Nos. 17-1118, -1202

IN THE

United States Court of Appeals

FOR THE FEDERAL CIRCUIT

ORACLE AMERICA, INC.,

Plaintiff-Appellant,

v.

GOOGLE INC.,

Defendant-Cross-Appellant.

Appeal from the United States District Court for the Northern District of California, Case No. 3:10-cv-03561-WHA, Hon. William H. Alsup

BRIEF FOR MICROSOFT CORP., RED HAT, INC., AND HEWLETT PACKARD ENTERPRISE CO. AS *AMICI CURIAE* IN SUPPORT OF DEFENDANT-CROSS-APPELLANT AND AFFIRMANCE

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UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

Oracle America, Inc. **v.** Google Inc.

Case No. 17-1118, -1202

CERTIFICATE OF INTEREST

Counsel for the:
☐ (petitioner) ☐ (appellant) ☐ (respondent) ☐ (appellee) ☒ (amicus) ☐ (name of party)

Microsoft Corporation, Red Hat, Inc., and Hewlett Packard Enterprise Company

certifies the following (use "None" if applicable; use extra sheets if necessary):

1. Full Name of Party Represented by me	2. Name of Real Party in interest (Please only include any real party in interest NOT identified in Question 3) represented by me is:	3. Parent corporations and publicly held companies that own 10 % or more of stock in the party
Microsoft Corporation	None	None
Hewlett Packard Enterprise Company	None	None
Red Hat, Inc.	None	No parent; T. Rowe Price Associates,
		Inc. owns more than 10% of stock

4. The names of all law firms and the partners or associates that appeared for the party or amicus now represented by me in the trial court or agency or are expected to appear in this court (**and who have not or will not enter an appearance in this case**) are:

MoloLamken LLP: Jeffrey A. Lamken, Michael G. Pattillo, Rayiner I. Hashem, Lisa W. Bohl

May 30, 2017
Date

/s/ Jeffrey A. Lamken
Signature of counsel

Please Note: All questions must be answered

Jeffrey A. Lamken
Printed name of counsel

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INTEREST OF *AMICI CURIAE*[1]

This case concerns the application of copyright law, including the fair use doctrine, to computer programs. *Amici* are keenly interested in both preserving settled copyright law and sensibly resolving new issues in ways that allow our intellectual property regime to function fairly, efficiently, and predictably.

Microsoft Corporation ("Microsoft") is a leading innovator in computer software and has spent nearly forty years creating software platforms for application developers, including the well-known Windows operating system. Microsoft's mission is to enable individuals and businesses throughout the world to realize their full potential by creating technology that transforms the way people work, play, and communicate. Microsoft develops, manufactures, licenses, sells, and supports a wide range of programs, devices, and services, including Windows, Microsoft Office and Microsoft Office 365, Surface, Xbox and Xbox Live, and Bing. And it invests billions of dollars in research, development, and promotion of new technologies, products, and services, and competes vigorously in dynamic technology markets. Microsoft participated as *amicus curiae* in the first appeal in this case, which addressed the issue of copyrightability under 17 U.S.C. § 102.

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[1] Pursuant to Federal Rule of Appellate Procedure 29(a)(4)(E), *amici* affirm that no counsel for a party authored this brief in whole or in part and that no person other than *amici* and their counsel made a monetary contribution to its preparation or submission. The parties have stated that they do not oppose the filing of this brief.

Red Hat, Inc. ("Red Hat") is the world's leading provider of open source software solutions. It provides enterprise-strength, mission-critical software and services in the areas of operating systems, virtualization, middleware, storage, and cloud computing. Its products and services are used by more than 90 percent of Fortune 500 companies. It is headquartered in Raleigh, North Carolina, and has more than 85 offices in 35 countries. As a pioneer in open source software development, Red Hat considers issues relating to copyrights in software, including the application of the fair use doctrine, to be of great importance to its business.

Headquartered in Palo Alto, California, Hewlett Packard Enterprise Co. ("HPE") is one of the largest and most successful information technology companies in the world. Innovation is a key element of HPE's culture. HPE is the provider of technology solutions that customers need to optimize traditional information technology while helping them build the secure, cloud-enabled, mobile-ready future that suits their needs. It offers servers, storage, networking, converged systems, software, and services, combined with financing solutions. HPE's customers include businesses of all sizes, state and federal governments, municipal law enforcement agencies, and public and private entities in the health and education sectors. HPE develops, licenses, and supports one of the world's largest software portfolios.

