No. 18-956

In the Supreme Court of the United States

GOOGLE LLC,

Petitioner,

v.

ORACLE AMERICA, INC.,

Respondent.

On Writ of Certiorari to the United States Court of Appeals for the Federal Circuit

BRIEF OF RALPH OMAN AS AMICUS CURIAE SUPPORTING RESPONDENT

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INTEREST OF AMICUS CURIAE[1]

Amicus curiae Ralph Oman served as the Register of Copyrights from 1985 to 1993. As Register, he advised Congress on copyright policy and testified more than forty times on proposed copyright legislation and treaties, and on the state of the U.S. Copyright Office. Before then, Mr. Oman served on the staff of the Subcommittee on Patents, Trademarks, and Copyrights, including as Chief Counsel from 1982-85. He was personally involved in the final stages of the drafting and passage of the Copyright Act of 1976, 17 U.S.C. § 101 et seq. As Register, Mr. Oman was responsible for helping transition U.S. copyright law from the analog to the digital age, and was part of the government team that convinced the world community to protect computer software as a literary work under national copyright laws. Mr. Oman is currently the Pravel, Hewitt, Kimball, and Kreiger Professorial Lecturer in Intellectual Property and Patent Law at The George Washington University Law School, where he has taught copyright law for twenty-five years.

Drawing on his extensive knowledge of copyright law and his first-hand experience as Register, Mr. Oman submitted two amicus briefs in this case before the Federal Circuit, urging that court to reverse the district court's decisions on both copyrightability and

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[1] The parties have consented to the filing of this brief. No counsel for a party authored this brief in whole or in part; and no such counsel, any party, or any other person or entity—other than amicus curiae and his counsel—made a monetary contribution intended to fund the preparation or submission of this brief.

fair use. Mr. Oman now writes to urge this Court to uphold the Federal Circuit's judgment and finding of copyright liability in this case, which is consistent with the traditional copyright principles embodied in the Copyright Act, as well as the history and purpose of the fair use doctrine. Particularly given his prior service in the development of U.S. copyright law, Mr. Oman has a direct interest in the proper resolution of the issues presented by this case.

INTRODUCTION AND SUMMARY OF ARGUMENT

This case presents two critical questions concerning the scope of copyright law in the 21st century. The first concerns the copyrightability of particular computer programs, and the second addresses the application of fair use principles in the same context. In extending copyright protection to computer programs, Congress has already spoken clearly and unequivocally on both questions presented. Whatever the merits of the policy arguments raised by Google and others, expressive elements of computer software are protected under the Copyright Act just like other creative works, and the protectability of software should be analyzed under traditional copyright principles.

Copyright protects both the literal and non-literal elements of creative works, including a work's structure, sequence, and organization. It is undisputed in this case that the computer program at issue contains the requisite minimum degree of originality for copyright protection, *see* 17 U.S.C. § 102(a), and that Google LLC (Google) copied, verbatim, the declaring code and organization of that code in 37 of Oracle America, Inc.'s (Oracle's)

application programming interface (API) packages, constituting 11,330 lines of copyrighted computer code. *See* Oracle Br. 14 & n.2; Pet. App. 7a, 139a-40a. The record also makes clear that Google copied these elements of Oracle's copyrighted work in order to capitalize on computer programmers' familiarity with Oracle's popular program, thereby increasing the attractiveness of Google's competing Android product. In other words, Google did it for commercial gain.

Google nevertheless seeks to excuse that blatant copying and commercial free-riding by claiming that Oracle's work is not protected by copyright, or in the alternative, that its copying of Oracle's computer code is excused under the doctrine of fair use. Both arguments, however, fly in the face of long-standing principles of copyright law codified in the Copyright Act, which Congress extended to software in 1980 when it amended the Copyright Act explicitly to encompass computer programs. After weighing the merits of policy arguments in favor of robust, versus more limited, copyright protection for computer programs, Congress ultimately chose to protect computer programs like any other copyrighted work. *See* Pub. L. No. 96-517, § 10, 94 Stat. 3015, 3028 (1980); 17 U.S.C. § 101 (definition of "computer program" and "[l]iterary works"). Traditional copyright principles should therefore govern the resolution of this case.

Under these principles, Oracle's computer program is fully protected by copyright, as the Federal Circuit correctly recognized. The "functionality" of the software code at issue does not bar copyright protection, because copyright protects Oracle's particular expression. *See* 17 U.S.C. § 102; *Baker v. Selden*, 101 U.S. 99, 103-04 (1880). And

because Oracle could have chosen a variety of different modes of expression to achieve these functions, the merger doctrine does not apply. Nothing prevented Google from writing its own software code to achieve the same results. For similar reasons, the fair use doctrine does not excuse Google's blatant infringement. Google appropriated Oracle's software code for convenience and commercial advantage, not for any of the recognized purposes behind fair use. As explained below, such commercial free-riding has never been considered fair use.

This Court should give effect to Congress's intent and hold that Google's conceded copying of the Oracle APIs infringes on Oracle's copyrighted works. The judgment of the court of appeals should be affirmed.

