THE FAIR USE HOLDING IN GOOGLE V. ORACLE: NOW FOR SOFTWARE, THE FAIR USE TAIL WAGS THE COPYRIGHT DOG

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ABSTRACT

In the Copyright Act of 1976, Congress unequivocally considered computer software to be a work of authorship. As a work of authorship, computer programs were to receive the same copyright protection as other literary works. Unfortunately, the Supreme Court in Google v. Oracle disagreed with this treatment. Being unable to declare that software lacks Feist-type creativity, the Court turned to the fair use defense. Using a fair use analysis that is strikingly different than had been used for any other copyrighted work, the Court effectively attempted to end copyright protection for computer programs. Recognizing the deficiencies in the opinion and in line with a central concept of fair use law that it is always fact specific, future courts should use the holding in Google v. Oracle only where smartphone operating systems are being developed. In all other cases, fair use for computer programs should be evaluated as it is for any other work of authorship.

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I.   INTRODUCTION

In recent scholarship, the research team led by the author addressed the factual appropriateness of copyright protection of computer programs.[1]   The scientific, peer-reviewed study established that computer programmers exercise expressive creativity in a similar way to the creativity underlying other written works.[2]   This places software protection within the Copyright Clause,[3] because both *Feist Publications, Inc. v. Rural Tel. Serv. Co.*'s general "modicum of creativity" requirement is met and the limitation imposed by the idea-expression dichotomy is not triggered.[4]

Of course, as Justice Thomas points out in his dissent in *Google v. Oracle*,[5] software copyright protection can be eliminated without a direct ruling by broadly interpreting the fair use defense as was done by the *Google* majority.[6]   If broadly applied, this will have defeated Congress' intent that

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[1] *See generally* Ralph D. Clifford et al*., Answering Question One in Google v. Oracle; The Creativity of Computer Programmers*, 70 J. COPYRIGHT SOC'Y 127 (2023); Trina C. Kershaw et al., *An Initial Examination of Computer Programs as Creative Works*, PSYCH. OF AESTHETICS, CREATIVITY, AND THE ARTS (Jan. 27, 2022), http://dx.doi.org/10.1037/aca0000457 [https://perma.cc/4TQ8-9BGX] (presenting a scientific study establishing computer programmer creativity).

[2] Kershaw*, supra* note 1, at 7–8.

[3] U.S. CONST. art. I, § 8, cl. 8.

[4] *See* Clifford, *supra* note 1; *see generally* 17 U.S.C. § 102(b) (excluding ideas from copyright protection); Feist Publications, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 346–47, 362 (1991) (denying copyright protection for a work that lacked a "modicum of creativity").

[5] Google LLC v. Oracle America, Inc., 141 S. Ct. 1183, 1211 (2021) (Thomas, J., dissenting).

[6] *See Id.* 1190, 1197-99, 1200-09

copyright protects software programs;[7] indeed, adopting a broad fair use defense in software cases, as the U.S. Supreme Court suggested in *Google*, may impose "[a fair use] cost . . . [that is] too high . . . run[ning] the risk of eliminating the economic incentive for the creation of original works that is at the core of copyright and—by driving creators out of the market—killing the proverbial goose that laid the golden egg."[8] Unfortunately, under *Google v. Oracle*, creating new computer programming languages—and possibly all software—is at risk of being without protection. [9] In other words, despite Congress's contrary intent, the high Court may have roasted the software goose.

The next section discusses the implementation of the fair use defense in cases that do not involve software. Then, following a presentation about the nature of computer software, particularly computer languages such as Java, the Court's abuse of the fair use defense in *Google* is discussed, concluding with the suggestion that a narrow precedential use of *Google* is appropriate.

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[7] H.R. Rep. No. 94-1476 at 116 (1976), *as reprinted in* 1976 U.S.C.C.A.N. 5659, 5731 ("With respect to the copyrightability of computer programs, the ownership of copyrights in them, the term of protection, and the formal requirements of the remainder of the bill, the [Copyright Act of 1976] would apply." (emphasis added)). *See* 17 U.S.C. § 102(a) (giving a list of "include[d]" examples of works that are copyrighted) as controlled by § 101 (defining "including" as "illustrative and not limitative."). Many courts (including the Supreme Court, as this article argues) have undertaken the role of establishing basic copyright policy without regards to how Congress has done so. *See, e.g.*, Cambridge Univ. Press v. Patton, 769 F.3d 1232, 1238 (11th Cir. 2014) ("If copyright's utilitarian goal is to be met, *we* must be careful not to place overbroad restrictions on the use of copyrighted works, because to do so would prevent would-be authors from effectively building on the ideas of others.") (emphasis added). It is not the court's responsibility to decide what "restrictions on the use of copyrighted works" are—it is Congress's, and it has done so in Title 17 of the U.S. Code.

[8] *Cambridge Univ. Press*, 769 F.3d at 1257–58.

[9] *See* discussion *infra* Section II-III.

II.   THE FAIR USE DOCTRINE DEVELOPED BY THE SUPREME COURT FOR NON-COMPUTER PROGRAMS–A POTENTIALLY OMNIPOTENT TAIL FOR THE COPYRIGHT DOG

The fair use defense has been recognized historically with all forms of protectable expression.[10]   Before the passage of the Copyright Act of 1976, the fair use defense was a well-known, judicially-created, equitable defense to all copyright suits.[11]   Congress continued this global limitation when it added an expression of the defense into the statute under section 107.[12]   Congress did not intend to change the fair use doctrine as it existed in 1976; instead, Congress only "intended to restate the present judicial doctrine of fair use, not to change, narrow, or enlarge it in any way."[13]   Similarly, Congress's statement of the fair use defense in section 107 did not intend "to freeze the doctrine in the statute," preferring instead to allow it to develop as needed by future circumstances.[14]   In fact, the fair use section was drafted carefully to achieve this goal.   The four statutory examinations specified in the section are introduced with the

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[10] *See* H.R. REP. NO. 94-1476, at 65 (1976), *as reprinted in* 1976 U.S.C.C.A.N. 5659, 5678–79; Rosemont Enterprises, Inc. v. Random House, Inc., 366 F.2d 303, 306–07 (2d Cir. 1966); Assoc. Music Publishers v. Debs Mem'l Radio Fund, 141 F.2d 852, 855 (2d Cir. 1944); Lawrence v. Dana, 15 F. Cas. 26, 44 (C.C.D. Mass. 1869); Folsom v. Marsh, 9 F. Cas. 342, 348 (C.C.D. Mass. 1841).

[11] *See* H.R. REP. NO. 94-1476, at 65 (1976), *as reprinted in* 1976 U.S.C.C.A.N. 5659, 5678–79; *Rosemont Enterprises, Inc.*, 366 F.2d at 306–07; *Assoc. Music Publishers*, 141 F.2d at 855; *Lawrence*, 15 F. Cas. 44; *Folsom*, 9 F. Cas. 348.

[12] 17 U.S.C. § 106 ("Subject to section . . . 107 . . . the owner of copyright . . . has the exclusive rights to do and to authorize any of the following:").

[13] H.R. REP. NO. 94-1476, at 66 (1976), *as reprinted in* U.S.C.C.A.N. 5659, 5680; Harper & Row Publ., Inc. v. Nation Enter., 471 U.S. 539, 549 (1985).

[14] H.R. REP. NO. 94-1476, at 66 (1976), *as reprinted in* U.S.C.C.A.N. 5659, 5680.

words "shall include."[15] "Shall" generally imparts a mandatory duty or obligation.[16] At the same time, Congress has defined "include" in the Copyright Act to resolve any ambiguity in whether the term's use introduces an illustrative set of examples or an exclusive list of exemplars.[17] For the Copyright Act, "[the term . . . 'including' . . . [is] illustrative and not limitative."[18] Consequently, examining all four expressed factors of the fair use defense is statutorily required ("shall"), but other considerations not expressly discussed in the statute can also be used ("include") as future circumstances require.

For many years, applying the four statutory factors found in section 107 was sufficient for the courts to resolve the fair use questions before them.[19] Since *Campbell v. Acuff-Rose Music Inc.*,[20] however, courts have increasingly focused on "transformation" as the pre-eminent fact that justifies a finding of fair use.[21] Reliance by lower courts is

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[15] 17 U.S.C. § 107.

[16] SHALL, RANDOM HOUSE UNABRIDGED DICTIONARY (2d ed. 1993) ("must; is or are obligated to"). *See, e.g.*, *Norman v. United States*, 942 F.3d 1111, 1117 (Fed. Cir. 2019); State *ex rel.* Botkins v. Laws, 632 N.E.2d 897, 900 (Ohio 1994).

[17] *Cf., e.g.,* Nievod v. Sebellius, No. C 11-4134 SBA, 2013 WL 503089, at *7 (N.D. Cal. Feb. 8, 2013) ("The key to whether 'includes' is intended to be used in an illustrative or a definitional manner is determined by its placement and context within the statute."); Matter of Welfare of H.B., 986 N.W.2d 158, 168–69 (Minn. 2022) (noting that the word "including" when standing alone is, at best, ambiguous about whether it limits the term defined to the examples listed).

[18] 17 U.S.C. § 101 (defining "including").

[19] *See, e.g.*, Sega Enter. Ltd. v. Accolade, Inc., 977 F.2d 1510, 1521–22 (9th Cir. 1992); Harper & Row Publ., Inc., 471 U.S. 539 (1985); Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417 (1984).

[20] 510 U.S. 569 (1994).