Amici do not merely have a keen interest in the questions presented in this case. They also have a unique—and uniquely balanced—perspective on the broader legal, economic, and technological issues the case implicates. On the one hand, *amici* rely on copyright protection to develop and exploit their products and services. On the other hand, *amici* are also users and licensees of copyrighted works, and have a longstanding strategic interest in preserving room for legitimate reverse-engineering, competitive analysis, and innovative follow-on development of existing software. *Amici* and their customers also need their products to interoperate effectively with copyrighted products provided by other vendors. To that end, *amici* must be able to control deployment of their own products and services, while ensuring that they can continue to use systems, platforms, infrastructures, and solutions built from connectable offerings provided by multiple vendors. Further, *amici* actively use, contribute to, and sponsor open source projects, which also rely on settled copyright law. *Amici* thus have a particularly balanced perspective on the copyright issues presented by this case.

INTRODUCTION AND SUMMARY OF ARGUMENT

Copyright law reflects a careful balance. On the one hand, it seeks to protect authors so their work is not exploited by free riders. On the other hand, it strives to ensure that copyright protection does not foreclose further innovation. *Amici* do not necessarily agree on all copyright issues. When this case first came before this

Court, one *amicus* joining this brief (Microsoft) urged that the computer programs at issue were copyrightable under 17 U.S.C. § 102, while other signatories to this brief (HPE and Red Hat) disagreed.[2] But *amici* all agree (consistent with their prior positions) that the "fair use" doctrine serves a critical role in ensuring that any copyright protection for software promotes rather than impedes innovation. To serve that role, the doctrine must continue to develop in a consistent, predictable way.

Amici submit this brief to provide context for the fair use issues before the Court. As applied in settled law and practice alike, that doctrine has been critical to the development of today's rich, highly interoperable software ecosystem. Altering the law's careful balance by overturning the verdict in this case could have severe destabilizing effects on that ecosystem. While a different factfinder might have made different findings and reached different results, the verdict is well within the boundaries of existing law on fair use.

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[2] Microsoft's *amicus* brief in the first appeal argued that the APIs to Oracle's Java software platform met copyright's low standard for originality. *See* Brief for *Amici Curiae* Microsoft Corporation, EMC Corporation, and Netapp, Inc. at 9-15, *Oracle Am., Inc. v. Google, Inc.*, Nos. 13-1021, 13-1022 (Fed. Cir. Feb. 2013). On the other hand, HPE and Red Hat filed an *amicus* brief in support of Google's petition for a writ of certiorari, in which they argued that the statutory monopoly of copyright does not extend to APIs. *See* Brief of *Amici Curiae* Hewlett-Packard Company, Red Hat, Inc., and Yahoo! Inc. at 11-13, *Google Inc. v. Oracle Am., Inc.*, No. 14-410 (U.S. Nov. 2014).

I.A. A number of settled copyright doctrines balance the rights of authors against the rights of others to engage in follow-on innovation. For example, courts have excluded the facts and ideas underlying creative works from the scope of authors' copyrights. And while fact-based works may still enjoy a degree of copyright protection, courts have held that such works may merit relatively "thinner" protection than pure creative expression. Non-infringement doctrines like idea-expression merger, *scenes à faire*, and fair use embody the same principles. Copying is more likely to be permissible when it merely builds upon facts and ideas found in an existing work.

B. While those doctrines were originally developed in the context of literary or artistic works, courts have consistently applied the same principles in cases involving copyrighted computer programs. Recognizing that software code involves functional elements as well as creative elements, courts have—over a period of decades—developed a balanced jurisprudence. They have held that, although software code may be copyrightable, another party's copying of functional elements of that software may be fair use—particularly when done for the purpose of reverse-engineering the existing software and/or creating a new program that is interoperable with it.

II. Several *amici* in this case urge that a robust fair use doctrine harms society by diminishing the incentive to create new works in the first instance. But

industry experience proves otherwise. With the benefit of hindsight, it is now clear that seminal decisions finding fair use or non-infringement of computer programs did not harm creativity in the affected fields. To the contrary, after those decisions we saw the very growth in creative expression that the Copyright Act was intended to promote. Where copyright holders warned of disaster, a balanced copyright system has in reality allowed multi-billion-dollar industries to flourish.