ARGUMENT

I. AFTER CAREFULLY STUDYING THE MATTER, CONGRESS CHOSE TO PROTECT COMPUTER PROGRAMS VIA COPYRIGHT

Congress's decision to protect computer programs via copyright was not inevitable. *See* Ralph Oman, *Computer Software As Copyrightable Subject Matter:* Google v. Oracle*, Legislative Intent, and the Scope of Rights in Digital Works*, 31 Harv. J. L. Tech. 639, 649 (2018) ("JOLT Article"). In the Copyright Act of 1976, which significantly revised the Copyright Act of 1909 to address new technologies, Congress maintained the then-status quo with respect to the protection of computer programs.[2] The 1976 Copyright Act did not

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[2] The Copyright Office began registering computer software as literary works in 1964, but under the Rule of Doubt. National Commission on New Technological Uses of Copyrighted Works, *Final Report* 15 (1979). Under the Rule of Doubt, the Copyright

change the rights of copyright owners with respect to computer programs that existed under common law, state law, or the Copyright Act of 1909. *See* Pub. L. No. 95-553, § 117, 90 Stat. 2541, 2565 (1976). Instead, Congress created the National Commission on New Technological Uses of Copyrighted Works (CONTU) and directed CONTU to study this new technology and recommend to Congress "definitive copyright provisions to deal with the situation." H.R. Rep. No. 94-1476, at 116 (1976) (H.R. Rep.).

This Court typically presumes that Congress is aware of "existing law pertinent to the legislation it enacts." *See Goodyear Atomic Corp. v. Miller,* 486 U.S. 174, 184-85 (1988). Here, the CONTU report confirms that Congress was fully aware of the principles underlying copyright when it amended the 1976 Act to protect computer programs. In 1979, CONTU issued a report recommending that Congress extend the traditional copyright principles codified in the 1976 Act to computer programs, and Congress adopted the majority's recommendation. *See* National Commission on New Technological Uses of Copyrighted Works, *Final Report* 1, 12-13, 18-19 (1979) (CONTU Rep.); Pub. L. No. 96-517, § 10, 94 Stat. 3015, 3028 (1980). The report was accompanied by a lengthy statement explaining the commission's recommendation, as well as two dissents.

In that regard, the CONTU report forms a critical part of the history of the amendments at issue, and

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Office will register a copyright claim even though the Office has "reasonable doubt as to whether the material submitted for registration" may be copyrighted. *See* U.S. Copyright Office, *Compendium of U.S. Copyright Office Practices* § 607 (3d ed. 2017), https://www.copyright.gov/comp3/docs/compendium.pdf.

underscores that Congress intended traditional copyright principles to apply to computer programs. *See, e.g.*, *Comput. Assocs. Int'l, Inc. v. Altai, Inc.*, 982 F.2d 693, 703-04, 708 (2d Cir. 1992) (discussing CONTU report at length); *Sega Enters. Ltd. v. Accolade, Inc.*, 977 F.2d 1510, 1519-20 (9th Cir. 1992) (citing CONTU report); *Apple Comput., Inc. v. Franklin Comput. Corp.*, 714 F.2d 1240, 1247-48, 1251-52 (3d Cir. 1983) (same). Therefore, it should be presumed that Congress incorporated those principles into the 1980 amendments to the Copyright Act addressing computer programs, except where Congress specifically provided otherwise.

A. The CONTU Report

1. The majority's recommendations

In recommending that computer programs be protected like any other copyrightable work, CONTU recognized their creative aspects, noting that computer programs consist of "the careful fixation of words, phrases, numbers, and other symbols in various media," and emphasizing that "[c]omputer programs are the product of great intellectual effort." CONTU Rep. 10-11. But because the "cost of developing computer programs" exceeds "the cost of their duplication," CONTU concluded that computer programs would only be created where developers could recoup the cost of development. *Id.* at 11. However, if computer programmers could "spread [their] costs over multiple copies of the work," with protection against unauthorized copying and distribution by others, they would have incentive to create new programs. *Id.* Thus, CONTU found that "the continued availability of copyright protection for computer programs is desirable." *Id.* This approach

was consistent with the historic development of U.S. copyright law, which has consistently expanded to keep up with changing technologies. *Id.* at 11, 15-16.

Accordingly, CONTU concluded that computer programs should be treated like other creative works: protectable under copyright law as long as they are original and contain at least a modicum of creativity. *Id.* at 18. And, because the scope of copyright protection for computer programs would be based on the same doctrines and principles that protected all other works, relatively few changes would be needed to the Copyright Act. *Id.* at 10; *see also id.* at 18.

CONTU further recommended that the traditional limitations on copyright should still apply: copyright protection could not be used to protect "ideas, procedures, processes, systems, methods of operation, concepts, principles, or discoveries." *Id.* at 18. This principle, sometimes referred to as the idea/expression dichotomy, is codified in § 102(b) of the Copyright Act. *See Golan v. Holder*, 565 U.S. 302, 328 (2012). CONTU acknowledged that the line between "copyrightable computer programs and uncopyrightable processes or methods of operation [under this rule] does not always seem to 'shimmer with clarity,'" but the commission did not view this limitation as a bar to copyright protection. CONTU Rep. 18.

In reaching this conclusion, CONTU relied on this Court's decision in *Baker v. Selden*, 101 U.S. 99 (1880), which held that a valid copyright in a book describing a system of accounting did not prevent others from using the accounting system itself. CONTU Rep. 18-19. With respect to computer software, CONTU concluded, consistent with *Baker*, that copyright "protects the program so long as it

remains fixed in a tangible medium of expression but does not protect the electromechanical functioning of the machine." *Id.* at 20. According to CONTU, both houses of Congress agreed on this principle when they recognized that:

> Section 102(b) is intended, among other things, to make clear *the expression adopted by the programmer is the copyrightable element in a computer program*, and that the actual processes or methods embodied in the program are not within the scope of the copyright law.

