Appeal Nos. 2017-1118, -1202

United States Court of Appeals

for the

Federal Circuit

ORACLE AMERICA, INC.,

Plaintiff-Appellant,

– v. –

GOOGLE INC.,

Defendant-Cross Appellant.

ON APPEAL FROM THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF CALIFORNIA IN CASE NO. 3:10-CV-03561-WHA HONORABLE WILLIAM H. ALSUP

BRIEF OF *AMICI CURIAE* 42 INTELLECTUAL PROPERTY LAW PROFESSORS IN SUPPORT OF DEFENDANT-CROSS APPELLANT GOOGLE INC.

Jason M. Schultz
NYU School of Law
40 Washington Square South
New York, NY 10012
(212) 998-6100

Counsel of Record for Amici Curiae 42 Intellectual Property Law Professors

May 30, 2017

CERTIFICATE OF INTEREST

Pursuant to Federal Rule of Appellate Procedure 26.1 and Federal Circuit Rule 47.4, counsel for *amici curiae* 42 Intellectual Property Law Professors certifies the following:

1. The full name of every amicus curiae represented by me is:

   LISTED IN APPENDIX A.

2. The name of the real parties in interest represented by me is: N/A.

3. All parent corporations and any publicly held companies that own 10 percent or more of the stock of the party or amicus curiae represented by me are: NONE.

4. The names of all law firms and the partners or associates that appeared for the party or amicus curiae now represented by me in the trial court or are expected to appear in this Court (and who have not or will not enter an appearance in this case) are: NONE.

Dated: May 30, 2017

Respectfully submitted,

/s/ Jason M. Schultz

Jason M. Schultz
NYU School of Law
40 Washington Square South
New York, NY 10012
(212) 998-6100

Counsel of Record for Amici Curiae 42 Intellectual Property Law Professors

TABLE OF CONTENTS

Page

TABLE OF AUTHORITIES

Page(s)

CASES

STATUTES

OTHER AUTHORITIES

STATEMENT OF INTEREST[1]

Amici curiae are individuals, listed in Appendix A, who teach and write about intellectual property law at accredited law schools. *Amici* respectfully submit this brief to express our views and our concerns. We represent no institution, group, or association and have no personal interest or stake in the outcome of this case. Our sole interest in this case is with interpretations of traditional principles of copyright law that we, as instructors and commentators on intellectual property law, believe should be considered in reviewing the jury verdict of fair use. We criticize several of Oracle's legal arguments on the merits and urge this Court to affirm the District Court's ruling that Oracle is not entitled to a judgment that Google's use of elements of the Java API cannot be fair use. We believe the outcome of this case will have a significant impact on fair use law, software copyright law, and on the balances between copyright owners' legitimate interests in protecting their rights and the interests of second-comers in being able to build on earlier innovations that intellectual property laws aspire to achieve.

[1] This brief is filed pursuant to Fed. R. App. P. 29(a) with the consent of all parties. Pursuant to Fed. R. App. P. 29(c)(5), *amici* hereby state that none of the parties to this case nor their counsel authored this brief in whole or in part; no party or any party's counsel contributed money intended to fund preparing or submitting the brief; and no one else other than *amici* and their counsel contributed money that was intended to fund preparing or submitting this brief.

SUMMARY OF ARGUMENT

Oracle's attack on the jury's fair use verdict is based on at least four flawed assertions. The first is that Google's failure to license certain elements of the Java Application Program Interface (API) for its Android platform was evidence of bad faith as a matter of law. This assertion is plainly inconsistent with the Supreme Court's decision in *Campbell v. Acuff-Rose Music, Inc*., in which the Court not only expressed skepticism about whether subjective "faith"—good or bad—is relevant in fair use cases, but also explicitly stated that seeking, but not obtaining, a license to use another's copyrighted material is not evidence of bad faith.

Second, Oracle mistakenly asserts that courts may consider only evidence of subjective bad faith, and not evidence of good faith, in assessing fair use. However, numerous decisions have considered defendants' good faith in fair use cases. Evidence in the record supported a jury finding that Google acted in good faith. Google witnesses testified about a common industry belief that reimplementing APIs is permissible. Google could reasonably have relied on this belief, as well as on several appellate courts that strictly limited the scope of copyright protection for software interfaces. Google could also have relied on positions taken by the American Committee for Interoperable Systems (ACIS) in support of freedom to reimplement software interfaces. ACIS, of which both Sun Microsystems and Oracle were members, filed numerous briefs in support of the proposition that

APIs were not and should not be copyrightable expression. By delivering a verdict in favor of Google, the jury seems to have found Google's good faith arguments persuasive.

Third, Oracle insists that the jury could not, as a matter of law, have found Google's purpose in reusing elements of the Java API to be transformative. However, this Court previously ruled that there was a triable issue of fact on transformativeness. Moreover, binding Ninth Circuit precedent has treated similar reuses of software interfaces as transformative. Other fair use decisions lend support to Google's transformativeness argument. While Oracle and its amici may disagree with the jury's findings, the verdict was reasonable given the conflicting evidence in the record about transformativeness. Numerous fair use precedents have allowed reuse of copyrighted works, including computer code, to enable technological competition and innovation, including but not limited to, reverse engineering, emulation, interoperability, data-mining, image recognition, plagiarism detection, information location, and more. The jury's fair use verdict does not undermine Oracle's derivative work right, given that fair use is a limitation on all § 106 exclusive rights, including the right to prepare derivative works.

Finally, Oracle mischaracterizes the second fair use factor, which is concerned with the nature of the work at issue, not the degree of creativity required

to develop an API. Under binding Ninth Circuit precedents, computer programs are deemed utilitarian works. Such works enjoy a thin scope of copyright protection and are subject to a broad scope of fair use—no matter how "creative" they are. The jury's fair use verdict strongly suggests that the jurors were persuaded that the Java API elements Google used in Android were more functional than expressive.