III.A. The software industry as a whole depends upon the predictable application of established copyright principles. Today's software ecosystem has developed to allow consumers to access their data from numerous interoperable platforms like Windows, Android, iOS, and Linux, running on myriad different devices. That interoperability is made possible by the industry's settled understanding about what does and does not constitute fair use of software code. Were the Court, in deciding this case, to alter the existing balance between copyright protection and fair use, it would have a profoundly destabilizing effect on the entire industry.

B. Fortunately, there is no need for this Court to make new law here. The jury's verdict finding fair use falls well within the boundaries of existing law. Oracle and several of its *amici* have requested that this Court find, as a matter of law, that Google's copying was not fair use. But any such ruling would almost

certainly require questionable judicial line-drawing and a departure from settled principles.

ARGUMENT

I. SOFTWARE COPYRIGHT LAW RELIES ON DOCTRINES LIKE FAIR USE TO BALANCE THE INTERESTS OF COPYRIGHT PROTECTION AND FOLLOW-ON INNOVATION

A. The Law Traditionally Has Recognized the Importance of Limiting Copyright To Allow Appropriate Follow-On Use of Facts, Ideas, and Functional Elements

Copyright law has long sought to vindicate two fundamental, but competing interests: On the one hand, it seeks to "assure[ ] authors the right to their original expression"; and on the other hand, it strives to "encourage[ ] others to build freely upon the ideas and information conveyed by a work." *Feist Publ'ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 349 (1991). To that end, copyright provides broad protections for an author's "creative expression," which "falls within the core" of the work copyright law is intended to encourage. *Campbell v. Acuff-Rose Music, Inc.*, 510 U.S. 569, 586 (1994). But an array of doctrines—developed largely in the context of literary and other artistic works—also makes clear that copyright law allows great latitude for the reuse of facts, ideas, and other functional elements underlying an author's work. *See Feist*, 499 U.S. at 350.

For example, under the "idea/expression" dichotomy, only expressive elements of a work can be protected, not facts or ideas. *See Feist*, 499 U.S. at 350. Even then, expressive elements may not be protected where they "merge" with the

idea because they are inextricable from, or "must necessarily be used as incident to," that idea. *Baker v. Selden*, 101 U.S. 99, 104 (1879). The merger doctrine "provides that, when there are a limited number of ways to express an idea, the idea is said to 'merge' with its expression, and the expression becomes unprotected." *Oracle Am., Inc. v. Google Inc.*, 750 F.3d 1339, 1359 (Fed. Cir. 2014); *see also Satava v. Lowry*, 323 F.3d 805, 812 (9th Cir. 2003). Similarly, the *scenes à faire* doctrine provides that, "when certain commonplace expressions are indispensable and naturally associated with the treatment of a given idea, those expressions are treated like ideas and therefore not protected by copyright." *Swirsky v. Carey*, 376 F.3d 841, 850 (9th Cir. 2004).

The principle that copyright allows for the reuse of facts, ideas, and functional elements is also deeply rooted in the fair use doctrine. Fair use—a judge-made doctrine that was codified in the 1976 Copyright Act—provides that copying copyrighted materials under certain circumstances will not constitute infringement. *Campbell*, 510 U.S. at 576. Fair use doctrine "'permits [and requires] courts to avoid rigid application of the copyright statute when, on occasion, it would stifle the very creativity which that law is designed to foster.'" *Id.* at 577 (alteration in original). A primary consideration in assessing fair use is "the nature of the copyrighted work." 17 U.S.C. § 107(2). That factor recognizes that "some works are closer to the core of intended copyright protection than

others." *Campbell*, 510 U.S. at 586. "Works that are creative in nature are 'closer to the core . . .' than are more fact-based works." *A&M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004, 1016 (9th Cir. 2001) (quoting *Campbell*, 510 U.S. at 586). As a result, "fair use is more likely to be found in [the copying of] factual works than [the copying of] fictional works." *Stewart v. Abend*, 495 U.S. 207, 237 (1990); *see also Harper & Row Publishers, Inc. v. Nation Enters.*, 471 U.S. 539, 563 (1985).