[21] *See, e.g.,* Brammer v. Violent Hues Prods., LLC, 922 F.3d 255, 262–63 (4th Cir. 2019); Authors Guild, Inc. v. HathiTrust, 755 F.3d 87, 95 (2d Cir. 2014); Monge v. Maya Mags., Inc., 688 F.3d 1164, 1176 (9th Cir. 2012); Bouchat v. Baltimore Ravens Ltd. P'ship, 619 F.3d 301, 314 (4th Cir. 2010).

understandable as the Supreme Court broadly stated in *Campbell* that,

> [t]he central purpose of this [fair use] investigation is to see, in Justice Story's words, whether the new work merely "supersede[s] the objects" of the original creation, or instead adds something new, with a further purpose or different character, altering the first with new expression, meaning, or message; it asks, in other words, whether and to what extent the new work is "transformative."[22]

Given *Campbell*'s sweeping language, it is not surprising that looking for "transformation" became the central focus of subsequent litigation.[23] An appreciation of how *Campbell* made fair use into the "transformative doctrine" can be appreciated by the cases summarized by the Second Circuit in *Authors Guild*:

> Under the fair-use doctrine, a book reviewer may, for example, quote from an original work in order to illustrate a point and substantiate criticisms and a biographer may quote from unpublished journals and letters for similar purposes. An artist may employ copyrighted photographs in a new work that uses a fundamentally different artistic approach, aesthetic, and character from the original. An internet search engine can display low-resolution versions of copyrighted images in order to direct the user to the website where the original could be found. A newspaper can publish a copyrighted photograph 18 (taken for a modeling portfolio) in order to inform and entertain the newspaper's readership about a news story. A viewer can create a recording of a broadcast television show in order to view it at a later time. And a

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[22] *Campbell*, 510 U.S. at 579 (citations omitted).
[23] Westlaw reports 583 cases in the lower courts that discuss "transformation" as part of the fair use analysis. Westlaw Search by Author (Dec. 21, 2023 12:24 pm) (searching for "copyright & transform! /p 'fair use' & DA(aft 3-7-1994)").

competitor may create copies of copyrighted software for the purpose of analyzing that software and discovering how it functions (a process called "reverse engineering").[24]

Consequently, "transforming" a copyrighted work became fair use's talisman.[25] Other rights given to the author of a work by the statute—particularly the right of derivation under section 106(2)—seemed to become increasingly smaller.[26]

Unfortunately, the breadth of the transformation doctrine created in *Campbell* causes significant problems because the analysis does not work in many cases. For example, if an infringer takes a copyrighted novel and transforms it only by changing all the names of the characters,[27] or an infringer takes a photograph and transforms it by changing the colors in which it is rendered,[28] the transformation is not fair use. The Supreme Court recently acknowledged the analytic difficulties that the transformative doctrine caused in the second example and

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[24] 755 F.3d at 95.

[25] *See supra* note 23.

[26] *See* Kienitz v. Sconnie Nation LLC, 766 F.3d 756, 758 (7th Cir. 2014) ("asking exclusively whether something is "transformative" . . . could override 17 U.S.C. § 106(2), which protects derivative works"); Morris v. Young, 925 F. Supp. 2d 1078, 1088 (C.D. Cal. 2013) (requiring trial on whether placing additional images with the easily identified allegedly infringing visual work "may convey a new message, meaning, or purpose beyond that of the Subject Photograph."). *See generally*, Laura A. Heymann, *Everything Is Transformative: Fair Use and Reader Response*, 31 COLUM. J.L. & ARTS 445 (2008); Matthew D. Bunker, *Eroding Fair Use: The "Transformative" Use Doctrine after Campbell*, 7 COMM. L. & POL'Y 1 (2002).

[27] *Cf.* Nichols v. Universal Pictures Corp., 45 F.2d 119, 121 (2d Cir. 1930) (L. Hand, C.J.).

[28] *See* Andy Warhol Found. for the Visual Arts, Inc. v. Goldsmith, 598 U.S. 508 (2023).

moved away from its primacy in fair use analysis.[29]   The Court stated that:

> Although new expression may be relevant to whether a copying use has a sufficiently distinct purpose or character, it is not, without more, dispositive of the first factor . . .   The use of an original work to achieve a purpose that is the same as, or highly similar to, that of the original work is more likely to [be unfair] . . . . Consider the purposes listed in the preamble paragraph of § 107 . . . . Although the examples given are illustrative and not limitative, they reflect the sorts of copying that courts and Congress most commonly have found to be fair uses, and so may guide the first factor inquiry.[30]

By recognizing this limitation on—indeed, inaccuracy of—the transformation doctrine, the Court has reestablished the importance of making specific reference to the types of purposes listed in the opening paragraph of section 107 of the Copyright Act.[31]   Congress carefully crafted Section 107 to provide a flexible analysis of fair use, which has proved its resilience in new applications.[32]

Similarly, the Court has attempted to draw a definitive line between fictional and nonfictional works.[33] This analytical shortcut fails. A nonfiction work is much more likely to express an "idea, procedure, process, system, method of operation, concept, principle, or discovery"[34] than a fictional work, but the presence of these factors should not impact a fair use analysis as each are excluded completely

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[29] *Id.*

[30] *Id.* at 525–28 (quotation marks and citations omitted).

[31] *See id.* at 528.

[32] *See* Authors Guild, Inc. v. HathiTrust, 755 F.3d 87, 95 (2d Cir. 2014) (listing examples).

[33] *See* Stewart v. Abend, 495 U.S. 207, 237 (1990).

[34] 17 U.S.C. § 102(b).

from any copyright protection.[35]   Section 106 limits the rights provided by the copyright statute, including fair use protections under section 107, to an "owner of copyright."[36] There are no copyright ownership rights in facts.[37]   For nonfictional works, therefore, the courts should rely upon section 102(b) to exclude non-expressive protection, using the levels of abstraction test that has served copyright well for over ninety years.[38]

III.   THE SUPREME COURT'S DECISION INVOLVING COMPUTER SOFTWARE IN *GOOGLE V. ORACLE*– USING THE FAIR USE TAIL TO SUPPLANT THE COPYRIGHT DOG

If copyright protection is the dog and fair use is the tail, for software it has become difficult to determine which is the copyright actor and which is the appendage. *Google*[39] effectively nullified copyright protection for computer programs, particularly for the popular ones.[40] To appreciate why this is true, a factual description of the software involved in *Google*—specifically Java and its APIs but also other programming languages—is needed. The Court's use of each of the statutory fair use factors under section 107 is also analyzed, supporting the contention that for computer programs, the fair use defense subsumes program copyright protection.

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[35] *Id.*

[36] *Id.* § 106.

[37] Feist Publications, Inc. v. Rural Telephone Serv. Co., Inc., 499 U.S. 340, 344 (1991).

[38] *See* Nichols v. Universal Pict. Corp., 45 F.2d 119 (2d Cir. 1930) (L. Hand, C.J.); Computer Assoc. Int'l, Inc. v. Altai, Inc., 982 F.2d 693 (2d Cir. 1992). *See generally* Clifford, *supra* note 1, at 147–56 (discussing the application of the levels of abstraction test for computer software).

[39] Google LLC v. Oracle America, Inc., 141 S. Ct. 1183 (2021).

[40] *See* Adam Mossoff, *Declaring Computer Code Uncopyrightable with A Creative Fair Use Analysis*, CATO SUP. CT. REV. 237, 238–39 (2021).

A.   A Brief Factual Description of the Software Involved in Google v. Oracle— Java and Other Programming Languages

Java is an extremely popular computer programming language, particularly for developing Internet code.[41] Calling a computer program like Java a "computer language," however, does not transform its basic nature. It remains a computer program, just one with a particular kind of task: taking new code written by a user of Java and transforming it into a computer-operable program. In summary, the Java computer program makes it easier for someone to create additional computer programs.[42]

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[41] *See* Clifford, *supra* note 1, at 145–46. *See generally* GARY CORNELL & CAY S. HORSTMANN, CORE JAVA xxi–xxii (2d ed. 1997). *Core Java* is the pre-eminent, initial description of Java. It was written for Oracle's predecessor Sun Microsystems, Inc. as Java was released. Sun Microsystems owns the copyright in the book and it was distributed with the corporate name and logo on the front cover.

[42] *See* Clifford, *supra* note 1, at 144–45; 17 U.S.C. § 101 (defining "computer program"); Mark Fischetti, *50, 100 & 150 Years Ago: Ro: A Universal Language*, SCI. AMER., July–Aug., 2023 (distinguishing between a human authored language, "Ro," and a naturally evolving language, "English"). *See generally* Adrienne Bloss, *Language Processors in* ENCYCLOPEDIA OF COMPUT. SCI. 955 (Anthony Ralston et al. eds., 4th ed. 2000); Jean E. Sammet & David Hemmendinger, *Programming Languages, in* ENCYCLOPEDIA OF COMPUT. SCI. 1470 (Anthony Ralston et al. eds., 4th ed. 2000).

"Computer Languages" such as Java are needed because computers operate exclusively using electronic signals that humans cannot perceive directly. *See, e.g.,* C. WILLIAM GEAR, COMPUTER ORGANIZATION AND PROGRAMMING 3–4, 16–17 (1969). Even if the electronic signals are translated into a one for the presence of the signal and a zero for its lack (called "machine language"), it remains effectively impossible to write the typical millions of ones and zeros that are needed to make the computer achieve a desired result, particularly as incorrectly coding any of these millions of digits can result in the program malfunctioning. *See id.* at 13. To avoid having to do this, "computer languages" such as Java have been created. *See id.* at 13–17. These languages use the power of the computer to transform statements more easily understood by humans

Java became popular for a few reasons. First, unlike most of the other hundreds of computer languages that pre-dated Java,[43] Java runs on almost any hardware, from main-frame supercomputers to smartphones.[44] If a new form of hardware is developed, programmers must write a new Java Virtual Machine (JVM) for the new hardware, a comparatively simple task. Once the JVM is completed, both new and most existing Java programs can be run on the target hardware.[45] Second, Java was marketed uniquely by Oracle and the predecessor corporate creator and owner of Java, Sun Microsystems.[46] If one wanted to use Java for personal coding needs, it was effectively free.[47] Similarly, if Java was used to write a commercially distributed software package, it remained free as long as the programmer expressly agreed to allow anyone to use the code without

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(e.g., "SUBTRACT deductions FROM gross_pay GIVING net_pay") into the precise ones and zero of machine language (e.g., "001100011101010 … 0110") that are required by a computer. *See id.* *See generally*, RALPH D. CLIFFORD, COMPUTER AND CYBER LAW 10–15 (1999) (describing how computer software works).

[43] Sammet & Hemmendinger, *supra* note 42, at 1937, 1939–43 (listing fifty programming languages as the most popular from over 1,000 possibilities).

[44] Harold W. Thimbleby, *Java, in* ENCYCLOPEDIA OF COMPUT. SCI. 937, 937 (Anthony Ralston et al. eds., 4th ed. 2000) (describing the Java Virtual Machine which provides this capability).

[45] *Id.* It should be noted that Java is not the only currently used computer language that uses a virtual machine, as most current object-oriented computer languages—and there are probably about fifty of them—do. *See* Scott Hunt, *What are Virtual Machines?* (May 12, 2019), https://medium.com/@principledminds/virtual-machines-explained-5578371195f [https://perma.cc/9DCY-HYNN]; Baeldung, *An Overview of the JVM Languages* (Dec. 2, 2021), https://www.baeldung.com/jvm-languages. [https://perma.cc/5XGP-ZBB9].

[46] Press Release, Oracle Corp., Oracle Buys Sun, (Apr. 20 , 2009) , https://www.oracle.com/corporate/pressrelease/oracle-buys-sun-042009.html. [https://perma.cc/4T8W-85NW].