ARGUMENT

I. Oracle's Bad and Good Faith Arguments Are Inconsistent with Supreme Court and Other Precedents.

Oracle's "most emphatic argument" in the District Court, and one of its most aggressive arguments on appeal, is that Google acted in bad faith, as a matter of law, by not taking a license for its use of portions of the Java API in Android. Appx30; Oracle Br. 28, 37-39. Oracle characterizes bad faith as "a one-way ratchet: Bad faith weighs against fair use, while a copyist's good faith cannot weigh in favor of fair use." Oracle Br. 28. These assertions are plainly wrong, as they conflict with the Supreme Court's decision in *Campbell v. Acuff-Rose Music, Inc.*, 510 U.S. 569 (1994).

A. Subjective Mental States Should Be Given Little if Any Weight in Fair Use Cases.

In *Campbell*, the Supreme Court expressed skepticism about whether good or bad faith should be given weight in fair use cases. *Id.* at 585 n.18 ("*Even if good faith were central to fair use*, 2 Live Crew's actions do not necessarily suggest that

they believed their version was not fair use . . .") (emphasis added). Perhaps the Court's caution explains why this Court, when remanding the *Oracle* case for trial on Google's fair use defense, did not highlight as a relevant consideration whether Google had acted in good or bad faith. *Oracle Am., Inc. v. Google Inc.*, 750 F.3d 1339, 1372-76 (Fed. Cir. 2014); Appx30.

Commentators have offered several reasons why mental states, such as good and bad faith, should generally be given relatively little, if any, weight in fair use cases. In his influential article on fair use, Judge Leval observed:

> Whether the secondary use is within the protection of the [fair use] doctrine depends on factors pertinent to the objectives of the copyright law and not on the morality or motives of either the secondary user or the copyright-owning plaintiff.

Hon. Pierre N. Leval, *Toward a Fair Use Standard*, 103 Harv. L. Rev. 1105, 1128 (1990).

Professor Dratler has offered statutory and economic policy rationales for limiting moral considerations in fair use cases:

> First, from the standpoint of faithfulness to statutory language, a user's course of dealing with the holder of copyright in the underlying work has little relation to the "purpose" of the use. Second, and more important, there is little reason to infuse the doctrine of fair use with notions of commercial ethics.
>
> Unlike the doctrine of trade secrecy, the doctrine of fair use has no substantial basis in commercial morality. Like copyright law generally, fair use has an economic purpose. The morality vel non of transactions between users and copyright holders has little to do with that purpose. Indeed, the very term "fair use" is a misnomer because

> the doctrine, as codified today, does not focus on notions of ethics and fairness, but on market impacts and the relative public benefits of use versus incentives for creation.

Jay Dratler, Jr., *Distilling the Witches' Brew of Fair Use in Copyright Law*, 43 U. Miami L. Rev. 233, 334 (1988) (footnotes omitted).

In cases such as *Oracle*, these statutory and economic considerations are especially pertinent because fair use has become an important part of competition and ongoing innovation policy. *See, e.g., Sega Enters. Ltd. v. Accolade, Inc.*, 977 F.2d 1510, 1524-27 (9th Cir. 1992). Oracle's effort to cast the case in good guy/bad guy terms diverts attention away from the underlying economic principles of copyright, which aim to provide a reasonable degree of protection for copyrightable expression, while leaving room for second-comers to build upon preexisting works.

While the Supreme Court did not altogether abjure consideration of good or bad faith in fair use cases, its cautionary statements in *Campbell* suggest that subjective mental states such as good/bad faith should generally be given little weight. Yet, insofar as good/bad faith has some bearing on whether a use is fair, Oracle's assertions about the role of bad and good faith in fair use analysis are decidedly erroneous.

B. Seeking, but Not Getting, a License Is Not Evidence of Bad Faith.

Oracle's argument that Google acted in bad faith by seeking, but not obtaining, a license to use the Java API cannot be squared with the Supreme Court's decision in *Campbell*. The Court expressly rejected the argument that 2 Live Crew's request for permission to use Roy Orbison's song "Oh, Pretty Woman" should weigh against its fair use defense: "2 Live Crew's actions do not necessarily suggest that they believed their version was not fair use; the offer may simply have been made in a good-faith effort to avoid this litigation. *If the use is otherwise fair, then no permission need be sought or granted*." *Campbell*, 510 U.S. at 585, n.18 (emphasis added). The Court cited approvingly to *Fisher v. Dees*, 794 F.2d 432, 437 (9th Cir. 1986), in which the Ninth Circuit observed that "to consider Dees blameworthy because he asked permission would penalize him for this modest show of consideration." 510 U.S. at 585, n.18.

Campbell and *Dees* are far from the only cases in which fair use defenses prevailed even though the parties had failed to agree on licensing terms.[2] Perhaps

[2] *See, e.g., Maxtone-Graham v. Burtchaell*, 803 F.2d 1253, 1264 (2d Cir. 1986) ("[defendant] should not be penalized for erring on the side of safety"); *Warren Publ'g Co. v. Spurlock*, 645 F. Supp. 2d 402, 422 (E.D. Pa. 2009); *see also Blanch v. Koons*, 467 F.3d 244, 256 (2d Cir. 2006) ("We are aware of no controlling authority to the effect that the failure to seek permission for copying, in itself, constitutes bad faith."); *Equals Three, LLC v. Jukin Media, Inc.*, 139 F. Supp. 3d 1094, 1106 (C.D. Cal. 2015); *Threshold Media Corp. v. Relativity Media, LLC*, 166 F. Supp. 3d 1011, 1029 n.13 (C.D. Cal. 2013).

most pertinent to the *Oracle* case is the Ninth Circuit's *Accolade* decision. Prior to engaging in the reverse-engineering activity that precipitated the lawsuit, Accolade approached Sega about taking a license to make videogames for the Genesis platform. Accolade decided against this license because it found unacceptable one of Sega's key licensing terms: a commitment to make games only for the Sega platform. *Accolade*, 977 F.2d at 1514. The failed negotiations did not undermine Accolade's fair use defense, which the Ninth Circuit found quite compelling. *Id.* at 1527-28.