Ultimately, the copyright protection afforded to works that are more factual or functional in nature is "thinner" than the more robust protections afforded to purely creative works. *See Feist*, 499 U.S. at 349. For example, *Feist* concerned allegations by a telephone company that its copyright in a telephone directory had been infringed. *Id.* at 344. The Supreme Court held that, so long as "the selection and arrangement" of the phone numbers was "original," those "elements of the work are eligible for copyright protection." *Id.* at 349. Yet, "[n]otwithstanding a valid copyright, a subsequent compiler remains free to use the facts" in the original compilation, "so long as the competing work does not feature the same selection and arrangement." *Id.* The Court acknowledged that "[i]t may seem unfair that much of the fruit of the compiler's labor may be used by others without compensation." *Id.* But "[t]he primary objective of copyright is not to reward the labor of authors." *Id.* To the contrary, copyright law "encourages others" to

"freely" use the ideas and information underlying a copyrighted work to innovate and create something new. *Id.* at 350.

B. Case Law Reflects the Critical Role of Traditional Fair Use and Other Non-Infringement Doctrines for Computer Software

No less than literary or artistic works, software code also implicates the need to balance authors' rights against the goal of encouraging other parties to reuse and build upon ideas, facts, and functional elements. Software undoubtedly contains creative expression: "[A] programmer's choice of program structure and design may be highly creative and idiosyncratic." *Sega Enters. Ltd. v. Accolade, Inc.*, 977 F.2d 1510, 1524 (9th Cir. 1992), *as amended* (Jan. 6, 1993). At the same time, software has a fundamentally functional purpose—instructing a computer how to achieve a desired result. Many aspects of software serve as "utilitarian articles" that "contain many logical, structural, and visual display elements that are dictated by the function to be performed, by considerations of efficiency, or by external factors such as compatibility requirements and industry demands." *Id.* (citing *Comput. Assocs. Int'l, Inc. v. Altai, Inc.*, 982 F.2d 693, 708 (2d Cir. 1992)).

Thus, while "computer programs are literary works entitled to copyright protection," their "hybrid nature" requires that those protections be balanced against the need to foster and protect follow-on innovation. *Altai*, 982 F.2d at 712. For decades, courts have applied the "long-standing principles of copyright law"

developed in other contexts—including fair use and other non-infringement doctrines—to address the copyright issues presented by "computer programs." *Id.*

For example, as in the literary context, courts have resisted finding infringement where there are limited ways to express the concept underlying a computer program. In *Apple Computer, Inc. v. Microsoft Corp.*, 35 F.3d 1435 (9th Cir. 1994), Apple alleged that Microsoft's Windows program violated Apple's copyright in its "graphical user interface," or "GUI." *Id.* at 1439. Both Apple's software and Microsoft's software had a GUI that utilized windows, icons, and menus to present a "desktop" metaphor to users for navigating the programs and files on the computer. *Id.* at 1438. The Ninth Circuit noted that, "unlike purely artistic works such as novels and plays, graphical user interfaces generated by computer programs are partly artistic and partly functional." *Id*. at 1444. Considering "the limited number of ways that the basic ideas of the Apple GUI can be expressed differently," the court concluded that those functional components of Apple's software merited "only 'thin' protection, against virtually identical copying." *Id.* at 1442. Applying the merger doctrine and the *scenes à faire* doctrine, the court found that Windows did not infringe. *Id*. at 1444-45.

Courts have also applied doctrines like fair use to protect copying done for the purposes of reverse-engineering software to figure out how it works, and for building new programs that are compatible with existing ones. In *Sega*, Accolade

had copied Sega's object code as part of a process for developing video games that would run on Sega's popular Genesis video game console. 977 F.2d at 1514-15. The object code Accolade copied was "essentially utilitarian," covering, for example, the "subroutines" that allowed "the user to interact with the video game" and allowed "the game cartridge to interact with the console." *Id.* at 1525. Applying the fair use factors, the Ninth Circuit reasoned that, because "the nature of" Sega's code was primarily functional, it was entitled only to "thin" protection. *Id*. at 1524. The court also noted that, although Accolade copied "protected" elements of Sega's software, *id.* at 1525, it did so not to appropriate expressive content, but to access the "functional" elements of the code needed for "compatibility," *id*. at 1522-23. And while Sega urged that Accolade's copying was for the commercial purpose of creating "a competing product," the court held that did not "preclude[] a finding of fair use." *Id.* at 1522. To the contrary, a "public benefit" had resulted: Accolade's use had led to an "increase in the number of independently designed video game programs offered for use with the Genesis console." *Id.* at 1523. The court thus held that Accolade's copying was fair use. *Id*. at 1525.