Id. at 19 (quoting S. Rep. No. 94-473, at 54 (1976)); *see also* H.R. Rep. at 57. In other words, the expression of the computer program—the computer code—is protectable even if the underlying method or process is not.

CONTU acknowledged that computer programs have a "functional" component, in that the computer code instructs the computer to function. But it explained that "copyright practice past and present . . . recognizes copyright protection for a work of authorship regardless of the uses to which it may be put." CONTU Rep. 21. Copyright protection is not denied to other creative works "simply because of their utilitarian aspects"; thus, CONTU concluded, protection should not be denied to computer programs just because "the words of a program are used ultimately in the implementation of a process." *Id.*

By contrast, CONTU explained, the process itself—"[t]he movement of electrons through the wires and components of a computer"—was something "over which copyright has no control." *Id.* at 22. Copyrighting computer programs, therefore

"leads to the result that anyone is free to make a computer carry out any unpatented process, but not to misappropriate another's writing to do so." *Id.* The protection of computer programs thus fits comfortably within the existing copyright paradigm.

2. The CONTU dissents

Although the commission was unanimous in its belief that computer programs should receive some form of legal protection, it divided over the appropriate form of that protection. *Id.* at 10-11. Of the fourteen commissioners, Commissioners Hersey and Karpatkin dissented from the commission's recommendation that copyright protection be extended to computer programs. The principle sticking point between the two sides was the "functional" nature of computer programs.

Commissioner Hersey concluded that computer programs should not be protected by copyright because a computer program "is a machine-control element, a mechanical device, having no purpose beyond being engaged in a computer to perform mechanical work." *Id.* at 28. In other words, to Hersey, the program should not be protectable because it merely controlled the computer; it was not a mode of creative expression. *Id.* at 27-28. Commissioner Karpatkin shared Hersey's "doubts and concerns sufficiently to lead" her to dissent as well. *Id.* at 38. And, while Commissioner Nimmer concurred in the majority's recommendation that computer programs should be protected by copyright, he likewise shared some of Hersey's concerns. *Id.* at 26.

In short, after fully airing the competing views on whether computer programs should receive copyright

protection, CONTU concluded that they should, and submitted this recommendation to Congress.

B. Following CONTU's Recommendations, Congress Amended The Copyright Act To Protect Computer Programs

Ultimately, Congress rejected the CONTU dissenters' views and adopted all of the majority's recommended changes to the 1976 Act. *See* Pub. L. No. 96-517, § 10, 94 Stat. 3015, 3028 (1980). In 1980, Congress amended the 1976 Act to include the definition of a "computer program"—"a set of statements or instructions to be used directly or indirectly in a computer in order to bring about a certain result." 17 U.S.C. § 101. Computer programs meeting this definition are protected under the Copyright Act as "[l]iterary works," defined as "works, other than audiovisual works, expressed in words, numbers, or other verbal or numerical symbols or indicia." 17 U.S.C. § 101*; id.* § 102(a) (protecting copyright in "original works of authorship," including "literary works"); *see also, e.g.*, *Atari Games Corp. v. Nintendo of Am., Inc.*, 975 F.2d 832, 838 (Fed. Cir. 1992) (recognizing that computer programs are "literary works"); H.R. Rep. at 54 ("literary works" include computer programs to the extent that they reflect original expression). Amendments to other provisions in the Act make clear that a computer program may be copyrighted. *See, e.g.*, 17 U.S.C. §§ 109(b)(1)(A), 117 (dealing exclusively with computer programs), 506(a)(3)(A) (defining criminal infringement to include infringement of copyrighted computer programs).

It is therefore generally accepted today, and undisputed by Google (at 17), that computer software

is subject to copyright protection. *See* 1 Melville B. Nimmer & David Nimmer, *Nimmer on Copyright* § 2A.10[B] (2019). In rejecting Commissioner Hersey's concern about the "functional" nature of computer code, Congress recognized that a literary work can have both functional and expressive aspects. Indeed, the very definition of a "computer program" in the Act recognizes the functional nature of computer software, yet extends copyright protection to the expressive aspects of these programs. Nor does the Act distinguish between different types of computer code. *See Apple Comput., Inc. v. Formula Int'l, Inc.*, 725 F.2d 521, 525 (9th Cir. 1984); *see also* JOLT Article at 649. Despite the views of the CONTU dissenters that copyright protection should be denied to computer software because of its "functional" aspects, Congress chose a different path. Because Congress chose to protect computer programs via copyright, traditional copyright principles must apply to the questions presented in this case.

II. TRADITIONAL COPYRIGHT PRINCIPLES COMPEL THE CONCLUSION THAT GOOGLE'S COPYING OF ORACLE'S APIs INFRINGED ORACLE'S COPYRIGHTS

Applying traditional copyright principles, the Federal Circuit properly concluded that Oracle's APIs are copyrightable, and that Google's use of these APIs does not qualify as a permitted fair use.

A. Copyright Principles Protect Oracle's APIs

Traditional copyright principles compel the conclusion that the Oracle program at issue is protected. Here, it is undisputed that Google copied

11,330 lines of Oracle's computer code, and that the code contains the requisite minimum degree of originality for copyright protection. *See* Oracle Br. 14 & n.2; Pet. App. 7a, 139a-40a; *see also* Google Br. 17. Google also copied the non-literal elements of Oracle's code—i.e., the structure, sequence, and organization (SSO) of 37 of Oracle's API packages. Pet. App. 7a. As explained below, Oracle has a protected interest in both the literal lines of code in its program, and in the SSO of the Java API packages. Google has therefore committed copyright infringement absent an exception, like fair use, that would preclude liability.