[47] *See* Google LLC v. Oracle America, Inc., 141 S. Ct. 1183, 1211–12 (2021) (Thomas, J., dissenting).

charge.[48] However, if one did not want to share the code written for the new software, one would need a license from Oracle and would need to pay royalties.[49] The free-use option made Java the choice language among thousands of web-based programmers who had ideas for new applications but lacked the necessary assets to develop platform-independent software.[50] Apparently, Google did not want others to use its Android code.[51] Although Google could have obviously afforded to pay royalties to Oracle for its use of Java,[52] it

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[48] *See id.* It is important to recognize that providing access to your code and allowing others to use it is not the same as allowing them access to the product you distribute. In effect, the Sun/Oracle licensing scheme requires a free user to expand the library of APIs that are available to other *licensed* (whether free or commercial) Java programmers. *See id.; See generally Oracle Java SE Licensing FAQ*, https://www.oracle.com /java/technologies/javase/jdk-faqs.html [https://perma.cc/H4S2-RNXE] (last visited June 14, 2023). The Sun/Oracle marketing scheme for Java also led other early Internet software developers to support the language, particularly its "applets" which allow for more powerful functionality on the World Wide Web. *See* CORNELL & HORSTMANN, *supra* note 41, at 10 (noting that Netscape version 2 developed in January of 1996 supported Java applets). For more information about applets and their importance to the World Wide Web, *see id.* at 319-63.

[49] *Google,* 141 S. Ct. at 1211–12 (Thomas, J., dissenting). This caveat was apparently what prevented Google from voluntarily licensing Java from Oracle. *See id.*

[50] It is surprising that this distribution scheme for Java that made it among the most popular computer languages ever gained no fair use credit for Oracle in the majority opinion.

[51] Google has not made its version of Java with its APIs routinely available to the programming community. *See How do I get Java for Mobile device?* https://www.java.com/en/download/help/java_mobile.html [https://perma.cc/4KY6-AZJK] (last visited Feb. 2, 2024) ("Java capability for mobile devices is generally integrated by the device manufacturers. It is NOT available for download or installation by consumers.").

[52] In 2005 when the Android development was active, Google had a market capitalization of approximately 54 billion dollars. Alphabet Inc. (GOOGL), https://stockanalysis.com/stocks/googl/market- cap/ [https://perma.cc/39PF-

chose, instead, to copy a significant part of Oracle's Java language without obtaining permission and paying compensation.[53] This allowed Google to "erase . . . 97.5% of the value of Oracle's partnership with Amazon, . . . [make] tens of billions of dollars [for Google], and establish . . . [Google's] position as the owner of the largest mobile operating system in the world."[54]

B. Section 107—Copyright Fair Use is "for Purposes Such as Criticism, Comment, News Reporting, Teaching . . . Scholarship, or Research,"[55] Which Does Not Describe What Google Did

The basic facts in *Google* establish copyright infringement.[56] Oracle owned a copyright in Java.[57] Google admittedly copied significant parts of this expression.[58] Despite this, Google was authorized to copy without compensation as the Supreme Court determined that the copying was fair use.[59] The fair use determination seems extraordinary as it authorized the transfer of billions of dollars of value from the copyright owner to a commercial

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QYTV] (last visited June 16, 2023 7:59 PM); As this article is being written, its market value has increased almost thirty times to 1,568 billion dollars. *Id.*

[53] *Google*, 141 S. Ct. at 1190–91. *See also* CORNELL & HORSTMANN, *supra* note 41, at 168–71 (describing the integration of APIs with the Java programming language).

[54] *Id.* at 1211–12 (Thomas, dissenting).

[55] 17 U.S.C. § 107.

[56] *E.g.* Castle Rock Entertainment, Inc. v. Carol Publishing Group, Inc., 150 F.3d 132, 137–38 (2d Cir. 1998) ("Copyright infringement is established when the owner of a valid copyright demonstrates unauthorized copying.").

[57] *Google,* 141 S. Ct. at 1190.

[58] *Id.*

[59] *Id.*

copyist. To understand the weakness of the Court's holding, one needs to start with an examination of the statute's basic requirements including the four statutory fair use factors. Doing so will highlight both the Court's fundamental factual and legal flaws in its decision and the significant harm that may occur in the software industry because of the decision.

Although originally a judicial doctrine, fair use was codified in section 107 of the Copyright Act of 1976.[60] In codifying the defense, the legislative intent was to allow an otherwise infringing use of a copyrighted work when this use would prevent the loss of an important advantage to society.[61] Although the examples given in the statute— "criticism, comment, news reporting, teaching . . . scholarship, or research"[62]—do not limit other similar uses,[63] they are connected to important societal goals associated impact by copyright law. Fair use mitigates some of the adverse consequences of copyright law, where its limited monopoly causes a problem addressed by the First Amendment. *e.g.*, news reporting; it limits the expansion of knowledge, *e.g.* research; or it curtails the advancement of society, *e.g.* teaching.[64] Fair use broadly seeks to re-adjust the balance of rights between the copyright holder and society in those limited times when the normal rights obtained under the law are so broad that society suffers significantly.[65]

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[60] H.R. REP. NO. 94-1476, at 72–74 (1976), *as reprinted in* U.S.C.C.A.N. 5659, 5686–87.

[61] *Id.* This is limited to the expressive aspects of the work, as the non-expressive parts of the work are already in the public domain. 17 U.S.C. § 102(b).

[62] 17 U.S.C. § 107.

[63] *Id.* § 101 (defining "such as" to be illustrative).

[64] Golan v. Holder, 565 U.S. 302, 324–26 (2012).

[65] *See id.*; Andy Warhol Found. for the Visual Arts, Inc. v. Goldsmith, 598 U.S. 508, 527 (2023); Campbell v. Acuff-Rose Music Inc., 510 U.S. 569, 574-76 (1994); H.R. REP. NO. 94-1476, at 72–74 (1976), *as reprinted in* U.S.C.C.A.N. 5859, 5686–87.

However, in *Google*, no readjustment was needed. None of Congress' examples in section 107 apply to what Google was doing. Google was not engaged in "criticism, comment, news reporting, teaching . . . scholarship, or research,"[66] nor anything similar; instead, it was involved in creating a new commercial product. What Google was doing does not touch on the broader societal issues of concern to fair use. The purpose of what Google was doing was not speech; rather, it was specifically to make money by developing and selling a new smartphone based on the software it was writing. Similarly, it was not seeking to expand knowledge, it intended to sell a new smartphone which would be subject to its full claim to the intellectual property rights.[67] Google was not seeking to overcome a blockage on knowledge transmission caused by Oracle's copyright as the facts demonstrate clearly that this knowledge of Java was already widely disseminated.[68]

In summary, the fair use defense does not naturally apply in the *Google* case. Before the appropriation of the Java API definitions by Google, there was one set of these APIs

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[66] 17 U.S.C. § 107.

[67] *See* Google Privacy and Terms, https://policies.google.com/terms [https://perma.cc/Y2TZ-JUZB] (last visited Jan. 5, 2022) ("[W]e retain any intellectual property rights we have").

[68] *See* Alexander Belokrylov, *Why And How Java Continues To Be One Of The Most Popular Enterprise, Coding languages,* FORBES.COM (Apr. 6, 2022 9:15 AM), https://www.forbes.com/sites/forbestechcouncil /2022/04/06/why-and-how-java-continues-to-be-one-of-the-most- popular-enterprise-coding-languages/?sh=1316058d3616 [https://perma.cc/865K-SG3B] ("Java [is] the second most popular [computer] language in the world"). Importantly, this breadth of knowledge of the Java language was caused to a great extent by how Oracle distributed the product, making it available broadly to those who were not involved in a commercial enterprise or could not be expected to afford royalties. *See supra* Section III.A.

for Java:[69] Oracle's; after the infringement, there were two: Oracle's and Google's. Since Google merely copied the API definitions, it violated Oracle's copyright in Java.[70] This was not done to enable Google to criticize or comment on the Java APIs (nor any use that is similar): it used Oracle Java APIs as every other user would to write new computer programs. Google was not engaged in news reporting, teaching, scholarship, or research about Oracle's Java or its APIs (again, nor any use that is similar): it used the Java API definitions wholesale to develop a new and very commercial product:[71] the Android smartphone operating system. Consequently, Google's use of the API definitions cannot accurately be considered to be the kind of use that is fair under section 107 as it "supersede[s] the objects' of the original creation . . . ('supplanting' the original'), [and does not] add[] something new, with a further purpose or different character."[72]

Of course, Congress did not leave the courts with just broad statements about fair use, as it provided four subsections to assist in the analysis of whether a particular use should be deemed to be fair.[73] An examination of each of the specific aspects of the defense will be done next. When completed, this will confirm the conclusion that Google's appropriation of the Java API definitions was not fair use.

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[69] It is important to remember that the Java computer language itself along with its APIs are an expressive creation of its author. *See supra* Section III(A).

[70] *See* 17 U.S.C. § 106(1).

[71] Google LLC v. Oracle America, Inc., 141 S. Ct. 1183, 1211 (2021) (Thomas, J., dissenting); ("As a result [of copying Oracle's Java], [Google] made tens of billions of dollars . . .").

[72] Andy Warhol Found. for the Visual Arts, Inc. v. Goldsmith, 598 U.S. 508, 528 (2023) (quotation marks and citations omitted).

[73] *See* 17 U.S.C. § 107(1)–(4).

1. ***Subsection One*[74]—The Purpose of Google's Copying Was to Substitute Oracle's Copyrighted Java Computer Program APIs Completely for the Same Commercial Purpose Which is not Fair Use**

The first detailed factor within section 107 examines three things: (1) what purpose was achieved because of the copying, (2) was it done for commercial or nonprofit purposes, and (3) was the ultimate result "transformative" of what the first expression achieved.[75] The Court's analysis on all of these was faulty as will be demonstrated in the three subsections below.

> a. *Google Did Not Achieve a Purpose Other than the One Achieved by Oracle*

> Here Google's use of the [Oracle] Java API seeks to create new products. It seeks to expand the use and usefulness of Android-based smartphones. Its new product offers programmers a highly creative and innovative tool for a smartphone environment. To the extent that Google used parts of the [Oracle] Java API to create a new platform that could be readily used by programmers, its use was consistent with that creative "progress" that is the basic constitutional objective of copyright itself.[76]

This argument is fallacious. To appreciate this, consider a short hypothetical. Suppose a court takes

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[74] *Id.* § 107(1) ("the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes").

[75] *Id.* (addressing the purpose achieved and whether it was commercial or nonprofit); *Campbell,* 510 U.S. at 561 (establishing the transformation test).