The Ninth Circuit applied similar reasoning to reach a similar result in *Sony Computer Entertainment, Inc. v. Connectix Corp.*, 203 F.3d 596 (9th Cir. 2000). Sony had accused Connectix of copying Sony's "BIOS"—software that controlled

the basic functions of Sony's PlayStation game console. *Id.* at 603. Connectix had made copies of Sony's BIOS in connection with creating a new computer program that enabled users to play video games that had been developed for Sony's console on PCs. *Id*. The court noted that Sony's BIOS "lies at a distance from the core [of copyright protection] because it contains unprotected [functional] elements." *Id*. at 606. The BIOS code thus was entitled to a "lower degree of protection than more traditional literary works." *Id*. (citation and quotation marks omitted). The court also found that Connectix's program was a transformative use of the BIOS, because it "afford[ed] opportunities for game play in new environments." *Id*. The court held that Connectix's copying was fair use. *Id*. at 608.

Similar examples abound. Time and again, courts have held that copying software to access its functional elements—to develop follow-on or interoperable and compatible technologies—is fair use that furthers the purposes of the Copyright Act. *See, e.g.*, *Lewis Galoob Toys, Inc. v. Nintendo of Am., Inc.*, 964 F.2d 965, 971 (9th Cir. 1992) (fair use for consumers to use a product that was compatible with and altered features of Nintendo's games); *Lexmark Int'l, Inc. v. Static Control Components, Inc.*, 387 F.3d 522, 544 (6th Cir. 2004) (fair use protected copying that allowed defendant to create a compatible toner cartridge); *Atari Games Corp. v. Nintendo of Am. Inc.*, 975 F.2d 832, 843-44 (Fed. Cir. 1992)

(reverse-engineering a game console's software to make compatible games was fair use).

As these and other cases attest, a robust and well-established body of law applies long-settled exceptions to and limitations on copyright protection in the context of software programs. Courts have, over decades, developed an appropriately balanced framework for addressing the "inherent tension in the need simultaneously to protect copyrighted material and to allow others to build upon it." *Campbell*, 510 U.S. at 575 (citation omitted).

II. INDUSTRY EXPERIENCE SHOWS THAT THE EXISTING, BALANCED APPROACH TO COPYRIGHT AND FAIR USE HAS FOSTERED INNOVATION IN COMPUTER SOFTWARE

A number of *amici* in this case have urged that, for policy reasons, fair use should be circumscribed in the context of software programs. For example, they assert that "allowing a competitor to use a copyrighted work for the same purpose in a related technology . . . diminishes the incentive for copyright owners to create in the first place." Copyright Alliance Br. 22. They therefore urge that adherence to a robust fair use doctrine "will harm both creators and the public." IP Scholars Br. 19. But industry experience in the wake of decisions such as *Sega*, *Connectix*, and *Apple v. Microsoft* proves otherwise. The robust application of the fair use/non-infringement doctrines in those cases did not harm creativity in the affected fields; rather, in some ways it fostered the very "growth in creative

expression . . . that the Copyright Act was intended to promote." *Sega*, 977 F.2d at 1523.

History shows that the non-infringement decision in *Apple v. Microsoft* promoted innovation, to the benefit of the entire industry. The Ninth Circuit's decision that Apple could not monopolize graphical user interfaces using a "desktop" metaphor, *see Apple*, 35 F.3d at 1443, led to a dramatic expansion in the use of GUIs in the personal computer market. Today, there are over 1.2 billion PCs featuring the Windows graphical user interface.[3] Yet Apple now has the largest market capitalization of any company in the U.S., worth over $700 billion.[4] In retrospect, it is clear that the Ninth Circuit's decision did not decrease Apple's incentive to continue to create new versions of its graphical user interface; it merely allowed Microsoft and other companies to build on the underlying ideas to bring new products to hundreds of millions of additional consumers.