Seeking, but not obtaining, a license may, moreover, be evidence of good faith. In *Bill Graham Archives v. Dorling Kindersley Ltd.*, 386 F. Supp. 2d 324 (S.D.N.Y. 2005), *aff'd*, 448 F.3d 605 (2d Cir. 2006), for instance, the publisher of a book on the cultural history of the Grateful Dead approached BGA about a license to reproduce certain posters that had advertised the band's performances. After the parties failed to reach agreement, the publisher used the images anyway. BGA sued for infringement. The District Court noted that the defendants had "informed plaintiff of their intentions to use their images and made an effort to license the images where there might be question as to whether a license was needed, [which] shows a good-faith effort by defendants." 386 F. Supp. 2d at 333; *see also Campbell*, 510 U.S. at 585, n.18 ("the offer [to license] may simply have been made in a good-faith effort to avoid this litigation").

C. Good Faith Can Weigh in Favor of Fair Use.

Dorling Kindersley is one of many cases to give favorable consideration to the defendant's good faith conduct.[3] *See, e.g.*, *Wright v. Warner Books, Inc.*, 953 F.2d 731, 737 (2d Cir. 1991) (defendant's conduct refuted plaintiff's bad faith claims); *Nunez v. Caribbean Int'l News Corp.*, 235 F.3d 18, 23 (1st Cir. 2000) (good faith weighed in defendant's favor). Within the Ninth Circuit, a court viewed Google's compliance with industry-standard protocols and conduct regarding its cached links to web pages as an indication of good faith. *Field v. Google Inc.*, 412 F. Supp. 2d 1106, 1122-23 (D. Nev. 2006).

Other cases in which the defendant's good faith has weighed in favor of fair use include: *Fuentes v. Mega Media Holdings, Inc.*, No. 09-22979-CIV, 2011 WL 2601356 at *11-13 (S.D. Fla. June 9, 2011); *Kane v. Comedy Partners*, No. 00 Civ. 158(GBD), 2003 WL 22383387 at *7 (S.D.N.Y. 2003); *Time, Inc. v. Bernard Geis Assocs.*, 293 F. Supp. 130, 146 (S.D.N.Y. 1968).[4] Oracle's assertion that the defendant's good faith can never weigh in favor of fair use is plainly mistaken.

---

[3] The Goldstein treatise notes that bad and good faith have been considered relevant in certain cases. *See* 2 Paul Goldstein, *Goldstein on Copyright* § 12.2.2, at 12:44.5 (3d ed. 2014 & Supp. 2017).

[4] Courts also have found a defendant's demonstrated belief that its use was fair can itself be an indication of good faith. *See, e.g.*, *Bouchat v. Baltimore Ravens Ltd. Partnership*, 737 F.3d 932, 942 (4th Cir. 2013); *Gulfstream Aerospace Corp. v. Camp Sys. Int'l*, Inc., 428 F. Supp. 2d 1369, 1378 n.5 (S.D. Ga. 2006).

II. Google Could Have Had a Good-Faith Belief That Its Reuse of Elements of the Java API Was Lawful.

Concerning the good/bad faith issues in *Oracle*, the District Court offered these observations. First, Oracle's insistence that bad faith should be part of the case opened up the opportunity for Google to offer evidence that it had acted in good faith. Appx31. Second, the evidence about bad/good faith was mixed, and whether a defendant acted in good or bad faith is a classic issue of fact for a jury to decide. Appx38-40. Third, the license about which Sun and Google had been negotiating was for full use of the Java technologies, including the implementing code, and Google could have reasonably believed that using only some of the Java declarations and classes was lawful. Appx46.

At least three additional reasons explain why Google could have had a good-faith belief that its use of the Java API elements was non-infringing.[5] First, Google could have relied on a common understanding in the software industry that interfaces were open for reuse. Second, Google could have relied on several appellate court decisions that rejected expansive copyright claims involving computer program APIs. Third, Google could have relied upon the public positions

[5] That a good-faith belief in the fairness of a use may weigh in favor of an alleged infringer is also supported in the Copyright Act, which directs courts to remit statutory damages "in any case" involving certain nonprofit actors who reasonably believed their public-benefiting uses were fair. *See* 17 U.S.C. § 504(c)(2).

that Sun Microsystems and Oracle, as members of ACIS, took against copyright protection for computer program APIs.

A. Google Was Not Alone in Thinking APIs Were Free to Reimplement.

Testimony in the fair use trial record, including by Sun's last CEO, supported Google's contention that there was a common understanding in the software industry that programmers were free to reimplement APIs in independently written code. As the District Court noted, Google's witnesses

> testified that they had understood that "re-implementing" an API library was a legitimate, recognized practice so long as all that was duplicated was the "declaring code" and so long as the duplicator supplied its own "implementing code," that is, the methods were "re-implemented." In this way, Java programmers using the Android API could call on functionalities with the same Java command statements needed to call the same functionalities in the Java API, thereby avoiding splintering of the ways that identical functionalities became invoked by Java programmers.