To excuse its copying, Google relies on 17 U.S.C. § 102(b), which codifies the idea/expression dichotomy articulated in *Baker*, and provides that copyright protection does not extend to any process, system, or "method of operation" that a copyrighted work describes or embodies. *See* Google Br. 17-18; *see also supra* at 7-8. According to Google, because the code at issue represents a "method of operation," and because the "organizational system" of the APIs is "entirely functional," the code cannot receive copyright protection. Google Br. 19. That is incorrect.

1. Functional aspects of a work do not preclude copyright protection of the work as a whole

The fact that a work contains both functional and expressive elements does not automatically deprive it of copyright protection. As CONTU noted, this Court's decision in *Baker v. Selden* is "often misconstrued as imposing a limit on copyrightability of works which express ideas, systems, or processes," but "[t]he case properly stands for the proposition that using the system does not infringe the copyright in

the description." CONTU Rep. 18-19. Indeed, *Baker* recognized that expressive elements of a work could be copyrighted, even where the underlying method or process described could not. *See Baker*, 101 U.S. at 101-02.

In *Baker,* the Court held that the copyright on a book describing a system of accounting did not prevent others from using accounting forms that were independently created but substantially similar to those included in the book, where the forms consisted of ruled lines, blank columns, and headings of accounts. *Id.* at 104-05. Because the accounting method itself could not be copyrighted, and the "ruled lines and headings of accounts must necessarily be used" in order to practice the accounting method, the Court held that copyright on the book could not bar the creation of forms with similar elements without also barring the use of the method itself. *Id.*

The Court explained that the description or explanation of a function or method, even for "well-known systems, may be the subject of a copyright," but "no one would contend that the copyright of the treatise would give the exclusive right to the art or manufacture described therein." *Id.* at 102. The Court grounded this distinction in the difference between patent and copyright: patent gives the inventor "an exclusive property" in the process itself, whereas copyright merely protects the particular expression or description of the process. *Id.*; *see also, e.g.*, *Mazer v. Stein*, 347 U.S. 201, 217-18 (1954) (recognizing same principle); *Atari*, 975 F.2d at 839 (same).

As to computer programs specifically, CONTU and Congress both recognized that all computer programs are in some sense functional, yet the Copyright Act

explicitly protects computer programs anyway. *See* 17 U.S.C. § 101 (definition of "computer program"); CONTU Report 19-20; JOLT Article at 642-43. And while distinguishing between a method or idea and the expression of it in the context of computer programs requires careful analysis, lower courts have been applying the idea/expression dichotomy to computer programs for decades. As in *Baker*, courts have long recognized that while an underlying computer method, function, or process may not be copyrightable, the *expression* that implements that method or function, as articulated in the computer code, *is* protectable. *See, e.g.*, *Lexmark Int'l, Inc. v. Static Control Components, Inc.*, 387 F.3d 522, 534-35 (6th Cir. 2004); *Mitel, Inc. v. Iqtel, Inc.*, 124 F.3d 1366, 1372 (10th Cir. 1997); *Apple Comput., Inc. v. Microsoft Corp.*, 35 F.3d 1435, 1443 & n.11 (9th Cir. 1994); *Kepner-Tregoe*, *Inc. v. Leadership Software, Inc.*, 12 F.3d 527, 535-36 (5th Cir. 1994); *Altai*, 982 F.2d at 703; *Atari*, 975 F.2d at 839-40; *Toro Co. v. R&R Prods. Co.*, 787 F.2d 1208, 1212 (8th Cir. 1986); *Franklin Comput.*, 714 F.2d at 1251.

Moreover, protection of the expressive elements of copyrighted works protects not only the literal words or numbers on the page (or in the computer hard drive), but also the non-literal aspects of the work, including its structure, sequence, and organization. *See, e.g.*, *Feist Publ'ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 348 (1991) (holding that a factual work still "meets the constitutional minimum for copyright protection if it features an original selection or arrangement" of the facts). Courts have consistently extended this principle to computer programs as well. *See, e.g.*, *Gen. Universal Sys., Inc. v. Lee*, 379 F.3d 131, 142 (5th Cir. 2004); *Whelan Assocs., Inc. v. Jaslow*

Dental Lab., Inc., 797 F.2d 1222, 1233 (3d Cir. 1986). As one lower court explained, "[i]f the non-literal structures of literary works are protected by copyright, and if computer programs are literary works . . . then the non-literal structures of computer programs are protected by copyright." *Altai*, 982 F.2d at 702.

Accordingly, while an individual element of a copyrighted work may not be protectable, this does not preclude copyright protection for the rest of the work, where the individual elements are expressed or arranged in a particular, creative fashion.