Similarly, the video game industry has flourished since the *Sega* decision. Before *Sega*, game development was largely tied to the maker of the game console (and its selected licensees). The Ninth Circuit's holding that independent, third-

[3] Matt Rosoff, *Right Now, There Are 1.25 Billion Windows PCs Worldwide*, Business Insider (Dec. 6, 2011), http://www.businessinsider.com/right-now-there-are-125-billion-windows-pcs-worldwide-2011-12.

[4] Lucinda Shen, *Amazon and the Race To Be the First $1 Trillion Company*, Fortune (Mar. 31, 2017), http://fortune.com/2017/03/31/amazon-stock-trillion-dollar-company-apple-tesla-google.

party video game developers could lawfully reverse-engineer game console software for the purpose of developing compatible games, however, "facilitat[ed] the entry" of "new competitor[s]" in the field. *Sega*, 977 F.2d at 1523. In the 25 years since *Sega*, the video game industry has grown to generate over $30 billion in annual U.S. revenues.[5] Microsoft chose to enter the video game console market after *Sega* was decided, releasing the "Xbox" line of video game consoles.[6] Microsoft has invested billions of dollars in creating its own games for its consoles, but Microsoft and its customers have also benefited significantly from third-party software developers expanding the array of games that can be played on the Xbox.[7]

Nor did the growth in the video game market overall come at the expense of the original creators of the platforms. In *Connectix*, Sony argued that it would lose sales and profits if Connectix were permitted to create a competing platform that could run games originally created for Sony's PlayStation console. 203 F.3d at 607. But the latest iteration of the Sony PlayStation has sold more than 50 million

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[5] *U.S. Video Game Industry Generates $30.4 Billion in Revenue for 2016*, Entm't Software Ass'n (Jan. 19, 2017), http://www.theesa.com/article/u-s-video-game-industry-generates-30-4-billion-revenue-2016.

[6] Zorine Te, *Microsoft Investing $1 Billion into Xbox One Games*, GameSpot (May 29, 2013), https://www.gamespot.com/articles/microsoft-investing-1-billion-into-xbox-one games/1100-6408992.

[7] *Id*.

units,[8] and generated over $1 billion in profits for the company in 2016.[9] Sony and the rest of the video game industry have continued to thrive after fair use decisions like *Connectix* and *Sega*.

To be sure, the protections and remedies afforded by copyright law are critically important to many creators, publishers, and distributors in the software and video game industries.[10] But those protections and remedies have remained useful and effective alongside a balanced fair use jurisprudence.

III. THE COURT SHOULD NOT DESTABILIZE THE SETTLED BALANCE BETWEEN COPYRIGHT PROTECTION AND FAIR USE ON WHICH THE SOFTWARE ECOSYSTEM DEPENDS

Beyond video games and GUIs, today's software industry as a whole is dependent upon established copyright principles. Existing law has fostered a thriving, interdependent software ecosystem that contributes over $260 billion to the U.S. economy annually.[11] Thus, even if this Court were of the view that this case somehow presents novel considerations, "[s]ound policy" weighs against

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[8] Ben Gilbert, *The PlayStation 4 Just Hit Another Incredible Milestone*, Business Insider (Dec. 7, 2016), http://www.businessinsider.com/playstation-4-sales-2016-12.

[9] Nick Summers, *PlayStation 4 Has Never Been More Important to Sony*, Engadget (Apr. 28, 2017), https://www.engadget.com/2017/04/28/sony-playstation-earnings-fiscal-year-2017.

[10] *See, e.g.*, 17 U.S.C. §§ 501 *et seq*. & 1201 *et seq*. (providing remedies against infringement and circumvention of technological protection measures).

[11] *Software Industry Facts and Figures*, Business Software Alliance, http://www.bsa.org/country/Public%20Policy/~/media/Files/Policy/Security/General/sw_factsfigures.ashx (last visited May 21, 2017).

judicially "expand[ing] the protections afforded by the copyright" in ways that may upend settled expectations. *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 431 (1984). And judicial innovation is unwarranted in any event, because the jury's verdict falls within the boundaries of settled fair use law.