Appx31-32. The distinction between interfaces and implementations is long-standing in the computing field. *See, e.g.*, Alfred Z. Spector, *Software, Interface, and Implementation*, 30 Jurimetrics J. 79, 85-86 (1989).

Moreover, a large number of books have been published that set forth the Java API, in whole or in part, including the declarations and class structures. *See, e.g.*, Ian F. Darwin, *Java Cookbook: Solutions and Examples for Java Developers* (3d ed. 2014). These books generally aim to explain how to use the Java API in an

effective manner to develop new software programs. They often reproduce the whole or substantial parts of the Java API for commercial purposes and could serve as substitutes for the Java Special Edition (SE), which sets forth the Java API.

The District Court took note of these books in explaining its denial of Oracle's Rule 50 motion:

> Many thousands of pre-written methods have been written for Java, so many that thick books . . . are needed to explain them, organized by packages, classes, and methods. For each method, the book sets forth the precise declaring code but does not (and need not) set forth any implementing code. In other words, the book duplicates all of the method declarations (organized by packages and classes) together with plain English explanations. A Java user can study the book and learn the exact method name and inputs needed to invoke a method for use in his or her own program. . . . [A]ll that the Java programmer need master are the declarations. The implementing code remains a "black box" to the programmer.

Appx35-36. Given the testimony about the common understanding about freedom to reimplement APIs and commercial uses of the Java API in books, the jury could reasonably have decided that Google acted in good faith in reusing elements of the Java API in Android.

B. Numerous Precedents Have Rejected Copyright Claims in Software APIs.

When deciding to reuse some elements of the Java API in Android, Google could also have reasonably relied on several appellate court cases, including two

significant Ninth Circuit precedents, that rejected copyright claims involving computer program interfaces in six different contexts.

One context surfaced in *Accolade*. There, an unlicensed game developer sought to make its games run on a popular platform. Sega initially developed an interface to enable videogames to run on its Genesis platform. Once that interface existed, Sega and its licensees had to conform to the interface specifications when developing games for the Genesis. The only way that Accolade could make its games work on the Sega platform was by reimplementing the Sega interface details in its game software. The Ninth Circuit characterized the Sega interface as the "functional requirements for compatibility," which were "procedures" excluded from copyright protection under 17 U.S.C. § 102(b). *Accolade*, 977 F.2d at 1514-15, 1522.

A second context manifested in *Sony Computer Entertainment v. Connectix Corp.*, 203 F.3d 596 (9th Cir. 2000). Sony, maker of the popular PlayStation platform, sued the developer of software that emulated the platform's functionality. Connectix did so to attract owners of PlayStation games to play them using its software. To accomplish this objective, Connectix first studied the BIOS of the Sony PlayStation, then reimplemented the BIOS interface in independently written code. *Id.* at 598. In keeping with its *Accolade* decision, the Ninth Circuit

characterized the program interface as an unprotectable procedure under 17 U.S.C. § 102(b). *Id*. at 602-03.

A third context was in *Computer Associates International, Inc. v. Altai, Inc.*, 982 F.2d 693 (2d Cir. 1992). Both litigants were competitors in the market for scheduling programs designed to run on certain IBM operating system programs. CAI argued that Altai infringed by copying the structure, sequence, and organization of its list of services as well as parameter lists that set forth interfaces for interacting with the IBM programs. *Id*. at 714-15. The Second Circuit rejected CAI's argument, finding the list of services "was dictated by the nature of other programs with which it was designed to interact" and the parameter lists were not similar enough to infringe. *Id.* at 715. The IBM programs had constrained the design choices for both CAI and Altai in the formulation of parameter lists. *Id.*

A fourth context was *Bateman v. Mnemonics, Inc*., 79 F.3d 1532 (11th Cir. 1996). Mnemonics developed an application program to run on an operating system program it licensed from Bateman. When Bateman terminated the license, Mnemonics decided to develop an operating system so that it could continue to run its application program. Bateman sued for infringement. The District Court disallowed jury consideration of Mnemonics' evidence and argument that some literal copying of code was necessary so that its new operating system could execute its application program. *Id.* at 1539, 1543-46. The Eleventh Circuit

reversed, holding that Mnemonics should be able to make that showing and argument. *Id.*

A fifth context involved a claim of copyright in code that served as an interface between printers and printer cartridges in *Lexmark International, Inc. v. Static Control Components, Inc.*, 387 F.3d 522 (6th Cir. 2004). Lexmark embedded a program in its printer cartridges designed to exchange information with another program embedded in its printers. This exchange was necessary to authenticate the cartridge and enable it to work in Lexmark's printers. Static developed chips loaded with a copy of the Lexmark cartridge software and sold these chips to Lexmark's competitors who wanted their printer cartridges to work in Lexmark printers. Lexmark sued Static Control for copyright infringement. The Sixth Circuit rejected that claim because any expression in that program had merged with its functionality. *Id.* at 537-42.

A sixth context arose in *Lotus Development Corp. v. Borland International, Inc.*, 49 F.3d 807 (1st Cir. 1995). Borland literally copied the user interface command hierarchy of Lotus's popular 1-2-3 spreadsheet program (that is, the selection and arrangement of specific commands for invoking specific functions) for the emulation mode of its competing spreadsheet program. Borland did so to enable prospective customers who had created macro programs for commonly executed sequences of functions in 1-2-3 to run those macros in the Borland

program. The First Circuit reversed a District Court ruling that copying the command hierarchy was infringement. *Id.* at 819. To enable macro compatibility, the commands had to be exactly the same and exactly in the same sequence. *Id.* at 818. The First Circuit ruled that the command hierarchy was an uncopyrightable method of operation under 17 U.S.C. § 102(b). *Borland*, 49 F.3d at 815-19.