2. The merger doctrine only applies where there are limited ways to express an idea

The merger doctrine is an exception to the general rule that the expression of an idea may be copyrighted even while the idea itself may not. Where there are only a limited number of ways to express an idea, the idea and the expression "merge" to prevent the author from getting copyright protection for the idea. *See, e.g.*, *Gates Rubber Co. v. Bando Chem. Indus., Ltd.*, 9 F.3d 823, 838 (10th Cir. 1993); *Altai*, 982 F.2d at 707-08; *Herbert Rosenthal Jewelry Corp. v. Kalpakian*, 446 F.2d 738, 742 (9th Cir. 1971); *see also* 4 Nimmer on Copyright § 13.03[B][3]. *Baker* itself was essentially decided on merger grounds—to have extended copyright protection to the ruled lines, columns, and headings of the accounting forms would have been akin to copyrighting the accounting system itself. *See* 101 U.S. at 104-05. Thus, the copyright on Selden's book did not prevent Baker from creating his own version of the accounting forms that could be used with Selden's system. *Id.*

The CONTU majority recognized that the merger doctrine would apply in the context of computer programs, noting that copyright protection for a program should not "threaten to block the use of ideas or program language previously developed by others when that use is necessary to achieve a certain result." CONTU Rep. 20. CONTU explained, however, that, "[w]hen other language *is* available, programmers are free to read copyrighted programs and use the idea embodied in them in preparing their own works." *Id.* Courts have likewise recognized that the merger doctrine does not apply where the idea or function at issue can be expressed in *multiple* ways. *See, e.g.*, *Franklin Comput.*, 714 F.2d at 1253; *Atari*, 975 F.2d at 840; *Altai*, 982 F.2d at 708. Thus, while a software developer cannot get copyright protection for a "desired result," he or she can get protection for the code that directs the computer to perform the calculation, where, as here, the instruction can be expressed in different ways.

By way of example from Mr. Oman's experience, historically the Copyright Office refused to register copyrights for typeface designs. *See* 37 C.F.R. § 202.10(c) (1977); *Eltra Corp. v. Ringer*, 579 F.2d 294, 298 (4th Cir. 1978). In 1988, the Copyright Office promulgated a regulation that barred protection for computer programs that generate typefonts, on the basis of merger. *See* 53 Fed. Reg. 38,110, 38,110-13 (Sept. 29, 1988). The Copyright Office concluded that the "design choices or any selection of data" involved in the computer program were limited by the shape of the letter, and that the computer program could not be protected without protecting the shape of the letter itself. *Id.* at 38,112-13. Several years later, Mr. Oman, as Register, reopened the matter, and

determined that "computer programs designed for generating typeface . . . may involve original computer instructions" beyond those dictated by "the unprotectible shape of the letters." 57 Fed. Reg. 6201, 6202 (Feb. 21, 1992). Accordingly, the Copyright Office clarified its regulation to make clear that the computer program itself was copyrightable, even though the typeface is not. *Id.*

In determining whether an idea can be expressed in a variety of ways, courts will not simply consider whether multiple modes of expression are hypothetically possible, but rather whether the alternatives are "feasible within real-world constraints." *Lexmark*, 387 F.3d at 536; *see also, e.g., Altai*, 982 F.2d at 708 (recognizing same). As the Federal Circuit recognized in this case, this analysis focuses on the choice of expression available to the author of a work at the time of creation, not on the choices available to a subsequent user of the work. *See, e.g.*, *Dun & Bradstreet Software Servs., Inc. v. Grace Consulting, Inc.*, 307 F.3d 197, 215 (3d Cir. 2002); *Apple Comput., Inc.*, 725 F.2d at 524; *see also* Pet. App. 151a. Indeed, if the choices of a subsequent user, such as Google, were determinative of merger, it is possible that works could be validly copyrighted only to *lose* copyright protection at a later date, which would undermine the incentives copyright creates. Moreover, this approach would be inconsistent with the terms of the Copyright Act itself, which provides that copyright protection extends from the time a work is created to the end of the statutory copyright term. 17 U.S.C. § 302. Consistent with the terms of the Copyright Act, the merger doctrine must focus on the expressive options available *to the author*.

The merger doctrine, therefore, does not deny protection to computer programs generally.

3. Under these principles, Google infringed Oracle's copyrights when it copied Oracle's computer program

As noted, the district court found, and Google does not dispute, that the declaring code and 37 API packages at issue are both creative and original, satisfying the minimum requirements of § 102(a). *See* Pet. App. 140a-41a, 214a. Google copied not only the lines of declaring code verbatim, but also replicated Oracle's elaborate organization of the code across the different packages, comprised of some "six hundred classes, with over six thousand methods." *See id.* at 129a (citation omitted). In other words, Google copied not only the words on the page, but the non-literal elements of the work as well. Even if parts of the declaring code itself were uncopyrightable as "functional" elements, the arrangement of the code in particular sequences is protectable. *See supra* at 12-15. As the Federal Circuit concluded, that should end the inquiry: Oracle's APIs are copyrightable, and Google infringed on that copyright. *See* Pet. App. 171a-73a.

a. The functional aspects of Oracle's program do not render it uncopyrightable

Google nevertheless claims that the declaring code is a functional "method of operation," excluded from copyright, because it "allows a Java developer to invoke (*i.e.*, operate) the separate pre-written computer code." Google Br. 19. But this can be said of computer codes generally—both declaring and implementing codes give instructions to the

computer, and both are necessary to get the computer to act. Pet. App. 126a. The Copyright Act's definition of "computer program" recognizes the functional aspects of computer software codes, and protects computer codes generally; it does not distinguish between types of code. *See supra* at 11; *see also* JOLT Article at 649. That is because the Copyright Act distinguishes between the expressive aspects of computer programs and the underlying computer process the code describes. *See* 17 U.S.C. § 102. It makes little sense to argue that copyright protection should be denied to the declaring codes based simply on their "functional" aspects, while simultaneously recognizing that the equally functional implementing code is protectable. *See* Google Br. 25.