A. The Software Industry Depends on the Current Settled Balance Between Copyright Protection and Fair Use

The software industry has changed greatly in the years since cases like *Sega*, *Connectix*, and *Apple v. Microsoft* were decided. Yet the proper functioning of today's software ecosystem remains heavily reliant on the fair use principles those cases recognized.

Among other things, the days when consumers purchased individual computer programs and stored one copy of each program together with all their data on a single computer are long gone. Today, users access their computer programs, documents, photos, and music from multiple devices, including PCs, Macs, smartphones, and tablets. And those programs and data are stored by and delivered to consumers by companies under myriad business models, including proprietary and open source development models, advertising and subscription payment options, and "software as a service" models using cloud computing.

Despite the disparate devices consumers use to access their information, and the disparate services for storing that information and delivering it to them, consumers demand that their devices and services all interoperate with each other.

Consumers expect to be able to take a photo on their Apple phone, save it onto Google's cloud servers, and edit it on their Surface tablets. That works seamlessly, but only because of efforts to make these devices compatible and to provide additional functionality that consumers demand on top of existing platforms.

That interoperability and improved functionality has been achieved through a variety of legal mechanisms embodied in current copyright law—*all* of copyright law, including fair use, not just the protection afforded to copyright owners. In some instances, companies have followed a proprietary model where the creator of the original computer program controls all aspects of the development of interfaces.[12] More frequently, however, third parties have spurred the development of new functionality, often with the approval of the original software developer.[13] And most pertinent for this case, third parties often have developed useful functionality for consumers *without* the permission of copyright owners—yet within the limitations and exceptions of copyright law. *See* pp. 10-17, *supra*. Ensuring that all of these options remain available to computer program developers

[12] *See, e.g.*, *Vertical Integration Works for Apple – But It Won't for Everyone*, Wharton School of the University of Pennsylvania (Mar. 14, 2012), http://knowledge.wharton.upenn.edu/article/vertical-integration-works-for-apple-but-it-wont-for-everyone.

[13] *See, e.g.*, *Microsoft and Open Systems: The Domino Effect*, Wash. Tech. (Aug. 10, 1995), https://washingtontechnology.com/Articles/1995/08/10/Microsoft-and-Open-Systems-The-Domino-Effect.aspx.

is essential if the software industry is to continue to rapidly produce new functionality in response to consumer demand.

Fair use cases like *Sega* and *Connectix* in the 1990s paved the way for third-party offerings and innovation in the video game market. The principles those cases established made possible, and are deeply enmeshed in, the current software ecosystem. And they will be even more critical as the industry embarks on next-generation innovations. The coming "Internet of Things"—in which everything from thermostats to pace makers to traffic lights will access the Internet—will push the demands of interoperability to new levels.[14] Likewise, copyright law doctrines, including fair use, will continue to be critical in affording innovators access to existing technologies so they can develop additional functionalities. For example, in artificial intelligence, companies are developing highly sophisticated deep learning systems, yet it is recognized that third parties may have ingenious ideas for services that utilize such systems to meet the particular needs of their customers.[15]

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[14] *See The Internet of Things: An Overview* at 7-20, 29-34, Internet Soc'y (Oct. 2015), https://www.internetsociety.org/sites/default/files/ISOC-IoT-Overview-20151014_0.pdf.

[15] *See* Mark Kaelin, *Microsoft Cognitive Services: Leading the AI Charge*, TechRepublic (May 22, 2017), http://www.techrepublic.com/article/build-2017-ai-will-change-everything-and-microsoft-looks-to-lead-the-way/#ftag=YHF87e0214?yptr=yahoo; Kalev Leetaru, *Recapping Google NEXT 2017: Deep Learning as a Service*, Forbes (Mar. 24, 2017), https://www.forbes.com/sites/kalevleetaru/

For all of those reasons, this Court should be deeply wary of changing the current balance between copyright protections for creative expression and permissible fair use of largely functional software code. Companies have based their decisions regarding what technologies to develop and how to structure business transactions on settled understandings of existing law. A thriving software ecosystem has grown up in a rich and stable legal environment. Changes to the existing balance could have a profoundly destabilizing effect on the entire software industry.