The *Borland* decision also recognized that third party investments in learning a particular command structure should be a factor cutting against a claim of software copyright infringement. *Id.* at 817-18. As Judge Boudin noted in his concurrence:

> [I]t is hard to see why customers who have learned the Lotus menu and devised macros for it should remain captives of Lotus because of an investment in learning made by the users and not by Lotus. Lotus has already reaped a substantial reward for being first; assuming that the Borland program is now better, good reasons exist for freeing it to attract old Lotus customers: to enable the old customers to take advantage of a new advance, and to reward Borland in turn for making a better product. If Borland has not made a better product, then customers will remain with Lotus anyway.

Id. at 821 (Boudin, J., concurring).

In Oracle's last appeal, this Court regarded these decisions as distinguishable because in each, the defendant's reuse of the plaintiff's interface was necessary to enable the second comer software to achieve interoperability with other software. *Oracle,* 750 F.3d at 1368-72. While we recognize that this Court has decided that the Java API elements Google used in Android were copyrightable, the point here

is that Google could reasonably have relied upon those decisions as support for its position that it could lawfully implement elements of the Java API.

C. As Members of ACIS, Sun and Oracle Have Supported the Uncopyrightability of APIs.

ACIS was formed to promote balanced intellectual property rules for computer software. Among the stated principles to realize this goal was a commitment to the principle that software APIs should not be protected by copyright law, and independent implementations of APIs should not infringe copyright. The ACIS Statement of Principles included this norm: "The rules or specifications according to which data must be organized in order to communicate with another program or computer, i.e., interfaces and access protocols, are not protectable expression under copyright law."[6] Sun was a founding member of ACIS, and Oracle joined ACIS in 1992.[7]

ACIS filed numerous *amicus curiae* briefs supporting freedom to reimplement program interfaces. Sun's Deputy General Counsel, Peter M.C. Choy,

---

[6] *See* American Committee for Interoperable Systems (ACIS), Statement of Principles, appended to Letter from Peter M.C. Choy on behalf of ACIS to Barry E. Carter (Nov. 5, 1992), *available at* https://www.ccianet.org/wp-content/uploads/2014/10/ACIS-Letter-to-Clinton-Admin-1992.pdf.

[7] Brief Amicus Curiae of American Committee for Interoperable Systems at iii, *Eng'g Dynamics, Inc. v. Structural Software, Inc.*, 46 F.3d 408 (5th Cir. 1995) (No. 92-3444) (listing ACIS members).

was a lead lawyer on numerous *amicus curiae* briefs on behalf of ACIS in major software copyright cases.[8]

Consider this excerpt from the ACIS brief to the Supreme Court in support of Borland's argument in the *Borland* case:

> Unlike traditional literary works such as novels and plays that stand alone and do not need to interact with any other work, computer programs never function alone; they function only by interacting with the computer environment in which their developers place them. This environment is absolutely unforgiving. Unless the computer program conforms to the precise rules for interacting with the other elements of the system, no interaction between the program and the system is possible. As a consequence, no matter how much better or cheaper the new program is, it will not enjoy a single sale if it cannot interoperate in its intended environment. If the developer of one part of the environment can use copyright law to prevent other developers from writing programs that conform to the system of rules governing interaction within the environment -- interface specifications, in computer parlance -- the first developer could gain a patent-like monopoly over the system without ever subjecting it to the rigorous scrutiny of a patent examination.

Brief Amici Curiae of American Committee for Interoperable Systems and Computer & Communications Industry Ass'n in Support of Respondent, *Lotus Dev. Corp. v. Borland Int'l, Inc.*, 516 U.S. 233 (1996) (No. 94-2003), 1995 WL 728487 at *4-5. The ACIS brief echoes arguments that Google has made in the *Oracle* case. Google could have reasonably relied in good faith on the consistent Sun- and Oracle-endorsed ACIS position on freedom to reimplement APIs.

[8] These briefs can be found at http://www.ccianet.org/interop/.

III. Oracle Misconstrues the Transformativeness Issue.

Whether a second comer's use of a first author's work is "transformative" has become an important consideration in fair use cases in the aftermath of the *Campbell* decision. *Campbell*, 510 U.S. at 579 (transformative uses favor fair use). Oracle mistakenly contends that Google's use of the Java declarations and classes cannot be transformative as a matter of law because Google reused these elements of the Java API for the same functional purpose as the original. Oracle Br. 29-37. Oracle ignores that this Court remanded this case for trial on Google's fair use defense because of a triable issue of fact about whether Google's use of the Java declarations and classes was transformative. *Oracle*, 750 F.3d at 1374-77. The jury's verdict suggests that it found persuasive Google's arguments on the transformativeness issue. This verdict is consistent with Ninth Circuit software copyright caselaw, as well as with other technology-intensive fair use rulings. This verdict does not undermine Oracle's derivative work rights.

A. Development of Software Reimplementing an API in Independently Written Code Has Been Held to Be Transformative for Fair Use Purposes.

Connectix is a Ninth Circuit precedent recognizing that reuse of a software API for the same functional purpose could be transformative. *Connectix*, 203 F.3d at 601-02. Connectix had to reverse engineer the PlayStation's BIOS to discover and then extract information about the interface procedures by which the Sony

software functioned. Connectix then reimplemented the very same functionality in its "PlayStation emulator" software product. *Id.*

Even though Connectix's software replicated many of the same computing functions as the PlayStation firmware, the Court held Connectix's use of the PlayStation firmware was transformative for at least two reasons. First, Connectix's emulator software enabled consumers to use PlayStation games in a new environment (i.e., on personal computers). *Id.* at 606-07. Second, the Court considered the emulator software "a wholly new product, notwithstanding the similarity of uses and functions" between the PlayStation gaming console and the emulator program, because Connectix had created its own code for implementing the PlayStation firmware's functions in the emulator software. *Id.*

Google's use of the Java declarations and classes is similar in key respects to Connectix's use of Sony's PlayStation firmware. Both Google and Connectix reimplemented the functionalities of another firm's software in their own software products. Importantly for purposes of the transformative use inquiry, both Connectix and Google reimplemented those functionalities in new computing environments and wrote their own software code for carrying out those functionalities.

