



Google v. Oracle: The Recent Supreme Court Decision, How it Highlights the Inadequacies of Shoehorning New Technology into Intellectual Property Law, and Possible Solutions

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GOOGLE V. ORACLE: THE RECENT SUPREME COURT DECISION, HOW IT HIGHLIGHTS THE INADEQUACIES OF SHOEHORNING NEW TECHNOLOGY INTO INTELLECTUAL PROPERTY LAW, AND POSSIBLE SOLUTIONS

*Claire Price**

I. INTRODUCTION

Is anything ever actually original? As Judge Learned Hand identified in *Nichols*, works build off of common tropes and archetypes.¹ It is the artist's expression of those ideas, which copyright protects. Take the case of *Nichols*, for example, where the court was faced with two stories, detailing the plight of two star-crossed lovers, juxtaposed by their different religious and ethnic roots, set in modern New York.² Now ask yourself, does it seem logical to allow one author monopoly over this story, and not the other? Or, are there certain ideas, even if they are strung together in the same way, which must be left within the public domain for multiple authors to express how they please? The court decided the latter. This makes sense in light of the Copyright and Patent Clause of the Constitution, which specifically enumerates that the purpose of the congressionally granted monopoly is "To promote the progress of science and useful arts."³ It would not promote progress to foreclose common themes and ideas to all others who may endeavor to express them. Then, what if the expression itself is in question? For example, if the ideas are presented in a more functional, rather than artistic, manner. That is what the Supreme Court was faced with in the case of *Google v. Oracle*, where certain lines of code that, to some extent, served both a functional purpose and represented the creativity of its authors, was faced with two questions: One, whether the code is copyrightable at all, or an uncopyrightable, idea, process, or function; and two, if the code is

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¹ *Nichols v. Universal Pictures Corp.*, 45 F.2d 119, 122 (2d Cir. 1930).

² *Id.* at 120.

³ U.S. Const. art. I, § 8, cl. 8.

protected under copyright, whether Google's use of said code qualified as a fair use, shielding it from liability from infringement.

Google v. Oracle demonstrates the heart of the issue of the law attempting to reconcile its legal precedent with continually arising new technological issues: The application of copyright and patent law to modern technological problems appears to be inadequate in several aspects.⁴ For one, *Google v. Oracle* arose ten years ago. The decision from the Supreme Court originates from a lengthy and scattered procedural history that reflects the judicial inefficiencies of attempting to apply copyright and patent law to current issues. Furthermore, the product at issue, the java programming platform, is virtually irrelevant now compared to new programming languages that have developed since, all of which relied on the previously unestablished principle of use of such code qualifying as fair use. This raises the question of if the historical principles and rules of copyright and patent law should be applicable at all to the emergence of new technology and its business practices, or whether new alternatives should be devised.

The Court in *Google v. Oracle* struggled to apply copyright doctrine to the code at issue, and ultimately chose not to address the issue of whether the code is copyrightable at all.⁵ The majority assumed copyrightability and moved to fair use, which Justice Thomas was quick to adjudge as a mistake that distorted the core of the majority's analysis in his dissent.⁶ The majority concluded that Google's use was fair use, while the dissent disagreed.⁷ Both sides used the exact same factors in order to analyze whether the use of the code in question was fair use, yet each came to completely different conclusions.⁸

Attempting to apply legal rules which were formulated on vastly different types of works in comparison to the new works

⁴ *Google LLC v. Oracle America, Inc.*, No. 18-956, slip op. (U.S. April 5, 2021).

⁵ *Id.*

⁶ *Id.*

⁷ *Id.*

⁸ *Id.*

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presented by technology today, is becoming an issue ever-more present in the legal world. A related example also within the bounds of both patent and copyright law, is the issue of Artificial Intelligence. AI continues to create more problems for the courts than can be solved. For example, a Circuit Judge in Virginia recently held that AI is not an inventor under patent law.⁹ New technology like AI presents even further paradoxical issues that will continue to press on the judicial system as the technology continues to evolve. Questions that will inevitably be before the court. Questions such as: Can or should AI be an author or inventor within the meaning of copyright or patent law? Some would argue yes. Facebook's previous head AI researcher would seem to be a proponent of extending authorship to AI, "Our intelligence is what makes us human, and AI is an extension of that quality." Yet this could also be seen to mean that the human is the author of the AI and the AI is merely an extension of it. Again, this demonstrates just a small facet of the issue. For each problem that appears, twenty new questions arise. For each new problem that arises in the legal world due to rapid technological advancement, twenty new ones seem to appear.