The expressive aspects of the work, moreover, also include its structure, sequence, and organization—here, the creative organization of the code into particular methods, classes, and packages. Google appears to argue that because the declaring code has some functional aspects, the creative arrangement of that code cannot be copyrighted. Google Br. 19-21. That is incorrect. Consider a cookbook, for example, of 166 historic recipes, chosen and arranged from thousands of recipes that are in the public domain and are not themselves subject to copyright. *See* JOLT Article at 650 (explaining same). The recipes are in some sense "functional" because they explain the steps or methods necessary to prepare the dish. But if another author creates a follow-on cookbook that copies exactly the "creative selection and arrangement" of the first 37 recipes in the original work, the second comer has infringed the copyright in the first book, which the original author earned by his or her particular selection and arrangement of those

recipes. *Id.* For similar reasons, Google's argument that the SSO of the Java program is not protectable because the program is also "functional," must fail. *See* Google Br. 19-21. *Even if* the declaring code could not be copyrighted, the creative arrangement of that code would still be protected. And here, of course, the declaring code, unlike the individual recipes, *is* also protectable by copyright. *See supra* at 18-19.

The expressive elements of its program are all that Oracle seeks to protect in this case. The district court found that Oracle's arrangement of the declaring code was original and creative, and that Google could have written and organized the declaring code in a number of different ways *while still achieving the same functionality*. Pet. App. 267a. As the Federal Circuit noted, both Microsoft and Apple managed to create their own competing mobile operating systems "from scratch, using their own array of software packages," without infringing on Oracle's copyright. Pet. App. 149a n.5. Google itself wrote its own implementing code for these same computer processes, again without infringing on Oracle's copyright—yet it also chose to copy aspects of Oracle's work. This indicates that what Oracle seeks to protect is not an underlying computer function or process, but its particular, creative expression of that process—here, the declaring code and the SSO of the Java library. Under traditional copyright principles, this expression is protectable.

b. The merger doctrine does not apply to Oracle's program

For similar reasons, the merger doctrine does not apply. Google claims that the declarations at issue "can only be written one way to perform their function

responding to the calls already known to Java developers." Google Br. 19. The evidence in this case, however, establishes that Oracle had "unlimited options" in selecting and arranging the lines of code that Google copied, and that indeed, other programmers were able to create similar operating systems without infringing on Oracle's codes. *See* Pet. App. 149a-51a & n.5 (citation omitted).

Google does not appear to disagree with this premise. Indeed, the parties stipulated below that only 170 lines of the 11,500 lines of copied code were actually necessary to write in the Java language. Pet. App. 45a. What Google argues instead is that, because it wanted to use the Java SE library, including the names of different API packages that programmers were already familiar with, it had "no other choice" but to copy "the declarations from the Java SE libraries," because programmers would not otherwise be able to properly locate the desired method within the library. Google Br. 21, 31. But even if the declaring code is specific to or dictated by the structure of the Java library, the library's SSO is itself copyrightable, because, as the district court correctly found, Oracle could have arranged the different methods, classes, and API packages in myriad ways. *See* Pet. App. 266a-67a.

Google seems to be arguing that the functionality of the declaring code and its expression cannot be separated. And, to be sure, if the "function" is defined as "the ability to write software code using the precise phraseology that the original author created," then that will always be true. JOLT Article at 647 (explaining the same). But neither the Copyright Act nor the courts have ever endorsed "such a tautological approach to defining the 'function' a follow-on work is

entitled to achieve in its own right, using its own creative expression." *Id.* And adopting such an approach would seriously undermine that which copyright is intended to protect: the value in the original author's particular creative expression.

Instead, the Federal Circuit correctly recognized that Google could have written its own declaring code and organized its own API packages in its own way, and achieved the same result. That is a much more accurate vision of the "function" of a work for purposes of the copyrightability analysis: the function should be defined by what the work does, rather than defining the function so narrowly that it "necessarily encompasses the expression." *Id.* Indeed, some of the alternative modes of expression Google might have chosen could have been more efficient or effective than Oracle's original creation. This would have furthered the purpose of copyright, and in particular the purpose of protecting computer programs via copyright: to promote the creation and dissemination of more programs. *See* CONTU Rep. 10-11.

But Google chose not to do so, because it wanted to capitalize on the popularity of the Java program, and developers' familiarity with that program. *See* Google Br. 19, 31. Rather than risk creating a new program that developers would have to become accustomed to, Google chose to copy aspects of Oracle's program instead. But the popularity of Oracle's work, and Google's desire to take commercial advantage of that work, does not somehow render the work uncopyrightable after the fact. *See, e.g.*, *Franklin Comput.*, 714 F.2d at 1253 (noting that "a commercial and competitive objective . . . does not enter into the somewhat metaphysical issue of whether particular ideas and expressions have merged"). Indeed, such a

result would be anathema to the basic purposes underlying copyright.

c. "Interoperability" does not apply

Google next claims that, in copying Oracle's program, it simply wanted to make Android "compatible" or interoperable with computer programmer skills, such that programmers accustomed to the Java platform could easily use the Android platform. *See* Google Br. 39-41; Intellectual Property Scholars *Amici* Br. 27-31; *see also, e.g.*, Pet. App. 45a-46a & n.11. The "interoperability" doctrine permits copying of a work to the limited extent necessary to permit the secondary work to function with the first. *See, e.g.*, *Lexmark*, 387 F.3d at 536 (permitting limited copying of a computer program installed in Lexmark printer cartridges to enable the defendant to produce printer cartridges that would work with Lexmark printers); *Sega*, 977 F.2d at 1522 (permitting limited copying of a code so that Accolade could reverse engineer functional elements of Sega's gaming system and adapt its video games to run on the platform). But the interoperability claimed here goes far beyond the doctrine recognized by the courts.