Accolade is an additional Ninth Circuit fair use decision on reuse of software APIs. The Ninth Circuit accepted that Accolade's reimplementation of the Sega

Genesis gaming console's interface procedures in its own game products was lawful. *Accolade*, 977 F.2d at 1527. As in *Connectix*, Accolade reimplemented the Sega interface procedures in its own game software so that the games would function properly on the Genesis console. *Id.* at 1514-17. The Ninth Circuit did not explicitly address the transformativeness issue in *Accolade* because the Supreme Court had yet to endorse that term. But the overall fair use holding supports the proposition that reuses of software interfaces to perform the same basic computing functions can pass fair use muster.

Given the Ninth Circuit precedent holding that reuse of software API was transformative even when the defendant's software was competitive with the plaintiff's work, and this Court's remand for trial on the fair use defense, the jury could reasonably have found that Google's reimplementation of elements of the Java API was transformative.

B. Other Technology-Intensive Fair Use Rulings Have Affirmed Transformativeness Even When Whole Works Have Been Copied without Alteration.

Many other fair use precedents involving technological transformativeness support the reasonableness of a jury conclusion that Google's use of elements of the Java API was transformative. In general, these cases found reuses of entire copyrighted works with little or no alteration were transformatively fair when the use involved an innovative technological purpose.

Google's system for caching and displaying cache contents of websites, for instance, was held to be transformative in *Field*, 412 F. Supp. 2d at 1118-19 because it enabled archiving, web page comparisons, and comprehension of search query results. In *Perfect 10, Inc. v. Amazon.com, Inc.*, 508 F.3d 1146, 1165-66 (9th Cir. 2007), Google's use of copyrighted images to serve up thumbnail images in response to search queries was held to be highly transformative—despite Google using scaled-down images in their entirety—in large part because the use enabled an innovative technological purpose with significant public benefit. *See also Kelly v. Arriba Soft Corp.*, 336 F.3d 811, 818-19 (9th Cir. 2003) (coming to similar conclusions).

The Second Circuit similarly upheld as highly transformative the copying of millions of copyrighted books to create a searchable digital repository in *Authors Guild, Inc. v. HathiTrust*, 755 F.3d 87, 97 (2d Cir. 2014). This use was transformative because it enabled new and innovative technological uses of the works. *See also Authors Guild v. Google, Inc.*, 804 F.3d 202, 216-18 (2d Cir. 2015) (transformative to digitize books to index their contents and serve up snippets of text in response to search queries).

Data mining was another new technological use enabled by software technologies held to be transformatively fair in *A.V. ex rel. Vanderhye v. iParadigms, LLC*, 562 F.3d 630, 638-40 (4th Cir. 2009). The Fourth Circuit held

that iParadigms' use of entire, unaltered copies of copyrighted works to detect plagiarism was transformative, in part because the use involved new technological purposes that provided significant public benefits.

Because the record contains significant evidence that Google's use of portions of the Java API in Android served innovative technological purposes, the jury was clearly within reason to conclude that Google's use of the Java API was transformative.

C. The Fair Use Verdict Suggests the Jury Found the Amount Taken Was Reasonable in Light of a Transformative Purpose.

In keeping with the Supreme Court's directives in *Campbell*, the first fair use factor's transformativeness inquiry is closely linked with the third factor's concern with the amount and substantiality of the taking. If the amount taken was reasonable in light of a transformative purpose, that use is more likely to be fair. *See Campbell*, 510 U.S. at 586-87 (recognizing "that the extent of permissible copying varies with the purpose and character of the use"); *HathiTrust*, 755 F.3d at 96 ("we assess . . . whether the amount copied is reasonable in relation to the purported justifications for the use under the first factor").

The jury's verdict suggests it viewed Google's use of the Java API declarations as transformative and the amount taken as reasonable in light of this transformative purpose. The jury could have found that Google used limited

portions of the Java API as part of a highly innovative mobile device platform. Appx36-38, Appx41-43. In building this platform, Google not only wrote its own implementing code for the portions of the Java API that it used, but also created many new declarations to enable a vast array of additional, innovative smartphone functionalities. Appx42. Furthermore, the portions of the Java API that Google reimplemented may have helped preserve consistency of use within the larger Java developer community. Appx37-38. Given this, the jury could have reasonably concluded that Google's use of limited portions of the Java API was reasonable to achieve a transformative purpose.

Because the jury could have reasonably found Google's use of limited portions of the Java API to be reasonable in light of a transformative purpose, its verdict does not conflict with nor undermine Oracle's derivative work rights in the Java API. Fair use limits all of the § 106 exclusive rights. 17 U.S.C. § 107.

IV. Oracle Is Mistaken About the Nature-of-the-Work Factor.

Oracle contends that the Java API declarations and classes at issue are highly creative and that the nature-of-the-work factor must disfavor Google's fair use defense as a matter of law. Oracle Br. 39-43. This argument is a mistaken attempt to deflect attention away from the obvious fact that the work at issue in the *Oracle* case is software. Under controlling Ninth Circuit precedents, functional writings, such as software, while protectable by copyright, enjoy a thinner scope of

protection and a broader scope of fair use than novels and other highly expressive works, such as music, dramas, and paintings. The jury heard evidence that the declarations and classes of the Java API were functional. Appx38. By ruling in favor of Google's fair use defense, the jury could have decided that the declarations and classes were more functional than expressive.