Therefore, it is important to understand and analyze the policy decisions, and in Part II of this note we will discuss the legal history, and the rules behind copyright and patent law as a basis for understanding the opinion. Part III will analyze the decision in depth in terms of both legal and policy concerns in the application of these antiquated principles to modern problems which will pivot into the analyzation and discussion of the stark differences between the majority and the dissent's outcome in terms of their respective applications of the categories of fair use. Finally, in Part IV we will dive into suggested alternatives and how the legal profession and legislature can adapt in order to properly address these issues with the efficiency and accuracy that is necessary for the further development of tech law in order to

⁹ Susan Decker, *Only Humans, Not AI Machines, Get a U.S. Patent, Judge Says*, Bloomberg (Sept. 3, 2021) <https://www.bloomberg.com/news/articles/2021-09-03/only-humans-not-ai-machines-can-get-a-u-s-patent-judge-rules>.

promote the protection and predictability of such protection for the benefit of authors and inventors.

II. BACKGROUND

A. *The Hurdles of Copyright Law*

At first glance, Copyright law can seem simple, however, there are a few limitations that have proven to be significant hurdles for the application of Copyright law to new technology. For example, one issue presented in *Google v. Oracle* was whether the code in question qualified as copyrightable subject matter. Copyright does not extend to, “any idea, procedure, process, system, method of operation, concept, principle, or discovery.”¹⁰

Ideas and facts are not copyrightable subject matter. Facts can be subject to a very narrow exception. That is, when the author or creator arranged and selected the facts in a particular way that demonstrates a level of artistic expression. This can also be an issue in technology cases involving copyright law and is itself related to Merger.

Merger refers to when an idea merges with its expression and is only capable of expression in one, or limited number of ways. If an idea falls within the Merger doctrine, then it is not copyrightable. Analysis of the code at issue in this case presented a merger problem which called into question the code’s copyrightability.¹¹

The four factors for Fair Use, articulated by the Court in *Google v. Oracle* and as codified in § 107 of the Copyright Act, are as follows: (1) The character of the defendant’s use; (2) The nature of the plaintiff’s work; (3) The amount and substantiality of the portion used; (4) The subsequent market effects.¹² The character of

¹⁰ 17. U.S.C. § 102(b).

¹¹ *Google* No. 18-956, slip op. at 1213.

¹² 17 U.S.C. § 107.

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the defendant's use focuses on whether the work was transformative of the work from which it copies, or commercial.¹³ If it is transformative, then it favors the finding of fair use. The nature of the work turns on whether the work is functional, or a creative expression. Functionality will also weigh the scales toward fair use, while creative expression will lead to the opposite conclusion. The amount of the portion used may seem intuitive, however, it can be deceiving. While the smaller the portion copied may point towards fair use, this factor can change based on whether that section goes to the heart of the original work at issue. Finally, the subsequent market effects turn on whether the copied product serves as a market substitute, thus affecting the original author's ability to benefit commercially from the work. This would go against a finding of fair use.

The ultimate policy goals and rules from which copyright law finds its origins, stems from the Copyright Clause of the Constitution, which states that Congress shall have the power, "To promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries."¹⁴ Therefore, any analysis involving copyright law will also have to ask the necessary question: will this decision effectuate an outcome that aligns with the ultimate goal of the copyright clause of the constitution, "To promote the progress of science and useful arts?"¹⁵

B. Google v. Oracle

In the case of *Google v. Oracle*, the decisions and analysis, in some ways, rested on how the lawyers and the judges chose to define the code at issue. Google copied lines of code from Oracle's API (application programming interface).¹⁶ An API is a software interface which allows a user to perform certain tasks. Imagine the API as an organized collection system of a library. Now imagine

¹³ *Google* No. 18-956 at 1218.

¹⁴ Article I, § 8, cl. 8.

¹⁵ *Id.*

¹⁶ *Google* No. 18-956 at 1186.

that each individual book in that library is a task (a “method” in the programming world), that is stored with like-tasks which form a “class” like a common genre of books. Imagine then, that these common genres of books are all stored in rooms of other similar genres or “classes.” These are called “packages.” The order of the organization of the library is therefore: package, class, and task. This organizational structure is referred to as an “SSO” (structure, sequence, and organization).¹⁷

For each task, there is an implementing code that tells the computer how to do that task. These are pre-written lines of code which can be hundreds of lines long, so programmers enter a command which matches the implementing code. This is known as the “declaring code.” The declaring code is another part of the API. In other words, think of the implementing code as the words within the book itself, instructing you, the computer, on how to do a task. The declaring code is the shortcut that the programmer, the avid reader at the library, uses in order to find that task, or the book itself. The code at issue is the declaring code.¹⁸

As we can see from the structure of the API, the issue of the copyrightability of the declaring code presents several issues. The code could arguably be a “procedure, process, system, method of operation” and thus not copyrightable.¹⁹ The code is also seemingly tied to the implementing code and API, which presents a merger problem. Furthermore, the declaring code could also be seen as something that is functional and not a creative expression by an author. Do you blame the majority for skipping the issue of copyrightability entirely? It is difficult enough to attempt to understand the underlying process of the API.