[76] *Google*, 141 S. Ct. at 1203.

testimony from an author accused of copyright infringement who says, "Yes, your honor, I did take J.K. Rowling's description of Hogwarts, but I made a new story based on it. My story is 'highly creative and innovative,' so we now have more stories for everyone to enjoy in the world of Hogwarts. This shows that I have achieved the basic purpose of copyright—I've written a new and creative work! Consequently, the fair use analysis concerning the purpose of the copying should favor fair use, any right given to Ms. Rowling in § 106(2) notwithstanding."[77]

There are clearly differences between fictional novels and computer programs. For example, section 102(b) of the Copyright Act is much more exacting on a computer program than it is on a novel because more of the program will be properly classified as ideas rather than expressions.[78] At the same time, after the appropriate abstractions and filtrations are done on both the novel and computer program,[79] both will have a substantial expressive fruit that is protectable by copyright and a non-expressive core that is not.[80] It is how the fruit of expression in the computer program was used that should be the focus of section 107(1).

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[77] In a case involving another popular work, *The Lord of the Rings*, a trial court recently found that the author of another work based on the *Rings* imaginary world constituted copyright infringement. Remy Tumin, *Tolkien Estate Wins Court Order to Destroy Fan's 'Lord of the Rings' Sequel,* (Dec. 21, 2023, 5:38 AM), https://www.nytimes.com /2023/12/21/arts/lord-of-the-rings-sequel-lawsuit.html [https://perma.cc/XS86-6B8Z].

[78] *See* Clifford, *supra* note 1, at 147, 156–58.

[79] *See, e.g.*, Nichols v. Universal Pictures Corp., 45 F.2d 119 (2d Cir. 1930) (L. Hand, C.J.).

[80] *See* Clifford, *supra* note 1; Kershaw, *supra* note 1. For example, having and using a set of APIs within a computer language would be an excludable idea under § 102(b) just as the section would exclude witches and warlocks having magic wands in the *Harry Potter* series. An invented name, history, and composition of a particular wand—e.g. the "Elder Wand"— would almost certainly be expressive, however. *See Elder Wand*, HARRY

The Court in its analysis focuses on Google's desire "to create new products."[81] To be blunt, of course that was the goal because that is the exact purpose of a computer language (with its APIs) such as Java.[82] Java exists for writing new code.[83] If it is deemed to be fair use to use a computer language the way Google did, the copyright that Congress intended to protect computer programs[84] has been nullified for the entire class of such software.

It seems clear that the Court has seriously misstated how the copyright system works.[85] While there is no question that the broad goal of copyright is to encourage the development of new creative expressions, it does this by providing an incentive to authors by limiting others' use of their created work.[86] When Ms. Rowling created the *Harry Potter* world, she was given a reward for doing so that limits others from appropriating it. Rewarding her is the price—

POTTER WIKI, https://harrypotter.fandom.com/wiki/Elder_Wand#cite_ref-DH21_1-9 [https://perma.cc/638J-CZQQ] (last visited Feb. 2, 2024). Likewise, the particular choice of APIs to include within a Java version, along with the created naming convention for them would also be expressive. *See* supra Section III(A).

[81] *Google*, 141 S. Ct. at 1203.

[82] *See supra* Section III(A).

[83] *Id.*

[84] H.R. REP. NO. 94-1476, at 54 (1976), *as reprinted in* 1976 U.S.C.C.A.N. 5659, 5667 ("The term 'literary works' . . . includes . . . computer programs to the extent that they incorporate authorship in the programmer's expression of original ideas, as distinguished from the ideas themselves."); *id.* at 116, *as reprinted in* 1976 U.S.C.C.A.N. at 5731 ("With respect to the copyrightability of computer programs, the ownership of copyrights in them, the term of protection, and the formal requirements of the remainder of the bill, the [1976 Copyright Act] would apply.").

[85] *See Google,* 141 S. Ct. at 1203.

[86] *See, e.g.,* Mazer v. Stein, 347 U.S. 201, 219 (1954); Jeanne C. Fromer, *Expressive Incentives in Intellectual Property*, 98 VA. L. REV. 1745, 1751 (2012); Shyamkrishna Balganesh, *Foreseeability and Copyright Incentives*, 122 HARV. L. REV. 1569, 1576–77 (2009).

new works from other authors who want a similar reward is the copyright system's goal.[87] As with Hogwarts, the creativity of Oracle in creating Java and its APIs requires copyright protection because, without it, no one has an incentive to create the next great computer language.[88]

Using the computer language called Java to express new computer programs is exactly what Oracle intended with the language's creation.[89] Removing the reward for having done so works directly against the functioning of the copyright system. Why would another author expend any effort to express a new computer programming language when the opportunity for an economic return is absent?

> b. *Google's Copying Was Exclusively Commercial Which is Inconsistent with Fair Use*

> There is no doubt that a finding that copying was not commercial in nature tips the scales in favor of fair use. But the inverse is not necessarily true, as many common fair uses are indisputably commercial.[90]

The Supreme Court's statement in *Google* about the effect on fair use of a commercial transaction inaccurately presents how the Court had previously treated the issue. Tracing the history of the subject starts with an unbroken string of cases where the presumption against commercial

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[87] *E.g.*, Donald S. Chisum & Michael A. Jacobs, *Understanding Intellectual Property Law* § 1C (1992).

[88] Clifford, *supra* note 1, at 145–46. (describing how authors have crafted at least 1,000 different computer languages in the eighty-year history of computer programming, none of which solve all the problems of writing computer programs).

[89] *See supra* Section III(A).

[90] *Google,* 141 S. Ct. at 1204.

fair use was not overcome.[91] The first Supreme Court case that found that copying was fair use despite the commercial nature of enterprise was *Campbell v. Acuff-Rose,* decided in 1994.[92] After *Campbell*, the Court did not revisit fair use until *Google.* If, therefore, there is a justification for the fair use finding in *Google* it should be found in *Campbell*.

In *Campbell,* the Court confirmed that there is a presumption against commercial fair use but found reasons to rebut it because of how the defendants used the work.[93] The Court was evaluating whether the defendants' appropriation of a song owned by the plaintiff was fair use.[94] The song was not just copied; rather, it was taken and modified, effectively a derivative work under the copyright statute.[95] The distinguishing fact in *Campbell* was that the defendants' version was clearly a parody of the original.[96] At the same time, the use was also clearly commercial as more than 250,000 copies of the defendants' song were sold.[97]

In evaluating whether the commercial nature of the musical adaptation should presumptively lead to a finding against fair use, the Court stressed that commercial use can only be one factor in the analysis, and that a large difference

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[91] Stewart v. Abend, 495 U.S. 207, 237 (1990) (finding that a movie version of a copyrighted work was unfair because it was not within the categories specified in § 107 and was commercial); Harper & Row Publishers, Inc., v. Nation Enter., 471 U.S. 539, 562 (1985) ("The crux of the profit/nonprofit distinction is not whether the sole motive of the use is monetary gain but whether the user stands to profit from exploitation of the copyrighted material without paying the customary price."); Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 449 (1984) ("If the Betamax were used to make copies for a commercial or profit-making purpose, such use would presumptively be unfair.").

[92] Campbell v. Acuff-Rose Music Inc., 510 U.S. 569, 571 (1994).

[93] *Id.* at 583–85.

[94] *Id*. at 571.

[95] 17 U.S.C. § 106(2).

[96] *Campbell*, 510 U.S. at 572–73.

[97] *Id*. at 573.

in purpose and message between the original and copyist's expressions would affect the fair use balance.[98] In *Campbell*, the Court found the changes to be significant as the defendants had transmuted a country song into a rap version with, critically, a different substantive message than the original.[99] The Court also found that the fact that the defendants' version was a parody of the original strongly supported a finding of fair use.[100] The Court noted that parody is a criticism of, or at least a comment on, the original,[101] and both are forms of use of a copyrighted work that Congress expressly categorized in the Copyright Act as more likely being fair.[102]

To summarize the fair use defense after *Campbell*, a commercial use could be found to be fair where there was a compelling justification comparable to those listed by Congress in section 107.[103] Without one of these special circumstances, however, the presumption against fair use in a commercial case rule should be significantly, if not overwhelming, weighed.[104]

When Google's use of Oracle's work is examined under this standard, however, it does not show any of the statutorily listed circumstances; instead, the facts in *Google v. Oracle* are simply not analogous to the preferred uses listed in the statute nor to the use made in *Campbell*, thus

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[98] *Id*. at 583-85.

[99] *Compare id.* at 594–95 ("Oh Pretty Woman", original version) *with id.* at 595–96 ("Pretty Woman", fair use version).

[100] *Id.* at 579–80.

[101] *Id. See generally Parody*, RANDOM HOUSE UNABRIDGED DICTIONARY (2d ed. 1993).

[102] 17 U.S.C. § 107.

[103] *Campbell*, 510 U.S. at 577–79.

[104] *Cf.* Harper & Row Publishers, Inc. v. Nation Enters., 471 U.S. 539, 562 (1985) ("The crux of the profit/nonprofit distinction is . . . whether the user stands to profit from exploitation of the copyrighted material without paying the customary price.").

demonstrating an intent to supersede the original.[105] Google was not "critici[zing]"[106] Oracle's Java APIs—it was using them as their author intended to write new code.[107] It was similarly not "comment[ing]"[108] on the APIs—it was writing programs.[109] Neither *Campbell* nor *Google* involved "news reporting"[110] as information was not being distributed to the public,[111] "teaching"[112] as there were no students involved,[113] "scholarship"[114] as the distributions were not to spread knowledge particularly in an educational environment,[115] or "research"[116] as new knowledge was not

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[105] *See* Folsom v. Marsh, 9 F. Cas. 342, 344–45 (C.C.D. Mass.1841) ("[if] it is . . . clear, that [the subsequent author] cites the most important parts of the work, with a view, not to criticize, but to supersede the use of the original work, and substitute the review for it, such a use will be deemed in law a piracy."); *Harper & Row Publishers*, 471 U.S. at 550 (adopting the same).

[106] 17 U.S.C. § 107.

[107] *Criticism*, RANDOM HOUSE UNABRIDGED DICTIONARY (2d ed. 1993) ("the act of passing judgment as to the merits of anything").

[108] 17 U.S.C. § 107.

[109] *Comment*, RANDOM HOUSE UNABRIDGED DICTIONARY (2d ed. 1993) ("a remark, observation, or criticism").

[110] 17 U.S.C. § 107.