A. Software Is Copyrightable, but Enjoys a Thin Scope of Protection Because of Its Functionality.

The functionality of software as a limiting principle on copyright scope has been well-recognized in Ninth Circuit caselaw. The leading case is *Apple Computer, Inc. v. Microsoft Corp.*, 35 F.3d 1435 (9th Cir. 1994), in which the functionality of various features of a graphical user interface (GUI) narrowed the scope of copyright in Apple's operating system (OS). The Ninth Circuit agreed with the District Court that because of this functionality, the GUI components of the Apple OS were "entitled only to limited protection and should be compared for virtual identity follow[ing] from its analytic dissection" of the specific elements for which Apple was seeking protection. *Id.* at 1446; *see also id*. at 1438-39. The Ninth Circuit approvingly reviewed the District Court's application of several limiting principles of copyright, including functionality, standardization, scenes a faire, and merger, to the Apple GUI on a feature-by-feature basis. *Id.* at 1444-47.

The Ninth Circuit rejected Apple's contention that its GUI was highly creative and entitled to broad protection for its "look and feel." *Id.* at 1439. The court noted that "unlike purely artistic works such as novels and plays, [GUIs] generated by computer programs are partly artistic and partly functional." *Id.* at 1444. To the extent that the GUI features were functional or constrained by external factors, those elements must remain outside of copyright's boundaries. *Id.* at 1443-46. The court concluded that the District Court had properly taken into account "the functional aspects of [GUIs] and the analogous range of protection available for compilations." *Id.* at 1442 n.10.

The Ninth Circuit in *Apple* cited approvingly, *id.* at 1445, to *Altai*, the Second Circuit's major software copyright decision. Like the Ninth Circuit, the *Altai* court recognized that "the essentially utilitarian nature of a computer program" complicates the task of distinguishing its protectable from unprotectable elements. *Altai*, 982 F.2d at 704. It directed courts to filter out unprotectable functional elements, as well as ideas and standard techniques, before proceeding to the comparison stage of infringement analysis. *Id.* at 706-08. The court recognized that this would narrow the scope of copyright protection, but "that result flows from applying, in accordance with Congressional intent, long-standing principles of copyright law." *Id.* at 712.

Like the Ninth Circuit, the Second Circuit regarded computer programs as very different in nature from aesthetic works. The functional character of programs means that they "hover" near "the elusive boundary line described in § 102(b)." *Id.* at 704. Owing to the hybrid nature of software—as both a "literary expression" and a "highly functional, utilitarian component in the larger process of computing"—copyright provides only a "weak barrier" of protection for programmers. *Id.* at 712. Although CAI and its amici urged the court to construe the scope of software copyrights broadly, the Second Circuit thought this would have "a corrosive effect on certain fundamental tenets of copyright doctrine." *Id.* To get exclusive rights in the more functional elements of software, the Second Circuit thought it more appropriate for their developers to seek a patent. *Id.*[9]

B. The Nature-of-the-Work Factor Generally Favors Fair Use in Software Cases.

The functionality of software and of API procedures weighed in favor of the fair use defenses in the *Connectix* and *Accolade* cases. *Connectix*, 203 F.3d at 605; *Accolade*, 977 F.2d at 1526.[10] This Court's previous *Oracle* decision

[9] That software API designs can be functional is evident from the fact that some have been patented. *See Oracle Am., Inc. v. Google Inc.*, 872 F. Supp. 2d 974, 996 (N.D. Cal. 2012).

[10] The word "functional" appears almost 60 times in the *Accolade* decision, and in each context, the term is viewed as a limit on the scope of copyright (as well as trademark) protection.

acknowledged that Ninth Circuit decisions had taken the functionality of software into account in those fair use cases. *Oracle,* 750 F.3d at 1375-76

In *Connectix*, the Ninth Circuit observed that "Sony's BIOS lies at a distance from the core [of copyright] because it contains unprotected aspects that cannot be examined without copying." *Connectix*, 203 F.3d at 603. The court quoted approvingly to its earlier *Accolade* decision that accorded software a "lower degree of protection than more traditional literary works." *Id.* (quoting *Accolade*, 977 F.2d at 1526). Fair use was an appropriate way to "preserve[] public access to the ideas and functional elements embodied in copyrighted computer software." *Connectix*, 203 F.3d at 603. The court regarded the nature-of-the-work factor to "strongly favor[]" Connectix's fair use defense. *Id.* at 605.

In *Accolade,* as in *Connectix*, the Ninth Circuit regarded the nature-of-the-work factor to be "important to the resolution of cases such as the one before us," especially given the "ultimate use to which [the defendant] put the functional information" it derived from the plaintiff's programs in developing its own program. *Accolade*, 977 F.2d at 1522. The Ninth Circuit observed:

> The second statutory [fair use] factor . . . reflects the fact that not all copyrighted works are entitled to the same level of protection. . . . Works of fiction receive greater protection than works that have strong factual elements, such as historical or biographical works, or works that have strong functional elements, such as accounting textbooks.

Id. at 1524 (citations omitted). Copyright protection "does not extend to the ideas underlying a work or to the functional or factual aspects of the work," *id.*, which is why "[u]nder the Copyright Act, if a work is largely functional, it receives only weak protection." *Id.* at 1527. This result, said the court, was "neither unfair nor unfortunate. It is the means by which copyright advances the progress of science and art." *Id*. (quoting *Feist Publ'ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 350 (1991)).[11]

The functional nature of software has favored fair use in the past because of the desirability of enabling second-comers to build on the functional elements of existing programs in creating new works of authorship. The jury's verdict strongly suggests that it regarded the nature-of-the-work factor as weighing in favor of fair use. This Court should not disturb that finding.