Ten years ago, Google acquired Android. In an attempt to market Android phones to more users, Google decided to create a platform in order to code in java (the popular coding language at the

¹⁷ *Id.* at 1191.

¹⁸ *Id.* At 1192.

¹⁹ 17 U.S.C. § 102(b).

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time) in order to incentivize coders to create applications for mobile use on the Android devices. To accomplish this task, Google coded its own platform, however, it copied a portion of Oracle's API. The rationale for copying this portion of the API was that it was essential to launch Google's new platform so that programmers could successfully code in java. To many, this was deemed to be a fair use of the material, that is, if the code in question was itself copyrightable. To just as many, it was not a fair use, but an infringement.

The Court continued with its history of deciding on the narrowest grounds possible by ignoring the question of copyrightability entirely. Instead, the majority focused on whether, assuming that the code is copyrightable, Google's use of the code fell within the Fair Use exception to infringement.²⁰ The Court ruled that it did. As we will discuss later, the majority and dissent come to completely different conclusions based on the analysis of the same four factors. When reading both of these opinions, they are each convincing, which further demonstrates why this case was so divisive among the tech and law communities alike, and the overall issues with the use of copyright and patent doctrine to modern technological issues.

C. The Future of Copyright Law: Plausible Alternative Solutions?

Compulsive licensing is one proposed solution to issues in both patent and copyright law.²¹ Under a compulsive licensing scheme, "[A] government allows someone else to produce a patented product or process without the consent of the patent owner or plans to use the patent-protected invention itself."²²

²⁰ *Google* No. 18-956 at 1200.

²¹ Mary L. Mills, *New Technology and the Limitations of Copyright Law: An Argument for Finding Alternatives to Copyright Legislation in an Era of Rapid Technological Change*, 65 CHI.-KENT L. REV. 307, 339 (1989).

²² World Trade Organization, *Compulsory licensing of pharmaceuticals and TRIPS* (2021), https://www.wto.org/english/tratop_e/trips_e/public_health_faq_e.htm

This scheme is not new and is part of the World Trade Organization's agreement on intellectual property and Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement which took effect in January of 1995. Under this regime, the patent or copyright owner is compensated for the use of their work while those who desire to use it are allowed to do so.

However, this scheme comes with its own problems. For one, it has been a struggle to incentivize companies to innovate via de facto compulsive licensing. Companies such as Apple are reluctant to allow others to use their software and the decision in *Google v. Oracle* now looms over other patent and copyright litigation. In the past, companies such as Apple have been concerned with their rights and abilities to have control over their work under a compulsory licensing scheme, and ensuring return on investment when prices are not set. Under the TRIPS Agreement "the right holder shall be paid adequate remuneration in the circumstances of each case, taking into account the economic value of the authorization", but it does not define "adequate remuneration" or "economic value".²³

There is also the FRAND license.²⁴ The goal of the FRAND license is to give the licensee reasonable terms, as opposed to a patent holder charging high royalty rates for use. A necessary compromise in a world where many technology companies hoard patents or are unwilling to relinquish their technology to possible competitors. A FRAND license is essentially a voluntary agreement between an industry group that sets "common standards in significant areas of invention to facilitate mediation between intellectual property owners and users."²⁵ The goal is to maximize efficiency in the industry both on the product side, by setting a common design for the devices in question that implements all the necessary technology, and on the legal side by providing patents to

²³ *Compulsory licensing of pharmaceuticals and TRIPS* (2021).

²⁴ "FRAND" stands for fair, reasonable, and nondiscriminatory. Srividhya Ragavan et al., *Frاند v. Compulsory Licensing: The Lesser of the Two Evils*, 14 *Duke Law & Technology Review* 83, 84 (2015).

²⁵ *Id.* at 87.

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those who need them without being extorted for unnecessary fees for advancements that the industry becomes increasingly reliant upon. This both encourages the patent owners to have their patented technology to be the standard while allowing for others to use these patents.²⁶ In return, the patent holders also receive royalties.

Other private agencies have been proposed in order to set compensation schemes for copyrighted and patented works.²⁷ This would be a medium between the compulsory scheme and one in which every desired user needs to seek out permission from the owner. Under this idea, referred to as a voluntary licensing scheme, owners may negotiate their own royalty scheme.²⁸ However, there is the question of whether this would actually solve the problem or create more. If the owner has to negotiate the royalty scheme with the agency or every user, this could create more burdens than benefits in concern to overall efficiency.