[111] *News*, RANDOM HOUSE UNABRIDGED DICTIONARY (2d ed. 1993) ("the presentation of a report on recent or new events in a newspaper or other periodical or on radio or television"). As news reporting moves increasing onto the Internet, the courts have recognized that such things as blogs can be a modern version of a newspaper. *See, e.g.*, *Toll v. Wilson*, 453 P.3d 1215, 1218 (Nev. 2019); *Cause of Action v. F.T.C.*, 799 F.3d 1108, 1123 (D.C. Cir. 2015).

[112] 17 U.S.C. § 107.

[113] *Teach*, RANDOM HOUSE UNABRIDGED DICTIONARY (2d ed. 1993) ("to impart knowledge of or skill in; give instruction in").

[114] 17 U.S.C. § 107.

[115] *Scholarship*, RANDOM HOUSE UNABRIDGED DICTIONARY (2d ed. 1993) ("learning; knowledge acquired by study; the academic attainments of a scholar").

[116] 17 U.S.C. § 107.

being sought or obtained.[117] Consequently, Google was a pure commercial actor and was not involved in any of the special uses—directly or by analogy—that Congress addressed in section 106.[118] Google took Oracle's expressed APIs and used them to supersede its own expression.[119] Since the time of Justice Story in the early 1800s, violating copyrights to produce a superseding work has not been considered fair.[120]

> ### c. Google did not Transform Oracle's Java APIs as it Used Them in a way that was Identical to their Original Purpose

> These and related facts convince us that the 'purpose and character' of Google's copying was transformative—to the point where this factor too weighs in favor of fair use . . . Google's use . . . was inherently transformative [in the] role that the reimplementation played in the new Android system.[121]

The Court's unsupported assertion that Google's use was "transformative" is amazing. The Court seems to think

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[117] *Research*, RANDOM HOUSE UNABRIDGED DICTIONARY (2d ed. 1993) ("diligent and systematic inquiry or investigation into a subject in order to discover or revise facts, theories, applications, etc.").

[118] It also should be noted that Google was in the position to pass the costs of obtaining permission to use Oracle's APIs on to its customers. The Android operating system created by Google is estimated to bring Google almost 19 billion dollars a year in revenues. Kamil Franek, *How Google Makes Money from Android: Business Model Explained* (Jan. 14, 2020), https://www.kamilfranek.com/how-google-makes-money-from-android/ [https://perma.cc/B3ZH-UPJK].

[119] *See supra* Section III(B)(1).

[120] Harper & Row Publishers, Inc. v. Nation Enters., 471 U.S. 539, 550 (1985); Folsom v. Marsh, 9 F. Cas. 342, 344–45 (C.C.D. Mass.1841).

[121] Google LLC v. Oracle America, Inc., 141 S. Ct. 1183, 1204 (2021).

that Google changed Oracle's Java APIs into a smartphone, or at least into the phone's operating system.[122] But that is not what Google did; instead, it copied Oracle's Java APIs to create Google's selfsame Java APIs.[123] The two Java-based systems of "cabinets, drawers, and files"[124] are identical in form and purpose, so stating that transformation had occurred is simply false.

It is here, too, where the fundamental purpose of Java and its APIs must be remembered. Both Oracle's and Google's version of this computer language have the express purpose of allowing others to develop additional software.[125] Neither company's resulting Java system is limited to developing the operating software for a specific brand of smartphone; indeed, these Java language processors have been used to develop numerous additional and diverse applications.[126]

The Supreme Court's difficulty here did not originate only from its factual misunderstanding of the software before it, but also from the confusing—and even controversial— nature of the transformative fair use doctrine that the Court

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[122] *Id.*

[123] *Id.* at 1205.

[124] *Id.* at 1203.

[125] *See supra* Section III(A).

[126] *See* Andrew Suschevich, *8 Best Popular Projects on Java*, MEDIUM (June 2, 2020), https://medium.com/javarevisited/8-best-popular-projects-on-java-e1a663ab3cc1 [https://perma.cc/9U8T-L3TF]. *But see How do I get Java for Mobile device?*, JAVA, https://www.java.com/en /download/help/java_mobile.html (last visited Feb. 2, 2024) ("Java capability for mobile devices is generally integrated by the device manufacturers. It is NOT available for download or installation by consumers.").

delineated in *Campbell*.[127] Both the courts[128] and academic literature[129] continue to struggle with the concept as it contradicts other core aspects of copyright law. Fundamentally, as the Seventh Circuit has pointed out, a derivative work under section 106(2) of the Copyright Act is

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[127] *Campbell*, 510 U.S. at 578–85. The origin of the concept can be found in "Toward a Fair Use Standard." *Id* at 576 (citing Pierre N. Leval, *Toward a Fair Use Standard*, 103 HARV. L. REV. 1105, 1111–12 (1990)).

[128] Cambridge Univ. Press v. Patton, 769 F.3d 1232, 1261–63 (11th Cir. 2014) (converting books into electronic form is not transformative); Authors Guild, Inc. v. HathiTrust, 755 F.3d 87, 97 (2d Cir. 2014) (creating a searchable database of book extracts was transformative); Kienitz v. Sconnie Nation LLC, 766 F.3d 756, 758 (7th Cir. 2014) (refusing to use the transformative fair use defense as it is contradicted by § 106(2) of the statute); Murphy v. Millennium Radio Grp. LLC, 650 F.3d 295, 306 (3d Cir. 2011) (using unaltered photograph in a different way is not transformative); Bouchat v. Baltimore Ravens Ltd. P'ship, 619 F.3d 301, 308 (4th Cir. 2010) (finding a transformative use determines that the use is similar to those listed in § 107); A.V. *ex rel* Vanderhye v. iParadigms, LLC, 562 F.3d 630, 639 (4th Cir. 2009) (holding that an anti-plagiarism system was fair use despite it purpose of destroying students' market for papers); Perfect 10, Inc. v. Amazon.com, Inc., 508 F.3d 1146, 1165 (9th Cir. 2007) (a use is "transformative so long as the copy serves a different function than the original work."); Zomba Enters. Inc. v. Panorama Records, Inc., 491 F.3d 574, 582–83 (6th Cir. 2007) (adapting song into a Karaoke version is not transformative); Bill Graham Archives v. Dorling Kindersley Ltd., 448 F.3d 605, 609 (2d Cir. 2006) (using poster for educational purposes transformed it).

[129] *E.g.* Jacob Victor, *Utility-Expanding Fair Use*, 105 MINN. L. REV. 1887 (2021); Clark D. Asay, Arielle Sloan, & Dean Sobczak, *Is Transformative Use Eating the World?*, 61 B.C. L. REV. 905 (2020); Jiarui Liu, *An Empirical Study of Transformative Use in Copyright Law*, 22 STAN. TECH. L. REV. 163 (2019); Brian Sites, *Fair Use and the New Transformative*, 39 COLUM. J.L. & ARTS 513 (2016); Michael D. Murray, *What Is Transformative? An Explanatory Synthesis of the Convergence of Transformation and Predominant Purpose in Copyright Fair Use Law*, 11 CHI-KENT J. INTELL. PROP. 260 (2012); Laura A. Heymann, *Everything Is Transformative: Fair Use and Reader Response*, 31 COLUM. J.L. & ARTS 445 (2008); Diane Leenheer Zimmerman, *The More Things Change The Less They Seem "Transformed": Some Reflections On Fair Use*, 46 J. COPYRIGHT SOC'Y U.S.A. 251 (1998); Laura G. Lape, *Transforming Fair Use: The Productive Use Factor In Fair Use Doctrine*, 58 ALB. L. REV. 677 (1995).

always just a transformation of an existing work.[130] Making a derivative—producing a movie based on a novel, for example—transforms the work from text to video and from the book marketplace to the audiovisual one. Neither of these transformations are fair uses of a work, however, as Congress indicated in the act establishing the original author as the owner of derivatives.[131] Specifically, under the statute, "[a] 'derivative work' is a work based upon one or more preexisting works, such as a translation, musical arrangement, dramatization, fictionalization, motion picture version, sound recording, art reproduction, abridgment, condensation, or any other form in which a work may be recast, *transformed*, or adapted."[132] Consequently, looking for a "transformation" as an indicator of fair use does not function appropriately as it is more directly indicative of something far larger: the derivative. As the rights to a derivative unquestionably belong to the original author under the statute,[133] suggesting that they demonstrate fair use just because they are transformative is contradictory.

This is not to suggest that *Campbell v. Acuff-Rose Music Inc.*[134] was incorrectly decided at the macro level when it recognized that parody is a form of fair use. As discussed above, parody is a form of criticism and comment which is statutorily listed as the type of use that often is fair.[135] As the Court did not need to discuss whether "transformation," itself was a key factor in fair use analysis as Congress more directly indicated so in sections 106 and 107

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[130] Kienitz v. Sconnie Nation LLC, 766 F.3d 756, 758 (7th Cir. 2014).

[131] 17 U.S.C. § 106(2).

[132] *Id.* § 101 (emphasis added).

[133] *Id.* § 106(2); H.R. REP. NO. 94-1476, at 62 (1976), *as reprinted in* 1976 U.S.C.C.A.N. 5659, 5675 ("[T]o constitute a violation of section 106(2), the infringing work must incorporate a portion of the copyrighted work in some form . . . ").

[134] 510 U.S. 569 (1994).

[135] *See supra* Section III(B).

of the statute,[136] the transformation discussion in *Campbell* should be left as the dicta it is, particularly as it has not been helpful in deciding other cases.[137]

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[136] *Campbell*, 510 U.S. at 579.