CONCLUSION

Oracle has supplied this Court with erroneous arguments regarding the role of subjective mental states, transformativeness, and fair use's nature-of-the-work factor. We urge this Court to defer to the jury's verdict in favor of Google, since the jury reasonably could have found that Google acted in good faith in reusing highly functional portions of the Java API in pursuit of a transformative purpose.

[11] *See also Bikram's Yoga College of India, L.P. v. Evolation Yoga, LLC*, 803 F.3d 1032, 1037-41 (9th Cir. 2015) (finding yoga sequence unprotectable as a functional work under § 102(b) regardless of its aesthetic considerations).

Dated: May 30, 2017

Respectfully submitted,

/s/ Jason M. Schultz

Jason M. Schultz
NYU School of Law
40 Washington Square South
New York, NY 10012
(212) 998-6100

Counsel of Record for Amici Curiae 42 Intellectual Property Law Professors

APPENDIX A: List of Signatories

(Institutions are listed for identification purposes only)

Timothy K. Armstrong
University of Cincinnati College of Law

Clark D. Asay
Brigham Young University Law School

Shyamkrishna Balganesh
University of Pennsylvania Law School

Ann Bartow
University of New Hampshire

Oren Bracha
University of Texas at Austin School of Law

Annemarie Bridy
University of Idaho College of Law

Dan L. Burk
University of California, Irvine, School of Law

Michael A. Carrier
Rutgers Law School

Michael W. Carroll
American University, Washington College of Law

Andrew Chin
University of North Carolina School of Law

Julie E. Cohen
Georgetown University Law Center

Kevin Collins
Washington University School of Law

Rebecca Curtin
Suffolk University Law School

Ben Depoorter
University of California, Hastings College of the Law

Roger Allan Ford
University of New Hampshire School of Law

Brian L. Frye
University of Kentucky College of Law

Jim Gibson
University of Richmond School of Law

Eric Goldman
Santa Clara University School of Law

James Grimmelmann
Cornell Tech and Cornell Law School

Peter Jaszi
American University, Washington College of Law (Emeritus)

Yvette Joy Liebesman
Saint Louis University School of Law

Jessica Litman
University of Michigan Law School & School of Information

Brian J. Love
Santa Clara University School of Law

Michael J. Madison
University of Pittsburgh School of Law

Mark P. McKenna
Notre Dame Law School

Joseph Scott Miller
University of Georgia School of Law

Deirdre K. Mulligan
University of California, Berkeley, School of Information & School of Law

Tyler T. Ochoa
Santa Clara University School of Law

Aaron Perzanowski
Case Western Reserve University School of Law

Victoria F. Phillips
American University Washington College of Law

Arti Rai
Duke University School of Law

Jerome H. Reichman
Duke University School of Law

Michael Rustad
Suffolk University Law School

Matthew Sag
Loyola University Chicago School of Law

Pamela Samuelson
University of California, Berkeley, School of Law

Jessica Silbey
Northeastern University School of Law

Joshua D. Sarnoff
DePaul University College of Law

Lea Shaver
Indiana University McKinney School of Law

Christopher Jon Sprigman
New York University School of Law

Katherine J. Strandburg
New York University School of Law

Rebecca Tushnet
Georgetown University Law Center

Jennifer M. Urban
University of California, Berkeley, School of Law

UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

CERTIFICATE OF SERVICE

I certify that I served a copy on counsel of record on May 30, 2017 by:

- ☐ U.S. Mail
- ☐ Fax
- ☐ Hand
- ☒ Electronic Means (by E-mail or CM/ECF)

Jason M. Schultz
Name of Counsel

/s/ Jason M. Schultz
Signature of Counsel

Law Firm	NYU School of Law
Address	40 Washington Square South
City, State, Zip	New York, NY 10012
Telephone Number	(212)998-6100
Fax Number	
E-Mail Address	

NOTE: For attorneys filing documents electronically, the name of the filer under whose log-in and password a document is submitted must be preceded by an "/s/" and typed in the space where the signature would otherwise appear. Graphic and other electronic signatures are discouraged.

Reset Fields

CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME LIMITATION, TYPEFACE REQUIREMENTS AND TYPE STYLE REQUIREMENTS

1. This brief complies with the type-volume limitation of Federal Rule of Appellate Procedure 32(a)(7)(B) or Federal Rule of Appellate Procedure 28.1(e)

__X__ The brief contains 7000 words, excluding the parts of the brief exempted by Federal Rule of Appellate Procedure 32(a)(7)(B)(iii),or

____ The brief uses a monospaced typeface and contains _____ lines of text, excluding the parts of the brief exempted by Federal Rule of Appellate Procedure 32(a)(7)(B)(iii).

2. This brief complies with the typeface requirements of Federal Rule of Appellate Procedure 32(a)(5) or Federal Rule of Appellate Procedure 28.1(e) and the type style requirements of Federal Rule of Appellate Procedure 32(a)(6)

__X__ The brief has been prepared in a proportionally spaced typeface using Microsoft Word in a 14 point Times New Roman font or

____ The brief has been prepared in a monospaced typeface using ___ _____in a ___ characters per inch_____ font.

May 30, 2017

/s/ Jason M. Schultz
Jason M. Schultz
NYU School of Law
40 Washington Square South
New York, NY 10012
(212) 998-6100

Counsel of Record for Amici Curiae 42 Intellectual Property Law Professors