As we will see and further discuss, there are many more bureaucratic solutions such as a scheme involving independent agencies as above, or ones in which an owner would negotiate with the government to sell his rights for compensation.²⁹ Schemes such as these are referred to as “rewards for authors” schemes in which the monetary reward for authors is entirely separated from the property rights.³⁰ However, it may be argued that part of the reward and incentive is allowing the author and owner, and their subsequent estates or successors, to exercise control of the property rights. Overall, it is clear that there is no clear solution, but further incentives need to be put into place in order to strike the proper balance between providing the public with works that are freely available to be used in order to “promote the progress of science and useful arts” per the intention of the constitution, and to incentivize

²⁶ *Id.* at 88.

²⁷ Mary L. Mills, *New Technology and the Limitations of Copyright Law: An Argument for Finding Alternatives to Copyright Legislation in an Era of Rapid Technological Change*, 65 CHI.-KENT L. REV. 307, 336 (1989).

²⁸ *Id.*

²⁹ Lior Zeimer, *Rethinking Copyright Alternatives*, 14 INT'L J.L. & INFO. TECH. 137 (2006).

³⁰ *Id.*

current and new authors and creators to continue to create for the benefit of society as a whole.

III. ANALYSIS

A. *Legal History & Rules Underlying Copyright Law*

Copyright is founded on the Patent and Copyright Clause of the Constitution which states that Congress shall have the power “To promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries.”³¹ To qualify for copyright, there are three distinct elements an author must satisfy. The work must be created, original, and fixed in a tangible medium of expression.³² But what exactly is an “original” work of authorship? Original, as defined by the Supreme Court, means that the work was a result of independent creation of the author, as opposed to copied from another’s work, which has at least a modicum of creativity.³³

What exactly is a modicum of creativity?³⁴ This question was addressed in *Burrow Giles Lithographic Co. v. Sarony* which presented the question of whether photographs were protected under copyright law.³⁵ Giles argued that a photograph was not a writing produced by an author and therefore was not an original work of

³¹ U.S. Cons., art. I, § 8, cl. 8.

³² 17 U.S.C. § 102(b).

³³ “Original, as the term is used in copyright, means only that the work was independently created by the author (as opposed to copied from other works), and that it possesses at least some minimal degree of creativity.” 1 M. Nimmer & D. Nimmer, Copyright §§ 2.01[A], [B] (1990). *Feist Publications, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 111 S. Ct. 1282, 113 L. Ed. 2d 358 (1991).

³⁴ “To be sure, the requisite level of creativity is extremely low; even a slight amount will suffice. The vast majority of works make the grade quite easily, as they possess some creative spark, “no matter how crude, humble or obvious” it might be. *Id.*, § 1.08 [C] [1]. Originality does not signify novelty; a work may be original even though it closely resembles other works so long as the similarity is fortuitous, not the result of copying.” *Id.* at 1287.

³⁵ *Burrow-Giles Lithographic Co. v. Sarony*, 111 U.S. 53,56 (1884).

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authorship, but a copy of what already exists in real life.³⁶ The Court disagreed. It found that a photograph is an original idea due to the choices made by the photographer like the light, clothes, background, and other materials used in the creation of the photograph which evoke a feeling.³⁷ *Burrow Giles* is a hallmark case in Copyright law because it identifies the limits of copyright law, such as whether the work claiming protection was within the class of inventions which the constitution intended for Congress to protect with exclusive rights. The case also hints at the issue for which Copyright law is struggling to grapple with today: when is a combination of uncopyrightable materials copyrightable.

Copyright places express limits on copyrightable subject matter, “[i]n no case does copyright protection for an original work of authorship extend to any idea, procedure, process, system, method of operation, concept, principle, or discovery, regardless of the form in which it is described, explained, illustrated, or embodied in such work.”³⁸ The copyright cases involving code and programming often turn on the language of § 102(b).³⁹ Users of lines of code who have been accused of infringement often argue that the code in question is an uncopyrightable idea, procedure, process, system, or method of operation. There are notable exceptions to copyrightability not extending to facts. Expression of ideas and facts are copyrightable. Furthermore, compilations of facts if the selection, coordination, and arrangement of said facts are done in such a way to reflect expression, then it can fall on the side of thin copyright.⁴⁰ One of the key historical cases concerning this distinction is *Baker v. Selden*.⁴¹

Selden made a condensed ledger system that improved book-keeping in such a way that a month’s worth of data could be catalogued on a single page. Baker used a similar layout for the

³⁶ *Id.*

³⁷ *Id.* at 61.

³⁸ § 102(b).

³⁹ *Id.*

⁴⁰ *Feist*, 499 U.S. at 341.

⁴¹ *Baker v. Selden*, 101 U.S. 99, 25 L. Ed. 841 (1879).

same results but his overall arrangement was different from Selden's. Ultimately, this case turned on two fundamental doctrines: Blank Form Doctrine and Merger Doctrine. Blank form doctrine essentially says that one cannot copyright a blank form, or a method of conveying information. This stems from the overall purpose of the Copyright Clause of the Constitution, "To promote the progress of science and the useful arts."⁴² A method, process, fact (discovery) belongs to everyone for the benefit of society as a whole. Merger doctrine refers to where the idea merges with its expression.⁴³ Where there is only one, or very limited ways, of expressing an idea, then it cannot be protected by Copyright.⁴⁴ The doctrine is often implicated in cases involving code and in *Google v. Oracle* in reference to declaring code.