B. This Case Falls Within the Boundaries of Settled Fair Use Law

The jury's verdict falls well within the permissible boundaries of fair use. The jury was properly instructed on the fair use factors. And it heard conflicting expert testimony concerning those factors. For example, while the jury heard Oracle's experts testify about the creativity that went into designing the Java APIs, it also heard Google's experts testify that "functional considerations predominated" in the design of that code. Appx44. The jury also heard that Java was originally designed to be run on desktops and laptops, whereas Google copied portions of the Java API in order to create Android—a new operating system for smartphones. Appx43. And while Oracle asserted that the copied code—though a small portion of the Java platform—was the "heart" of Oracle's work, Google's experts testified

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that Google copied the minimum necessary to make a platform that would be familiar to Java developers. Appx45. As the district court explained, the "jury could reasonably have found for either side," and the final decision came down to a "series of credibility calls." Appx29. While another jury may have reached a different conclusion if it found different facts, the ultimate result here is within the range of reasonableness established by precedent. *See* pp. 10-14, *supra*; *DC Comics Inc. v. Reel Fantasy, Inc.*, 696 F.2d 24, 28 (2d Cir. 1982) ("The fair use defense turns not on hard and fast rules but rather on 'an examination of the facts in each case.'").

A decision overturning the jury's verdict, and finding that there was no fair use *as a matter of law*, would almost certainly require questionable judicial line-drawing and a departure from settled principles. For example, Oracle places great emphasis on the fact that "Google's copying was entirely commercial." Oracle Br. 28-29. But so too were the alleged infringers' uses in *Sega*, *Connectix*, and *Apple v. Microsoft*. *See* pp. 11-14, *supra*. Indeed, virtually all copying of software code for the purpose of achieving interoperability with existing products is undertaken for a commercial purpose. A decision placing undue emphasis on the commercial nature of the copying here would fundamentally alter the balance of fair use in countless software cases.

Claims that Google's use cannot be "transformative" because it literally copied Java APIs (and those APIs have "the same purpose" on Google's Android platform as they do on Java), Oracle Br. 29-37, place undue emphasis on the purpose of the *copied portion* of the prior work. In the fair use analysis, the focus properly is on "whether the *new work* . . . adds something new, with a further purpose." *Campbell*, 510 U.S. at 579 (emphasis added); *see also Swatch Grp. Mgmt. Servs. Ltd. v. Bloomberg L.P.*, 756 F.3d 73, 84 (2d Cir. 2014) (even literal copying warranted if justified by the "altered purpose or context of the work"). Under settled law, Google's new work can be transformative despite its literal copying of the Java APIs because it serves a "further purpose" of enabling programs built on Java to run on the separate Android platform. *Cf. Connectix*, 203 F.3d at 603 (finding defendant's product, which "create[d] a new platform, the personal computer, on which consumers can play games designed for the Sony PlayStation," sufficiently "transformative" for fair use purposes). A ruling that forecloses that outcome as a matter of law would, again, turn industry expectations on their head.

Ultimately, Oracle faults Google for trying to "capitalize on the fact that software developers were already trained and experienced in using the Java API packages at issue." Oracle Br. 46 (citation and quotation marks omitted). But copyright is not "primarily designed to provide a special private benefit" to a

software creator as the copyright holder. *Sony*, 464 U.S. at 429. To the contrary, copyright's purpose is to "promote the Progress of Science and useful Arts" for the benefit of society as a whole. U.S. Const. art. I, § 8, cl. 8. Copyright law thus expressly "encourages others to build freely upon the ideas and information conveyed by a work." *Feist*, 499 U.S. at 349-50. A robust fair use doctrine that permits some copying of functional elements of existing software platforms for the purpose of opening up new platforms for developers' work serves that purpose. The jury's determination that such use is fair should not be barred as a matter of law.

CONCLUSION

The district court's judgment should be affirmed.

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Respectfully submitted,

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CERTIFICATE OF SERVICE

I certify that today, May 30, 2017, I electronically filed the foregoing Brief for *Amici Curiae* Microsoft Corporation, Red Hat, Inc., and Hewlett Packard Enterprise Company with the Clerk of the Court for the U.S. Court of Appeals for the Federal Circuit using the appellate CM/ECF system. All participants in the case are registered CM/ECF users and will be served by the appellate CM/ECF system.

May 30, 2017 /s/ Jeffrey A. Lamken

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