same approach in *Sony Comput. Ent., Inc. v. Connectix Corp.* Connectix developed software that emulated the Sony PlayStation. This emulator—the Virtual Game Station (VGS)—enabled a user to run a PlayStation-compatible game on a Macintosh computer. To ensure compatibility between the emulator and the PlayStation games, Connectix had to reverse engineer the Sony PlayStation. One step in the process of reverse engineering involved loading the PlayStation’s basic input/output system (BIOS) into a computer and running it repeatedly as Connectix engineers developed software that interacted with it. Once they had completed this software, the Connectix engineers developed their own BIOS to interact with the software. The repeated running of the Sony BIOS caused the making of numerous temporary copies of the BIOS in the computer’s random-access memory. Sony asserted that these copies infringed its copyright in its BIOS. The district court agreed and issued a preliminary injunction.

In keeping with its ruling in *Accolade*, this Court reversed. It found that the temporary copies were excused under the fair use doctrine because they were necessary for the uncovering of elements not protected by Sony’s copyright—specifically, the BIOS’s interface specifications. *Connectix*, 203 F.3d at 603. Again, this Court nowhere suggested that the VGS was an infringing derivative work because it was designed to interoperate with Sony games. Yet, under the reasoning

of the district court below, the VGS should have been found to infringe Oracle's exclusive right to prepare derivative works.

C. Decisions in Other Circuits

Courts in other circuits have likewise found that copyright does not prevent the development of interoperable products. *See, e.g., Lotus Dev. Corp. v. Borland Int'l, Inc.*, 49 F.3d 807 (1st Cir. 1995), *aff'd by an evenly divided Court*, 516 U.S. 233 (1996); *Comput. Assocs. Int'l, Inc. v. Altai, Inc.*, 982 F.2d 693 (2d Cir. 1992); *Lexmark Int'l, Inc. v. Static Control Components, Inc.*, 387 F.3d 522 (6th Cir. 2004); *Mitel, Inc. v. Iqtel, Inc.*, 124 F.3d 1366 (10th Cir. 1997); *Bateman v. Mnemonics, Inc.*, 79 F.3d 1532 (11th Cir. 1996). None of these courts imagined that a computer program was an infringing derivative work simply by virtue of being interoperable with the product of another program developer. As these cases suggest, the district court's analysis contradicts decades of software copyright jurisprudence.

Oracle's own long-running litigation against Google offers a final example. *Google LLC v. Oracle Am., Inc.*, 141 S. Ct. 1183, 1197 (2021). A central issue in that litigation was whether the elements necessary to achieve interoperability were *per se* unprotectable under Section 102(b), as found by *Accolade*, *Connectix*, and the other decisions cited above; or are protectable and could be used by the new entrant only to the extent permitted by fair use, as held by the Federal Circuit in *Oracle Am., Inc. v. Google Inc.*, 750 F.3d 1339 (Fed. Cir. 2014). The Supreme Court ultimately

chose to assume “purely for argument’s sake” that the entire Java API was protectable, and analyzed whether Google’s use of part of the API was fair use. *Google*, 141 S. Ct. at 1197. If the district court in this case were correct, however, that entire inquiry concerning the copyright status of program elements needed for interoperability would have been irrelevant, because the interoperable product would have automatically qualified as a potentially infringing derivative work.

But the district court was not correct, and Amici urge this Court to follow decades of clear precedent, rather than the district court’s misunderstanding of the nature of the right to prepare derivative works.

IV. THE FAIR USE DEFENSE IS NOT ADEQUATE TO PROTECT THE BENEFITS OF INTEROPERABILITY

Oracle may argue that the kinds of activities discussed above, whether or not they resulted in derivative works, could still be protected fair uses. But fair use, “designed to accommodate First Amendment concerns, is notoriously fact sensitive and often cannot be resolved without a trial. The less bold among us would have to think twice before [relying upon it.]” *Georgia v. Public.Resource.Org, Inc.*, 140 S. Ct. 1498, 1513 (2020) (citation omitted).

Litigation costs alone can be prohibitive for even clear fair uses. As Amicus Engine Advocacy has shown with respect to other torts, litigation costs can reach into the hundreds of thousands of dollars even if the case is resolved on summary

judgment.²² And the financial consequences do not end there, thanks to copyright's draconian statutory damages regime. Section 504 of the Copyright Act provides almost no guidance on how to award statutory damages upon a finding of infringement, and the amounts awarded vary widely from case to case even on similar facts.²³ Thus, every person that relies on a fair use or other copyright exemption must assume that, if they lose, their damages will fall somewhere between \$200 (if the infringement is innocent) and \$150,000 per work — a range of 750 to 1. Startup companies, nonprofits, and independent researchers cannot afford to take on virtually unbounded legal risk, even with the promise of recovering fees and costs if they prevail.

Moreover, thanks to the development of new technologies and the internet itself, copyright is already an expansive regime covering wide swaths of everyday activities. It takes very little to make out a *prima facie* copyright claim, and thereby invite the specter of ruinous statutory damages for those activities. Against this background, courts should decline any invitation to expand copyright's reach.

²² Engine, *Section 230: Cost Report* (2019), <https://static1.squarespace.com/static/571681753c44d835a440c8b5/t/5c6c5649e2c483b67d518293/1550603849958/Section+230+cost+study.pdf>.

²³ See Pamela Samuelson & Tara Wheatland, *Statutory Damages in Copyright Law: A Remedy in Need of Reform*, 440 WM. & MARY L. REV. 439, 485-87 (2009).

CONCLUSION

For the reasons stated above, Amici urge this Court to reject any notion that use of a copyright holder’s tool to create a program that is intended to “interact and be useable with” a preexisting work renders that program a derivative work for purposes of Section 106(2).

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CERTIFICATE OF COMPLIANCE

Pursuant to Fed. R. App. P. 32(g), I certify as follows:

1. This Brief of Amici Curiae Electronic Frontier Foundation, Computer & Communications Industry Association, Foundation for American Innovation, Public Knowledge, Engine Advocacy, Mozilla Corporation, US PIRG Education Fund, Digital Right to Repair Coalition, iFixit, and Creative Commons in Support of Neither Party with the type-volume limitation of Fed. R. App. P. 32(a)(7)(B) because this brief contains 5,300 words, excluding the parts of the brief exempted by Fed. R. App. P. 32(f); and

2. This brief complies with the typeface requirements of Fed. R. App. P. 32(a)(5) and the type style requirements of Fed. R. App. P. 32(a)(6) because this brief has been prepared in a proportionally spaced typeface using Microsoft Word 365, the word processing system used to prepare the brief, in 14 point font in Times New Roman font.

Dated: March 11, 2024

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CERTIFICATE OF SERVICE

I hereby certify that I electronically filed the foregoing with the Clerk of the Court for the United States Court of Appeals for the Ninth Circuit by using the appellate CM/ECF system on March 11, 2024.

I certify that all participants in the case are registered CM/ECF users and that service will be accomplished by the appellate CM/ECF system.

Dated: March 11, 2024

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