Overall, copyright protection is a delicate balancing act of the exclusive rights of authors weighed against the benefits that the author's works can bring to society. Congress wants to give authors exclusive rights in order to incentivize creation of new works. Why? Because it ties back to the underlying purpose of copyright as enumerated in the copyright clause of the constitution. We want to promote progress for the benefit of society as a whole. However, in order to ensure that benefit, all works must be exclusive only for a period of time thus eventually falling into the public domain for free distribution and use by the people. Until that time, authors and artists have rights that are exclusive to them that they may assign as they wish so that those works can still be used, while the authors earn the profit and other benefits that come from their hard work.

If the work at issue is found to be copyrightable, and the plaintiff shows that the defendant had copied, the burden then shifts to the defendant to show that an applicable defense to infringement applies. The most common defense, and the one applicable in

⁴² "[E]ven expression is not protected in those instances where there is only one or so few ways of expressing an idea that protection of the expression would effectively accord protection to the idea itself." *Kregos v. Associated Press*, 937 F.2d 700, 706 (2d Cir. 1991).

⁴³ *Id.*

⁴⁴ *Id.* at 706.

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Google, is Fair Use. The four main factors that courts must consider are enumerated in § 107: (1) The purpose and character of the use; (2) the nature of the copyrighted work; (3) the amount and substantiality of the portion used in relation to the copyrighted work; (4) the effect of the use upon the potential market value of the copyrighted work.⁴⁵ When a court is analyzing fair use, these four factors must be among the factors considered, however, congress intentionally left room for other factors to be considered. The preamble to § 107 also provides a non-exhaustive list of types of uses which constitute fair use, which courts regularly analyze to assess whether the use that is contemplated is within the scope of the uses that congress intended to protect.⁴⁶

Why provide a fair use defense? The answer is simpler than it may appear at first glance. One of the primary examples in the list of fair uses provided by congress is use for the purposes of teaching. Education is a main thread in fair use as it also includes scholarship and research. Such uses are clear examples of use that congress would like to incentivize in order to promote progress. Furthermore, if you were an author or a creator, if a teacher or scholar approached and asked permission to use your work for such purposes would you deny them? Most would say no. Another key policy consideration in copyright law is efficiency. If such uses are of the kind that most authors would approve of, it follows that those uses should be permitted, and offered protection under fair use. Fair use is designed to provide the proper balance in order to discern between those uses that are deemed to be legitimate uses of a copyrighted work and weed out those uses which are an infringement of an author's exclusive rights.

⁴⁵ 17 U.S.C. § 107.

⁴⁶ “Notwithstanding the provisions of sections 106 and 106A, the fair use of a copyrighted work, including such use by reproduction in copies or phonorecords or by any other means specified by that section, for purposes such as criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research, is not an infringement of copyright.”
Id.

In light of this, the issues, especially in concern to policy, in *Google v. Oracle* are clearer. Oracle invested the time and money in creating a programming language and platform for users which it would license and receive fees from amounting to substantial profits. Google wanted to implement this platform into its new mobile device venture. Oracle is rightfully concerned of the possible outcomes of Google copying portions of its code.

B. The Decision In Depth

i. The Majority Opinion

a. Copyrightability of Computer Programs

The issue of the copyrightability of the code at issue is one which emphasizes the tension between two statutory provisions of the Copyright Act. Congress expanded the reach of the Copyright Act to include computer programs in 1980. It added the definition of computer program as “a set of statements or instructions to be used directly or indirectly in a computer in order to bring about a certain result.” Under this definition, Oracle argues that computer code is a literary work that was intended to be protected under the Act. However, copyright explicitly prohibits protection from “any idea, procedure, process, system, method of operation, concept, principle, or discovery.” The Court does not attempt to reconcile these two provisions in order to come to a decision on the copyrightability of the declaring code at issue, but it ultimately does determine that code is copyrightable. “By defining computer programs in § 101, Congress chose to place this subject matter within the copyright regime. Like other protected works, that means that the owners of computer programs enjoy exclusive rights set forth in the Act . . . But that also means that exclusive rights in computer programs are limited like any other works.”⁴⁷

Herein lies the first problem. Although Congress attempted to rectify any question of copyrightability of programming, many

⁴⁷ *Google* No. 18-956, slip op. at 1199.