The cases cited by Google and other amici involved compatibility issues aimed at making a machine work with another machine. *See, e.g.*, *Lexmark*, 387 F.3d at 529-30, 536; *Sega*, 977 F.2d at 1522. Here, Google specifically did *not* want the Android platform to be compatible or interoperable with Oracle's Java program. *See* Pet. App. 171a-73a. Indeed, this was why Google ultimately chose not to obtain a commercial license from Oracle for the use of the APIs—because Oracle required compatibility with its program as a condition of the license. *Id.* at 128a.

Instead, Google's copying of Oracle's APIs is intended to free-ride on Oracle's goodwill and customer base to develop a competing product.

Under settled principles, Google infringed Oracle's copyrights when it chose to copy Oracle's original, protectable work, even though it could have created another mode of expression that would have achieved the same result within the computer.

B. The Fair Use Doctrine Does Not Excuse The Copying At Issue Here

The Federal Circuit correctly concluded that the doctrine of fair use does not excuse Google's infringement. And here again, traditional principles of copyright law compel this conclusion.

1. The fair use doctrine does not protect works that merely seek to supersede the original

The purpose of copyright is "to create incentives for creative effort." *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 450 (1984). But because "all intellectual creative activity is in part derivative," Pierre N. Leval, *Toward a Fair Use Standard*, 103 Harv. L. Rev. 1105, 1109 (1990), courts have long recognized that *overbroad* copyright protection will stifle creativity, defeating the fundamental purpose of providing copyright protection in the first place. Indeed, certain kinds of creative works, such as critiques and parodies, require at least some use of copyrighted works. *See, e.g.*, *id.* at 1109 & n.21; William F. Patry, *Patry on Fair Use* § 3:55 (2019). The fair use doctrine was created to distinguish between "fair" uses of protected works that generate further creativity, and infringing

uses that merely seek to replicate or replace the original work. *See Folsom v. Marsh*, 9 F. Cas. 342, 344-45 (Cir. Ct. D. Mass. 1841).

Justice Story first described what we now know as the "fair use" analysis in *Folsom*, which arose after publishers of a twelve-volume work on George Washington's life sued publishers of a two-volume work that copied hundreds of letters from the original work. *Id.* at 345, 349. In considering whether the copying constituted infringement, Justice Story identified several factors courts should consider: (1) "the nature and objects of the selections made;" (2) "the quantity and value of the materials used;" and (3) "the degree in which the use may prejudice the sale, or diminish the profits, or supersede the objects, of the original work." *Id.* at 348.

Justice Story emphasized that the amount of material copied from the original work was less important than whether "the value of the original is sensibly diminished, or the labors of the original author are substantially to an injurious extent appropriated by another." *Id.* He also noted that "a considerable portion" of a work may be incorporated into another where the second work has "other and professed objects" from the original. *Id.* Where the two works have "a similar object," however, the author of the second work is not permitted "to save themselves trouble and expense, by availing themselves, for their own profit, of other men's works." *Id.* at 349 (citation omitted). Because that is what the defendants had done, the court found that defendants' copying had infringed plaintiffs' copyrights. *Id.*

Since *Folsom*, courts have further clarified the distinction between uses of a copyrighted work with

"other professed and obvious objects" than the original, and those that merely sought to "supersede" the original. *Id.* at 348. Thus, courts recognized that a work could be quoted or excerpted for purposes of criticism or parody, as long as the secondary use had "neither the intent nor the effect of fulfilling the demand for the original," and did not copy more of the original than was necessary. *See Berlin v. E.C. Publ'ns, Inc.*, 329 F.2d 541, 545 (2d Cir. 1964); *Hill v. Whalen & Martell, Inc.*, 220 F. 359, 360 (S.D.N.Y. 1914); *Bloom & Hamlin v. Nixon*, 125 F. 977, 978-79 (Cir. Ct. E.D. Pa. 1903). Similarly, newspapers and magazines could quote other original works for purposes of reporting or commentary, where the use of the copyrighted material had a different purpose from the original and was therefore unlikely to undermine its value. *See, e.g.*, *Karll v. Curtis Publ'g Co.*, 39 F. Supp. 836, 837-38 (E.D. Wis. 1941); *Broadway Music Corp. v. F-R Publ'g Corp.*, 31 F. Supp. 817, 818 (S.D.N.Y. 1940). By contrast, copying another news article for "the *same* evident purpose of attractively and effectively serving [the original words] to the reading public" does not qualify as fair use. *See Chicago Record-Herald Co. v. Tribune Ass'n*, 275 F. 797, 799 (7th Cir. 1921) (emphasis added).

In other words, courts have recognized that a use that transforms the original work, using it for purposes that differs from the original, is generally permissible, because such a use furthers the creative purpose of copyright itself. On the other hand, a use intended to merely substitute for the original, free-riding on the original author's work, constitutes infringement, because free-riding undermines the economic incentives for creation that copyright is intended to promote. As the Copyright Office

explained, fair use "means that a reasonable portion of a copyrighted work may be reproduced without permission when necessary for a legitimate purpose which is not competitive with the copyright owner's market for his work."[3]

In the 1976 Act, Congress acted on the Copyright Office's recommendation to codify this fair use defense. The 1976 Act enumerated the four factors governing the fair use inquiry:

> (1) the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes; (2) the nature of the copyrighted work; (3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and (4) the effect of the use upon the potential market for or value of the copyrighted work.