[137] *See* Cambridge Univ. Press v. Patton, 769 F.3d 1232, 1261–63 (11th Cir. 2014) (converting books into electronic form is not transformative); Authors Guild, Inc. v. HathiTrust, 755 F.3d 87, 97 (2d Cir. 2014) (creating a searchable database of book extracts was transformative); Kienitz v. Sconnie Nation LLC, 766 F.3d 756, 758 (7th Cir. 2014) (refusing to use the transformative fair use defense as it is contradicted by § 106(2) of the statute); Murphy v. Millennium Radio Grp. LLC, 650 F.3d 295, 306 (3d Cir. 2011) (using unaltered photograph in a different way is not transformative); Bouchat v. Baltimore Ravens Ltd. P'ship, 619 F.3d 301, 308 (4th Cir. 2010) (finding a transformative use determines that the use is similar to those listed in § 107); A.V. v. iParadigms, LLC, 562 F.3d 630, 639 (4th Cir. 2009) (holding that an anti-plagiarism system was fair use despite it purpose of destroying students' market for papers); Perfect 10, Inc. v. Amazon.com, Inc., 508 F.3d 1146, 1165 (9th Cir. 2007) (a use is "transformative so long as the copy serves a different function than the original work."); Zomba Enters. v. Panorama Records, Inc., 491 F.3d 574, 582–83 (6th Cir. 2007) (adapting song into a Karaoke version is not transformative); Bill Graham Archives v. Dorling Kindersley Ltd., 448 F.3d 605, 609 (2d Cir. 2006) (using poster for educational purposes transformed it); Jacob Victor, *Utility-Expanding Fair Use*, 105 MINN. L. REV. 1887 (2021); Clark D. Asay, Arielle Sloan, & Dean Sobczak, *Is Transformative Use Eating the World?*, 61 B.C. L. REV. 905 (2020); Jiarui Liu, *An Empirical Study of Transformative Use in Copyright Law*, 22 STAN. TECH. L. REV. 163 (2019); Brian Sites, *Fair Use and the New Transformative*, 39 COLUM. J.L. & ARTS 513 (2016); Michael D. Murray, *What Is Transformative? An Explanatory Synthesis of the Convergence of Transformation and Predominant Purpose in Copyright Fair Use Law*, 11 CHI-KENT J. INTELL. PROP. 260 (2012); Laura A. Heymann, *Everything Is Transformative: Fair Use and Reader Response*, 31 COLUM. J.L. & ARTS 445 (2008); Diane Leenheer Zimmerman, *The More Things Change The Less They Seem "Transformed": Some Reflections On Fair Use*, 46 J. COPYRIGHT SOC'Y U.S.A. 251 (1998); Laura G. Lape, *Transforming Fair Use: The Productive Use Factor In Fair Use Doctrine*, 58 ALB. L. REV. 677 (1995).

2. *Subsection Two*[138]—**Google Appropriated Oracle's Java APIs Which was not Necessary as the Ability of Expressing a New Smartphone Operating System Could be done in Many Other Existing or Created Computer Languages**

> The declaring code at issue here resembles other copyrighted works in that it is part of a computer program . . . It is inextricably bound together with a general system, the division of computing tasks, that no one claims is a proper subject of copyright. It is inextricably bound up with the idea of organizing tasks into what we have called cabinets, drawers, and files, an idea that is also not copyrightable. It is inextricably bound up with the use of specific commands known to programmers, known here as method calls (such as java.lang.Math.max, etc.), that Oracle does not here contest. And it is inextricably bound up with implementing code, which is copyrightable but was not copied.[139]

Subsection two of the fair use provision requires a court to examine the "nature of the copyrighted work."[140] In *Google*, the nature of the work was not in dispute—it was part of a computer program.[141] Specifically, it was the API's names and organization, a core component of Oracle's Java programming language.[142] While there are certainly some limitations on the scope of copyright rights because of

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[138] 17 U.S.C. § 107(2) ("the nature of the copyrighted work").

[139] Google LLC v. Oracle Am., Inc., 141 S. Ct. 1183, 1201 (2021).

[140] 17 U.S.C. § 107(2).

[141] *Google*, 141 S. Ct. at 1190. The Court's confusion in stating that Java SE is a program that "uses" Java is telling as Java SE *creates* Java, it does not use it. *See* CORNELL & HORSTMANN, *supra* note 41, at 1-3.

[142] *Google*, 141 S. Ct. at 1191–94.

the nature of the computer programs,[143] they are otherwise comparable with other expressive works.[144]

The Court was right that what Google took was "inextricably bound up with" the "cabinets, drawers, and files" that Oracle had created.[145] Indeed, if using this three-part structure was all that Google took, it would not be necessary to examine the fair use defense, as the usage would be within the scope of § 102(b) as an idea and thus completely excludable from copyright protection.[146] The reality was, however, that Google took far more than this idea of splitting API names into "cabinets, drawers, and files," as Google also took the actual names that Oracle had expressed to identify each cabinet, each drawer, and each file, a total of approximately 11,500 names.[147]

Importantly, there was no computer-based requirement that mandated that these particular API names be used; instead, Google could have produced functional software with its own naming scheme.[148] The Court discussed, as an example, the API Oracle created with the

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[143] The idea expression dichotomy expressed in 17 U.S.C. § 102(b) is likely to find more ideas than would be found in a purely fictional work, but the expressive nature of a program predominates. *See supra* note 1.

[144] *See supra* note 1 and accompanying text. Consequently, the distinction made in *Stewart v. Abend*, 495 U.S. 207, 237 (1990), between factual and fictional works does not apply to computer programs. Computer programs are not factual works. *Id.*

[145] *Google*, 141 S. Ct. at 1201.

[146] 17 U.S.C. § 102(b). *See generally* Clifford, *supra* note 1, at 139–46.

[147] *Google*, 141 S. Ct. at 1191,1193. It should be noted that other courts have routinely recognized this distinction. *See* Mitel, Inc. v. Iqtel, Inc., 124 F.3d 1366, 1373 (10th Cir. 1997) (finding that "particular four-digit numbers" chosen can be protected by copyright); Toro Co. v. R & R Products Co., 787 F.2d 1208, 1212 (8th Cir. 1986) (holding that a particular part numbering system is copyrighted even though the idea of having part numbers is not). *See generally* Clifford, *supra* note 1, at 139–46.

[148] *See generally* Adrienne Bloss & J.A.N. Lee, *Subprogram,* in ENCYCLOPEDIA OF COMPUT. SCI. 1708 (Anthony Ralston et al eds., 4th ed. 2000).

name "java.lang.Math.max."[149] The computer does not require that this precise name be used; instead, any other name can be associated with the necessary operative code.[150] Another author (i.e., Google) of a set of APIs, therefore, could have called this function "comparisons.numbers.larger" (or "x.y.z." or potentially even just "bigger" as the name of any function is arbitrarily named by its programmer) and the computer would be able to perform the proper operation.[151] Consequently, the number of variations available for these APIs are immensely large.[152]

The real difference between *java.lang.Math.max* and *comparisons.numbers.larger* is that Oracle's version was popular.[153] Despite this, Java and its API remain artificially created expressions fixed in the form of a computer program as part of Oracle's copyrighted work, so their popularity does not make them fact.[154] At the bottom line, using the set of API names that Oracle had created was not necessary for any reason beyond appropriating Oracle's expression thousands of times.[155] All of this was done so that Google

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[149] *Google*, 141 S. Ct. at 1193.

[150] Bloss & Lee, *supra* note 148.

[151] *See* NIKLAUS WIRTH, ALGORITHMS + DATA STRUCTURES = PROGRAMS 280–91 (1976) (discussing how computer names or "vocabulary" is created and processed); CORNELL & HORSTMANN, *supra* note 41, at 57 (indicating that variable names in Java can be almost any string of characters but cannot start with a number or symbol other than "_" or "$").

[152] Clifford, *supra* note 1, at 134-35; Kershaw*, supra* note 1, at 6–7. The choices of names are effectively infinite as the names used are not required to have a meaning that humans will appreciate, although good programming techniques teach the opposite. *See, e.g.*, BRIAN W. KERNIGHAN & P.J. PLAUGER, THE ELEMENTS OF PROGRAMMING STYLE 15 (2d ed. 1978); C. WILLIAM GEAR, COMPUTER ORGANIZATION AND PROGRAMMING 132–33 (1969).

[153] *Google*, 141 S. Ct. at 1192 & 1194; *supra* Section III(A). If popularity provides a fair use justification, the owners of the copyrights to works as the *Harry Potter* or *Star Wars* series had best worry.

[154] *Google*, 141 S. Ct. at 1190.

[155] *Id.* at 1191.

could use Java and its APIs exactly as Oracle intended in creating the expression. Consequently, there is nothing in the nature of Oracle's API names that justifies a fair use finding.

3. *Subsection Three*[156]—Programmers Routinely Use Multiple Computer Languages (Existing and New) and are not Dependent on Oracle's Java to Create New Computer Programs

> Google's basic objective was not simply to make the Java programming language usable on its Android systems. It was to permit programmers to make use of their knowledge and experience using the Sun Java API when they wrote new programs for smartphones with the Android platform. In principle, Google might have created its own, different system of declaring code. But the jury could have found that its doing so would not have achieved that basic objective. In a sense, the declaring code was the key that it needed to unlock the programmers' creative energies. And it needed those energies to create and to improve its own innovative Android systems.[157]

The third fair use factor evaluates how much was copied, recognizing that more modest copying is likely to be less destructive to an author's reward than a more comprehensive appropriation.[158] This evaluation of the amount copied is done both quantitatively and qualitatively.[159] In other words, a copyist who takes everything, or who takes an essential kernel of a work is much less likely to be engaged in fair use.[160]

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[156] 17 U.S.C. § 107(3) ("the amount and substantiality of the portion used in relation to the copyrighted work as a whole").

[157] *Google*, 141 S. Ct. at 1205–06.

[158] 17 U.S.C. § 107(3).

[159] Harper & Row Publishers, Inc. v. Nation Enterprises, 471 U.S. 539, 564–66 (1985).

[160] *Id.*

The Court's discussion in *Google* of the quantitative aspect of the analysis seems appropriate,[161] but the qualitative aspect demonstrates the Court's ignorance about how computers work, including how computer languages such as Java (and its APIs) function. To start, the Court addressed the Oracle APIs as if they are unique and critical for everyone to use.[162] In probability, the Court heard that Java was a "computer language" and concluded that it worked like English, Spanish, or other natural means of human communication.[163] Factually, however, Java and its APIs are merely computer programs written by human authors to make it easier to develop additional programs.[164] This is not unique, as there have been over a thousand computer languages created throughout the short history of computer processing.[165] Unlike a natural language which is not subject to copyright, Java and its APIs are the result of an author's creative expression that has been fixed in a perceivable, tangible form and are therefore protectable.[166]

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[161] *See Google*, 141 S. Ct. at 1204–05.

[162] *Id.* at 1205 ("the declaring code was the key that it needed to unlock the programmers' creative energies").

[163] *See* Mark Fischetti, *Ro: A Universal Language*, SCI. AM., July–Aug. 2023 (distinguishing between a human authored language, "Ro," and a naturally evolving language, "English"), https://www.scientificamerican.com /article/50-100-150-years-ago-july-2023/ [https://perma.cc/NYF6-82PB].

[164] *See supra* Section III(A).

[165] *See* Jean E. Sammet, *Appendix VI*, *in* ENCYCLOPEDIA OF COMPUT. SCI. 1937, 1937 (Anthony Ralston et al. eds., 4th ed. 2000) (establishing that there have been "over 1,000 high-level implemented languages"). It should be noted that this process has not stopped, as newly created computer languages have been developed since Ms. Sammet wrote the Appendix, e.g., Python, one of the most popular languages today. *See* Shayna Joubert, *The 10 Most Popular Programming Languages to Learn in 2023*, Northeastern University Graduate Programs (June 18, 2020), https://graduate.northeastern.edu/resources/most- popular-programming -languages/ [https://perma.cc/VZT8-B2LV].