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questions were left unanswered. The lack of clarity may have been done with intention. Congress prefers to leave room for interpretation in matters that are still undergoing development, or in areas of law where the decisions may depend heavily on the facts of the case. One such example is fair use. Fair use only mandates that the courts analyze those four factors enumerated in the statute, however, it is explicit that the court may continue to develop the doctrine of fair use and consider additional factors. Another possibility is far simpler: Congress simply did not know enough about computer programming in order to establish a bright line rule concerning its copyrightability. The same can also be said for the majority's decision to sidestep the question of copyrightability. The language of the opinion clearly acknowledges that code is copyrightable, however, it is hesitant whether for lack of understanding or with the intention to leave leeway for future decisions, to create a precedent that may restrict technological progress.

b. Nature of The Plaintiff's Work

Instead, the majority opinion sidesteps the question of copyrightability altogether. Thus, the question analyzed is assuming that the code at issue is copyrightable, whether or not Google's use of said code constitutes a fair use. The specific packages copied were essential for the use of the Java language, otherwise, Google coded its own platform. Of fair use Justice Breyer says, "the concept is flexible, that courts must apply it in light of the sometimes conflicting aims of copyright law, and that its application may well vary depending upon context."⁴⁸ The analysis begins, oddly enough, with the second factor of fair use: the nature of the Plaintiff's work. The Court ultimately decides that this factor favors fair use. First, the declaring code is an idea, which is not copyrightable subject matter capable of protection under the Act. The declaring code is essentially a method of organizing tasks for a programmer to call upon (the commands). In other words, although the code enables the coder to use the platform and effectuate a certain result, it does not itself create that result, but it is a mechanism in the cog of the

⁴⁸ *Id.* at 1197.

machine that helps to produce that result. The declaring code, says the Court, is “inextricably bound” with the system.⁴⁹ Sound familiar? According to the majority, the idea merges with its expression. Thus, the declaring code is an idea which is not copyrightable, but even if it were the expression of an idea (which copyright protects) the idea merges with expression and is therefore disqualified by merger.

However, Justice Breyer does recognize that the declaring code is not completely devoid of creativity. The Court references the witness testimony below which stated that writing implementing programs involves a different kind of creativity. Programmers of implementing code bound by the confines of physical limits of computers. Processing power, battery life, and the time it takes to execute tasks. All of which are necessary components. Despite this creativity, however, the Court still concludes that, unlike other programs, the use is bound with the “general task division and organization.”⁵⁰ The merger problem presented by the declaring code, leads to the conclusion that the code at issue falls farther from the core of copyright. Since the code lies on the thinner side of copyright, reasons the Court, the fear that applying fair use to this case would undermine the general copyright protections that Congress afforded to computer programs is easily remedied. Therefore, this factor favors fair use.

c. The Purpose and Character of The Use

Secondly, the Court looks to the purpose and character of the Petitioner’s use. The threshold question that the courts consider under this factor is whether or not the use in question is “transformative.” A work is transformative when the copying adds “something new with a further purpose or different character.”⁵¹ The rule, in its totality, is whether the use can be “reasonably

⁴⁹ *Id.* at 1201.

⁵⁰ *Id.* at 1202.

⁵¹ *Id.* at 1202.

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perceived as embodying an entirely distinct artistic purpose, one that conveys ‘new meaning or message’ entirely separate from its source material.”⁵² Again, this has its roots in the Copyright and Patent Clause. Does the use offer something new which ultimately promotes progress? The majority finds that it does. In coming to this conclusion, the Court relies on the fact that Google copied the declaring code in order to create a mobile platform for the Java language which would enable coders who are already familiar with the language to code and create programs on entirely new platforms that were previously unavailable to them. This would not only encourage programmers to develop new applications, but it would also incentivize the public to buy Google’s newly acquired mobile devices. Therefore, the work is transformative.

The other two common considerations under the first factor of copyright are commerciality and bad faith. Commerciality refers to whether the use is commercial in nature. In the past, uses that were for-profit often led to the presumption against fair use. However, in recent years, the courts have emphasized that there are several cases of fair use that are commercial. In fact, several of the examples of fair use listed in the preamble of § 107 are commercial. It is therefore logical to assume that Congress did not intend to swallow up its own examples by holding all commercial uses to presumptively constitute infringement. This is not to say that commerciality has been rendered a completely useless factor of consideration. Absent a finding of a degree of transformation, the weight that commerciality holds on the copyright scale tips further against fair use. Bad faith is more intuitive and is also tied to the question of whether the use is transformative. Bad faith may be implicated here. Google and Oracle originally attempted to negotiate a license. Unable to come to terms, this deal fell through, and Google copied anyway. Does this infer bad faith on Google’s part? The Court only expresses skepticism on the importance of bad faith in the analysis of fair use at all and focuses instead on the other factors.

⁵²*Andy Warhol Found. for Visual Arts, Inc. v. Goldsmith*, 11 F.4th 26, 41 (2d Cir. 2021).