17 U.S.C. § 107. These factors must be examined with reference to copyright's underlying purpose. *Campbell v. Acuff-Rose Music, Inc.*, 510 U.S. 569, 578 (1994). Thus, the longstanding view that "supersed[ing]" uses are not fair prevails, because allowing others simply to "free-ride" on the creative works of others would hinder copyright's purpose. *See* Leval*, supra*, at 1116, 1125.

As a practical matter, the first and fourth factors are often controlling. Where the "purpose and character" of the use adds nothing new to the original work, and merely seeks to supersede the original,

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[3] H. Comm. on Judiciary, 87th Cong., Report of the Register of Copyrights on the General Revision of the U.S. Copyright Law 24 (Comm. Print 1961), https://www.copyright.gov/history/1961_registers_report.pdf.

courts will not find fair use. *See Campbell*, 510 U.S. at 578-79 (citation omitted); *Harper & Row Publishers, Inc. v. Nation Enters.*, 471 U.S. 539, 562 (1985). And, where the use is likely to cause harm to the market for the original work, there can be no fair use. *Campbell*, 510 U.S. at 590; *Harper & Row*, 471 U.S. at 566-67.

As explained below, Google's copying of Oracle's software flunks these settled standards.

2. Under settled principles, Google's copying of Oracle's computer program is not a fair use

Google's use of Oracle's computer program falters on the first and fourth factors. Taking the purpose and character of the use, the first factor, it is clear that Google copied the Java program for a purely commercial purpose, which weighs against a finding of fair use. *See Campbell*, 510 U.S. at 578-79. The Java platform is widely popular and widely used by software developers and device manufacturers. Yet unlike Google, these users all sought, received, and paid for, a license from Oracle—or else abided by the terms of Oracle's open-source license. Oracle Br. 11-12; Pet. App. 127a-28a. Google attempted to negotiate a license, but negotiations broke down because Google did not wish to comply with Oracle's requirement that the product incorporating the licensed software be compatible with the Java program. Pet. App. 128a-29a. So Google opted to write its own program for Android, which it was of course free to do. But rather than create a wholly original work, Google chose to copy aspects of Oracle's work to increase the appeal of Google's competing Android product—a purely commercial purpose.

According to Google, it copied the code, rather than create its own, "for the benefit of developers, who—familiar with the Java programming language—had certain expectations regarding the language's APIs." Opp'n to Oracle's R. 50(a) Mot. 15, *Copyrightability Decision* (No. 3:10-cv-3561-WHA), 2016 WL 9045806.

In other words, Google's use of the Java APIs is intended to supersede the original in the Android platform, because that is what developers expected to see. *See Campbell*, 510 U.S. at 578-79; *Harper & Row*, 471 U.S. at 562; *Folsom*, 9 F. Cas. at 348. In copying the Java APIs, Google attempted to capture and divert the software developer community that Oracle developed with the Java platform, by taking advantage of developers' familiarity with that platform. This sort of blatant commercial free-riding is the antithesis of fair use and cannot be reconciled with copyright's purpose: to promote creativity by preventing others from taking advantage of the original creator's work. As Justice Story explained in *Folsom*, "[n]one are entitled to save themselves trouble and expense, by availing themselves, for their own profit, of other men's works." 9 F. Cas. at 349 (citation omitted). Google should not be permitted to do so here.

Likewise, in examining the fourth factor, the record indicates that Google's appropriation of Oracle's work indisputably harmed the market for the Java program. Before the release of Android, Java was already used in smartphones, including Blackberry and Nokia; thus, Android "competed directly with Java SE in the market for mobile devices." Pet. App. 50a. Likewise, Amazon switched from using the Java platform to the Android platform in its Kindle device, before negotiating a "steep

discount" with Oracle for the use of Java in its newest device. *Id.* at 50a-51a. As the Federal Circuit explained, there is "substantial evidence that Android was used as a substitute for Java SE and had a direct market impact." *Id.* at 51a. Again, permitting Google to free-ride on Oracle's creative work, to the detriment of the original, is fundamentally incompatible with both the fair use doctrine in particular and the purposes of copyright generally.

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The Copyright Act of 1976, as amended in 1980, provides computer programs all of the protections afforded other copyrighted works. Despite the fears of the CONTU dissenters and some others, extending copyright to software has not caused the sky to fall. Quite the opposite. Copyright protection has spurred greater creativity, competition, and technological advancement, fueling an unprecedented period of intellectual growth and one of America's greatest economic sectors today—software development. While Congress is of course free to revisit the application of copyright to software if it believes changes to the current regime are warranted, there is no basis for this Court to assume that policymaking role here. Instead, this Court should give effect to Congress's intent, as embodied in the 1976 Act and its subsequent amendments, that traditional copyright principles apply to software just as these principles apply to other works. Applying those principles to the record in this case, the Federal Circuit properly concluded that Google's conceded copying of the APIs infringed Oracle's copyrights. While the technology at issue may be novel, the result that such free riding is not allowed is as old as copyright law itself.

CONCLUSION

The judgment of the court of appeals should be affirmed.

Respectfully submitted,

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