[166] 17 U.S.C. § 102(a); *See supra* note 1.

What Google appropriated were the names given to the approximate 11,500 APIs that Oracle had developed and the hierarchical organization of the APIs which makes them easier to find.[167] To determine if this is an essential kernel of Oracle's work, another short hypothetical from *Harry Potter* will clarify the discussion:

> Suppose an author decides to write a novel about witches and warlocks. As the first step in this project, the author chooses to use the names "Harry Potter," "Hermione Granger," and "Ron Weasley" for the three principal characters and uses the rest of J.K. Rowling's characters—all 160 plus of them—as secondary participants.[168] Other than copying the names and the basic role each plays in the stories, the second author rewrites the remaining material.

If a court is called upon to evaluate the copyist's use of J.K. Rowling's characters in this way, it will almost certainly determine that the third factor suggests an unfair use.[169] In other words, by taking the names and using them in a similar way, a core aspect of Ms. Rowling's work has been appropriated.

Factually, the API names that Google took are very similar to the character names in the *Harry Potter* books. Like Ms. Rowling's fictional names, Oracle's API names are arbitrary.[170]   In almost all programming languages, a

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[167] Google LLC v. Oracle Am., Inc., 141 S. Ct. 1183, 1191 (2021).

[168] *Harry Potter Characters*, FANDOM, (last visited July 24, 2023), https://heroes-and-villain.fandom.com/wiki/Category:Harry_Potter_characters [https://perma.cc/3987-SQ48].

[169] *Cf.* Nichols v. Universal Pictures Corp., 45 F.2d 119, 121 (2d Cir. 1930) (L. Hand, C.J.). As the court stated, "[i]t follows that the less developed the characters, the less they can be copyrighted; that is the penalty an author must bear for marking them too indistinctly." *Id.* This, of course, also suggests the opposite and the more developed the characters are, the more likely they are to be copyrightable. DC Comics v. Towle, 802 F.3d 1012, 1019 (9th Cir. 2015).

[170] *See supra* pp. 486–88.

programmer has complete power over the name of any variable or subprogram (such as APIs).[171] In accordance with recommended practices in computer science, programmers attempt to choose names that suggest the role their object will play within the program being developed,[172] but the actual choice of names by the programmer represents creative choices by them for each name as a descriptor for what its associated function will do.[173] For the 11,500 Java APIs, each name was chosen because Oracle's programming team determined that the choice (and its placement within the organizational structure it had also created) would best serve the interests of future users of Java.[174]

Consequently, the appropriation of all the names from a prior work is unlikely to be fair since the qualitative essence of the work follows the names. Google effectively acquired Oracle's Java, particularly as it also obtained the hierarchy that was used to organize the APIs. Just as would be true if all the characters' names from *Harry Potter* were taken, thus placing the reader at Hogwarts, taking all the APIs' names along with the organizing structure places the programmers in Oracle's Java.

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[171] KERNIGHAN & PLAUGER, *supra* note 152, at 15-16; CORNELL & HORSTMANN, *supra* note 41, at 57.

[172] KERNIGHAN & PLAUGER, *supra* note 152, at 15-16.

[173] *See supra* note 1.

[174] Ralph D. Clifford, *Random Numbers, Chaos Theory and Cogitation: A Search for the Minimal Creativity Standard in Copyright Law*, 82 DENVER L. REV. 259, 295–96 (2004) (establishing that making choices among expressive possibilities is the foundation of *Feist* creativity); WIRTH, *supra* note 151 (discussing the importance of the other aspects of a computer program beyond writing its algorithms such as variable name selection).

4. *Subsection Four*[175]**—The Market and Value of Oracle's Copyright Interest has been Significantly Decreased**

The Court's analysis of the fourth fair use factor is particularly troubling. As expressed by Congress, the court is to examine "the effect of the use upon the potential market for or value of the copyrighted work."[176] The purpose of this examination is to make sure that the fundamental operation of the Copyright Act—the granting of a limited monopoly to an author to encourage authors as a class to produce more works[177]—is maintained. Consequently, the focus of this fourth provision needs to be exclusively on determining how damaging the fair use would be to the copyright owner.[178] Although this analysis should not be done rigidly, as a practical matter, this subsection expresses one side of the fair use balance with the other side being evaluated based on the first three subsections of the fair use provision.[179] Further, it is important to remember that the statute addresses "*potential market ... or value*"[180] impact rather than actual loss, and

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[175] 17 U.S.C. § 107(4) ("the effect of the use upon the potential market for or value of the copyrighted work").

[176] *Id.*

[177] Mazer v. Stein, 347 U.S. 201, 219 (1954) ("The economic philosophy behind the clause empowering Congress to grant patents and copyrights is the conviction that encouragement of individual effort by personal gain is the best way to advance public welfare through the talents of authors and inventors in 'Science and useful Arts.' Sacrificial days devoted to such creative activities deserve rewards commensurate with the services rendered.").

[178] *Id.*

[179] *See, e.g.*, Harper & Row Publishers, Inc. v. Nation Enterprises, 471 U.S. 539, 566–67 (1985) ("Fair use, when properly applied, is limited to copying by others which does not materially impair *the marketability of the work which is copied*.") (citation and internal quotation marks omitted) (emphasis added)). *See generally* Christina Bohannan, *Copyright Harm, Foreseeability, and Fair Use*, 85 WASH. U.L. REV. 969, 970 (2007) (noting that the analysis of "harm" under the fourth fair use factor is being "obscure[d]" by recent court decisions).

[180] 17 U.S.C. § 107(4) (emphasis added).

does not limit the analysis only to the conduct of the alleged infringer, as "one need only show that if the challenged use should become widespread, it would adversely affect the *potential* market for the copyrighted work."[181]

In specific terms, therefore, the fourth fair use analysis is concerned about Oracle's potential injury both from Google's conduct and from similar conduct from future actors. In the *Google v. Oracle* opinion, however, the Court failed to do this for two reasons. First the Court misapplied the rule in subsection four to examine the potential loss suffered by others rather than Oracle. Second, the Court's more direct analysis was factually inaccurate as it again misunderstood computer technology. Each of these will be discussed in turn.

> a. *The Fair Use Balance Compares the Importance of the Use Made Against the Loss Likely to be Suffered by the Copyright Owner if the Use Becomes Commonplace*

> Further, we must take into account the public benefits the copying will likely produce. Are those benefits, for example, related to copyright's concern for the creative production of new expression? Are they comparatively important, or unimportant, when compared with dollar amounts likely lost (taking into account as well the nature of the source of the loss)?[182]

This statement from the Court is quite extraordinary. When the past decisions of the Court on fair use are examined, there are no hints that the fourth factor requires a

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[181] *Harper & Row*, 471 U.S. at 568 (quotation marks and citation omitted); Sony Corp. of America v. Universal City Studios, Inc., 464 U.S., 417, 451 (1984).
[182] Google LLC v. Oracle Am., Inc., 141 S. Ct. 1183, 1206 (2021).

balancing between the costs to the copyright owner and the public benefits to be had.[183] As the Court held in *Campbell*:

> [The fourth fair use factor] requires courts to consider not only the extent of market harm caused by the particular actions of the alleged infringer, but also whether unrestricted and widespread conduct of the sort engaged in by the defendant . . . would result in a substantially adverse impact on the potential market for the original.[184]

Before *Google*, the Court has consistently—and exclusively—focused the fourth factor analysis on the potential harm that the fair use would cause the copyright holder.[185]

When the alternate approach stated in Google is examined, it seems to be made out of whole cloth, as even the Second Circuit opinion that the Supreme Court cited as support of its argument does not do so.[186] In *MCA v. Wilson*, the Second Circuit suggested that a smaller economic harm being suffered by the copyright holder would lessen the importance of the public interest need to support a fair use finding.[187] However, the Circuit did not state the opposite: that a larger public interest would lessen the importance of the economic injury suffered by the copyright holder.[188] All the *MCA* court acknowledged was that a smaller harm to the

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[183] Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569, 590 (1994); *Harper & Row,* 471 U.S. at 566–67; *Sony Corp.*, 464 U.S. at 451.)

[184] *Campbell*, 510 U.S. at 590 (citations and internal quotation marks omitted).

[185] *Id.* at 590. *Accord Harper & Row,* 471 U.S. at 566; *Sony Corp.*, 464 U.S. at 451; Andy Warhol Found. for the Visual Arts, Inc. v. Goldsmith, 598 U.S. 508, 551 (2023).

[186] *Google*, 141 S. Ct. at 1206 (citing MCA, Inc. v. Wilson, 677 F.2d 180, 183 (2d Cir. 1981)).

[187] 677 F.2d 180, 183 (2d Cir. 1981) ("The less adverse effect that an alleged infringing use has on the copyright owner's expectation of gain, the less public benefit need be shown to justify the use.").

[188] *Id.*

copyright holder tips the balance of the other fair use factors in the direction of a fair use finding.

Similarly, there is nothing in the fourth subsection of the fair use statute that indicates that the scope of the public interest is relevant to the analysis. The statute requires "the effect of the use upon the potential market for or value of the copyrighted work" to be examined.[189] The focus of the statute is thereby unequivocally on the value of the copyright holder's interest and whether the holder's market is likely to be adversely affected.[190]

Fundamentally, copyright law is based on the fact that obtaining a copyrighted product will be more costly for the consumer.[191] As the owner of the copyright can decide how many copies (if any) can be produced, how they will be initially distributed, whether derivative works will be written, and whether public performances and displays will occur,[192] the cost to the work's consumer is typically higher than it would be for public domain materials.[193] Since these increased costs are imbedded into the copyright system, they cannot then be considered as something that makes fair use more probable without engaging in defective logic.[194] By analogy, does fair use allow a law student to photocopy a casebook by claiming that the publisher sells it at too high of a price? The answer here must be no, as using the costs imposed by the copyright system as something that prevents its operation through fair use introduces a destructive circle into the law where copyright will extinguish itself.

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[189] 17 U.S.C. § 107(4).

[190] *Id.*

[191] Paul Heald, Kristofer Ericksond, & Martin Kretschmer, *The Valuation of Unprotected Works: A Case Study of Public Domain Images on Wikipedia*, 29 HARV. J.L. & TECH. 1, 19–21 (2015).

[192] 17 U.S.C. § 106.

[193] Heald et al., *supra* note 191.

[194] Google LLC v. Oracle Am., Inc., 141 S. Ct. 1183, 1206 (2021).