With both of these factors, the degree to which a use is transformative also appears to be of importance to the courts. The more transformative a use, the less important the overall commerciality of the use.⁵³ Since Google's use of the declaring code is considered by the Court to be transformative to a substantial degree, the overall commercial nature of the venture is weighed less. Thus, according to the Court, this factor, in light of the several considerations as a whole, falls into neutrality.

*d. The Amount and Substantiality of
The Portion Copied*

The amount and substantiality of the portion used requires the analysis of both quality and quantity. Quantity refers to the amount copied compared to the Plaintiff's whole work. Quality, however, refers to the type of content copied. In many cases involving literature, for example, the threshold examination is whether the portions used by the defendant are "heart" of the plaintiff's work.⁵⁴

The Court phrases the question as "whether those 11,500 lines of code should be viewed in isolation or as one part of the considerably greater whole."⁵⁵ Furthermore "the 'substantiality' factor will generally weigh in favor of fair use where, as here, the amount of copying was tethered to a valid, and transformative, purpose."⁵⁶ The Court thinks that this test is satisfied. For one, the quantitative nature of the copying is minimal. It is a total of 0.4% of the total Sun Java API program. The qualitative nature, Justice Breyer says, is purely functional. Those 37 packages were copied purely to enable the overall functionality of the program which was necessary in order to fulfill the overall transformative purpose of the new platform: to enable programmers who were already familiar with the java programming language to program on Android

⁵³ *Campbell v. Acuff-Rose Music, Inc.*, 510 U.S. 569, 579 (1994).

⁵⁴ *Harper & Row Publishers, Inc. v. Nation Enterprises*, 471 U.S. 539, 544 (1985).

⁵⁵ *Google* No. 18-956, slip op. at 1205.

⁵⁶ *Id.*

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devices which furthers the development of programs. Therefore, substantiality weighs in favor of fair use.

e. Market Effects

The market effect refers to the effect that the copying in question may have on the copyrighted work's market or value.⁵⁷ One factor is the possible loss of revenue the copyright owner may face, balanced with the benefit to society that the copying may produce. Potentiality for lost revenue, however, does not include those lost sales which may flow from natural consequences like comments or criticisms that reduce interest in, and sales of, the work in question. Criticisms and comments are protected works under copyright too, and these are the ideas that naturally flow from, and are encouraged by, the Copyright and Patent Clause in order to encourage the free-flow of new ideas into the marketplace.

The majority reasoned that the market effects were minimal in this case due to the fact that Oracle was "poorly positioned to succeed in the mobile phone market."⁵⁸ The evidence presented showed that there was an attempt to break into the mobile phone market which proved unsuccessful, and that such failure was not a result of Google's acquisition of Android.⁵⁹ Again, the Court ties this analysis back to the transformative nature of Google's copying. This use was justified in that it was more than a simple "repurposing" of the code, but that the "platform was part of a distinct (and more advanced) market than Java software."⁶⁰ Notice also that the Court differentiates between Google's market for mobile devices, and Oracle's market which was largely based on computers. Although the Court does recognize that Google did make a substantial amount of money from this venture, and that Oracle may have even been entitled to the profits thereof, it posits that the enforcement of said copyright in this scenario would limit

⁵⁷ 17 U.S.C. § 107(4).

⁵⁸ *Google* No. 18-956, slip op. at 1206.

⁵⁹ *Id.* at 1209.

⁶⁰ *Id.* at 1207.

future creativity and new programs.⁶¹ This is not necessarily incorrect. At the time, and throughout the years that it took for this case to work its way through the court system, such copying of APIs had become a standard industry practice that many had come to rely on. An industry practice that, one could say, allowed for the fast-paced development of technology which eventually rendered this very coding language before the court, virtually nonexistent among programmers.

f. Outcome

As a result, ten years later, the Court decided that Google's use of the 11,500 lines of the Sun Java API was a fair use.⁶² The overall impact of this is currently up for speculation, however, the Court has afforded both itself, and the industry, wide-latitude for possible fair uses of similar programs or technology. However, many companies may still be deterred from relying on fair use due to the lengthy, and inconsistent history of this case, and will most likely continue to proceed to seek licenses. There have also been other licenses, such as FRAND licenses, which have enabled the companies to compromise in the interest of reaching both fair licensing agreements and allowing others to use their technological advancements so that the whole of society benefits.

ii. *The Dissent*

Justices Thomas and Alito come to a completely different conclusion however, based on the analysis of the same factors. Furthermore, Justice Thomas's reasoning may be considered just as persuasive. How?

b. Copyrightability

Justice Thomas argues that assuming the copyrightability of declaring code is a mistake that "disregards half the relevant

⁶¹ *Id.* at 1185.

⁶² *Id.* at 1212.