That raises the ultimate question. Why is the Court examining the purported losses the public will face when the public interest was fully explored in the analysis of the first fair use factor? This doubling-up on the good-of-the-public analysis seems designed to make fair use almost certain. There is no history of doing this analysis this way nor a logical reason for the change in the Court's opinion, so we are left wondering what motivated the Court.[195]

> ### b. A Formerly Viable Product, Oracle's Java, is now of Significantly Less Value as are Many (Most?) Other Popular Computer Programs

> As to the likely amount of loss, the jury could have found that Android did not harm the actual or potential markets for Java SE. And it could have found that Sun itself (now Oracle) would not have been able to enter those markets successfully whether Google did, or did not, copy a part of its API. First, evidence at trial demonstrated that, regardless of Android's smartphone technology, Sun was poorly positioned to succeed in the mobile phone market.[196]

Despite what the Court said, *Google v. Oracle* is not a case about mobile phones; instead, it was a case about the

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[195] *Cf.* Mossoff, *supra* note 40 (discussing possible reasons for the decision in *Google*); H.R. 927, 118th Cong. (2023) (proposing the "Supreme Court Ethics Act"); S. 325, 118th Cong. (2023) (same); H. Res. 402, 118th Cong. (2023) (encouraging the Supreme Court to adopt a code of conduct); Michael J. Gerhardt, *Supreme Myth Busting: How the Supreme Court Has Busted Its Own Myths*, 2023 WIS. L. REV. 603, 621–27 (2023) (discussing the lack of ethical rules for Supreme Court justices); Charles Gardner Geyh, *The Architecture of Judicial Ethics*, 169 U. PA. L. REV. 2351, 2353–54 (2021) (same); Michael Ponsor, *A Federal Judge Asks: Does the Supreme Court Realize How Bad It Smells?*, N.Y. TIMES, July 16, 2023, at SR4, https://www.nytimes.com/2023/07/14/opinion/supreme-court-ethics.html?searchResultPosition=5 (same) [https://perma.cc/B6NP-24J9].

[196] *Google*, 141 S. Ct. at 1206.

appropriation of a computer language or, more particularly, a language's APIs.[197] Oracle expended considerable creative and intellectual effort to express and organize Java, including a set of APIs that could be used with it.[198] A work of authorship was created with the expressive creativity needed.[199] Moreover, it was properly fixed and perceivable in a tangible medium of expression.[200] Consequently, the APIs—and more broadly Java—are protected by copyright.[201]

For Google to be able to create and market a smartphone, it needed an operating level software for the device.[202] Google wanted to make it easier for its programmers to create new code and produce this new software, so a substantial portion of Oracle's copyrighted computer language, Java, was taken – particularly the names and organizational structure of the Java APIs.[203] Importantly, the purpose of Google's copying was to fulfill the exact function for which Java and its APIs had been expressed—engaging in programming.[204] In other words, Google's use of the taken APIs was to develop new code, in the exact market where Oracle participated with its Java language. Consequently, the fact that Oracle was not positioned to enter the smartphone market is completely

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[197] *Id.* at 1191.

[198] *Id.;* Clifford, *supra* note 1. It is important to note that the APIs are a core part of the Java language. *See* CORNELL & HORSTMANN, *supra* note 41, at 24–25 (listing the original Java directory tree).

[199] Feist Publications, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 345-46 (1991); *See* Clifford, *supra* note 1; Clifford, *supra* note 174.

[200] 17 U.S.C. §§ 102(a) & 101 (defining "created," "fixed," and "computer program").

[201] *Id.* § 102(a).

[202] *Android Operating System*, BRITANNICA (last updated May 18, 2023), https://www.britannica.com/technology/Android-operating-system, [https://perma.cc/5AK7-7FRE].

[203] Google LLC v. Oracle Am., Inc., 141 S. Ct. 1183, 1193 (2021).

[204] *Id.*

irrelevant as its marketplace was in creating a computer language that makes creating additional programs easier.

If this *Google v. Oracle*-type of copying becomes commonplace as the law assumes,[205] Oracle's reward for having successfully created Java will disappear. Why would anyone pay Oracle for Java when it has been found to be fair use to just take it? In reality, this type of copying is not something that a small market entity could do because of the cost to re-code the APIs,[206] but most of the major players—Google, Apple, Microsoft, etc.—can now effectively force a smaller player like Oracle out of the software market.[207] Further and critically, future programmers are unlikely to expend any effort to develop new computer languages as, again, the fair use defense as it has been interpreted here would deny these developers of any copyright law-based reward.

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[205] Harper & Row Publ., Inc. v. Nation Enter., 471 U.S. 539, 568 (1985).

[206] *See* Mahipal Nehra, *API Development Cost in 2023,* DECIPHER ZONE (Apr. 12, 2023), https://www.decipherzone.com/blog-detail/api-development [https://perma.cc/ZZK7-H2ZV] ("API development cost in 2023 can be from $1000 to $35,000 [each] depending on the complexity, security, features, and documentation."). The cost cited in the Nehra article is per API, so an estimate of rewriting the APIs in the Google case would be between $11,500,000 and $402,500,000. *See Google*, 141 S. Ct. at 1204-05 (multiplying the 11,500 APIs reproduced by the estimated minimum and maximum cost).

[207] *Largest Tech Companies by Market Cap*, COMPANIESMARKETCAP, https://companiesmarketcap.com/tech/largest-tech-companies-by-market-cap/ [https://perma.cc/CJY5-MSJQ] (last visited Feb. 2, 2024) (listing Oracle below the named companies based on market capitalization).

IV. CONCLUSION: IF GOOGLE'S COPYING OF ORACLE'S SOFTWARE IS FAIR USE, COMPUTER SOFTWARE HAS BEEN EXCLUDED FROM THE COPYRIGHT ACT

Recognizing the technological obsolescence of the Copyright Act of 1909, Congress crafted what became the Copyright Act of 1976 using a multi-decade process of considering where the copyright balance between creators and users should be.[208] The Register of Copyrights conducted this process, so the balance was struck mostly outside of congressional hearing rooms and offices.[209] The Register drafted a replacement copyright law through "the extensive use of outside experts and representatives of copyright interests . . . in the initial drafting and formulation of the copyright law revision proposals."[210] Once this collaborative proposal for a new Copyright Act was created in 1965, it was subject to further debate over the next decade before being adopted in 1976.[211]

Among the areas addressed throughout this process was how computer software should be treated.[212] The ultimate congressional solution is unambiguous: computer programs are to be considered literary works under the statute and are to be treated in the same way as other such works.[213] As with any other statute drafted as a compromise

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[208] H.R. Rep. No. 94-1476 at 47–50 (1976), *as reprinted in* 1976 U.S.C.C.A.N. 5659, 5660–63; HOWARD B. ABRAMS & TYLER T. OCHOA, THE LAW OF COPYRIGHT §§ 1:29–1:33 (Oct. 2022 update).

[209] ABRAMS & OCHOA, *supra* note 208, at § 1:30.

[210] *Id.*

[211] *Id.* § 1.33.

[212] *See* H. Rep. No. 94-1476 at 47 *as reprinted in* 1976 U.S.C.C.A.N. at 5660.

[213] *Id.* at 54 *as reprinted in* 1976 U.S.C.C.A.N. at 5667 ("The term 'literary works' . . . includes . . . computer programs to the extent that they incorporate authorship in the programmer's expression of original ideas, as distinguished from the ideas themselves."); *id.* at 116 *as reprinted in* 1976

among positions, some—both in society[214] and on the Supreme Court[215]—found themselves in the minority position; indeed, reading the opinion in *Google v. Oracle* suggests strongly that a majority of the Justices are in disagreement with the compromise expressed in the 1976 Act. Not having the votes (one has to assume) for a frontal assault that would declare computer code uncopyrightable,[216] the Court expanded the fair use defense so that once a piece of software becomes popular, any attempt to prevent others from duplicating that software will fail. In other words, for computer programs, we do not need to

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U.S.C.C.A.N. at 5731 ("With respect to the copyright-ability of computer programs, the ownership of copyrights in them, the term of protection, and the formal requirements of the remainder of the bill, the [1976 Copyright Act] would apply."). It is true that the definition of "computer program" was not added to the Copyright Act until 1980. An Act to Amend the Patent and Trademark Laws, Pub. L. No. 96-517, § 10(a), 94 Stat. 3015, 3028 (1980). This amendment was part of the recommendations of the National Commission on New Technological Uses of Copyrighted Works, commonly referred to as CONTU. CONTU, FINAL REPORT 1 (1979). CONTU did not examine whether computer programs should be copyrighted; instead, its charge was to examine how all copyrighted works, including computer programs, could be affected by the work's use in conjunction with the computer technology already in use in the 1970s. *Id.* CONTU's few recommendations that directly affect computer software copyrights are found in 17 U.S.C. § 117, which provide narrow limitations on program copyrights to allow back-ups and limited alteration rights for software. *Id.* at 12.

[214] *See, e.g.*, John Hersey, *Dissent on CONTU's Computer Program Report*, CONTU, *supra* note 213, at 27–28.

[215] *See* Mossoff, *supra* note 40.

[216] Google LLC v. Oracle Am., Inc., 141 S. Ct. 1183, 1190 (2021). This frontal attack would have to find that computer code lacks creativity so as not to be a writing under *Feist.* U.S. 340, 346–47, 362 (1991). This would have been difficult for the Court as the scientific evidence that programming is highly creativity activity was submitted to the Court. Brief for Interdisciplinary Research Team on Programmer Creativity as Amici Curiae Supporting Respondent, Google LLC v. Oracle America, Inc., 141 S. Ct. 1183 (2021) (No. 18-956). *See supra* note 1.

worry about the copyright dog; instead, all that is important is the fair use tail.

Hopefully, future courts will recognize that very specific facts were involved in *Google v. Oracle*, since it was a case about smartphones and the software that is necessary for them to operate.[217] To preserve a marketplace for other software, the fair use defense used in *Google* should be limited to the specific facts involved.[218] In particular, the Court repeatedly stressed that the use of the software was fair in the creation of a new brand of smartphone.[219] Subsequent courts should accept this limitation and apply the fair use defense as Congress expressed it in all cases not involving this one technology.

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[217] *Google*, 141 S. Ct. at 1190.

[218] Harper & Row Publishers, Inc. v. Nation Enters., 471 U.S. 539, 560 (1985) ("'each case raising the question [of fair use] must be decided on its own facts'") (quoting H. Rep. No. 94-1476 at 65 (1976), *as reprinted in* 1976 U.S.C.C.A.N. 5659, 5679)).

[219] *Google*, 141 S. Ct. at 1190–91, 1202–07.