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statutory text and distorts its fair use analysis.”⁶³ According to the dissent, the definition of computer code which Congress enumerated in the Copyright Act is an express protection of computer code.⁶⁴ Even absent this provision, declaring code would meet the requirements for copyrightability.⁶⁵ The argument says that (1) this is supported by the legislative interpretation of the Copyright Act, and (2) the distinction between the declaring and implementing code is unsupported by the language of the statute and thus the overall intent of Congress on the protection that is supposed to be afforded to computer programs.⁶⁶ Therefore, the code is copyrightable and Google’s copying is an infringement that can only be protected if fair use can be shown.

c. The Nature of the Copyrighted Work

The first assessment is whether the work is creative or functional.⁶⁷ Justice Thomas says that the majority’s use of this factor to distinguish between the implementing and declaring code does not align with Congress’s intent because the definition of computer program includes computer code that creates a certain result both “directly (implementing code) and indirectly (declaring code).”⁶⁸ Furthermore, the dissent argues that declaring code is actually further to the core of copyright than is implementing code, in direct contradiction with the view taken by the majority because the declaring code, in contrast to the implementing code which “conveys no expression” is user facing and designed by programmers in a way that reflects creative expression.⁶⁹ This point on the creative expression of the declaring code at issue is something that the majority acknowledges. Lastly, on the point of merger, the dissent argues that there is no work that is not bound

⁶³ *Google* No. 18-956, slip op. at 1211.

⁶⁴ *Id.*

⁶⁵ *Id.* at 1185.

⁶⁶ *Id.* at 1213.

⁶⁷ *Id.* at 1215.

⁶⁸ *Google* No. 18-956, slip op. at 1215.

⁶⁹ *Id.*

inherently in some way to uncopyrightable ideas. Is this a correct assessment of the core of the majority's argument?

It is not incorrect. This does reflect Learned Hand's abstraction test which, in effect, states that nothing is original because all works contain uncopyrightable ideas, but it is the author's expression of those ideas which copyright protects.⁷⁰ Thus, copyright functions on more of a spectrum where at one end there is the core of copyright law, and on the other, there is "thin" copyright. The stark differences between the majority and dissent on the exact same principles and rules emphasizes the difficulty in the application of old legal standards to new technological advancements that seem to straddle the lines of intellectual property law and, in many cases, directly challenge it.

d. Market Effects

The dissent stays true to the strange application of the four fair use factors out of their statutory order and continues next to the market effects prong. Justice Thomas cites *Harper & Row* and touts this factor as the "single most important element of fair use."⁷¹ This is evidenced by the order in which the dissent chose to analyze these factors, and this is by far the most convincing of the dissent's points.

First, the dissent says, Google's mobile platform essentially usurped Oracle's hold on the market. Manufacturers, as a result, were no longer willing to pay to install the Java platform. Oracle's deal with Amazon, specifically, is cited as having been negotiated down by 97.5%.⁷² Samsung's contract went from a mighty \$40 million to around \$1 million.⁷³ Direct evidence of decrease in the plaintiff's market value due to the copying at issue is rare in copyright fair use cases. Here, the dissent argues, is direct evidence

⁷⁰ *Nichols*, 45 F.2d at 122.

⁷¹ *Google* No. 18-956. at 1216.

⁷² *Id.*

⁷³ *Id.*

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of “enormous harm” to Oracle’s licensing scheme that the majority does not deny but fails to mention.⁷⁴

Furthermore, this affected any opportunity that Oracle may have had to license their platform to developers of mobile systems.⁷⁵ The dissent says that the majority’s argument that Oracle was unable to enter into the mobile device market is insufficient because under the market effect prong, the court looks to (1) the potential market that the creators of original works could develop in general, and (2) any potential markets that the copyright owner could license for development by others.⁷⁶ Notice how this case started due to a failed licensing agreement between Oracle and Google? If the two had struck a successful licensing agreement, then Oracle may have been able to salvage its licensing fees which were ultimately reduced substantially as a result of Google’s new mobile platform. Ultimately, it seems that both parties, by failing to come to terms, faced a loss. Google, now having to expend significant time and costs for ten years in the court system; and Oracle, now losing out on a vast amount of licensing fees due to the creation of Google’s new platform, which ultimately supplanted its own.

Next, the dissent addresses the majority’s concern that ruling against fair use in such a case would allow an essential monopoly by Oracle that would limit the creativity and future development of programs. The dissent says that the very history of this case contradicts this point because “this case concerns only versions of Android released through November 14 . . . Google has released six major versions since then. Only about 7.7% of active Android devices still run on the versions at issue.”⁷⁷ A key example of one of the central issues in this case, the programs that the Court is debating, and the industry standard being questioned, have all already gotten away.

⁷⁴ *Id.*

⁷⁵ *Id.* At 1217. (citing *Campbell*)

⁷⁶ *Google* No. 18-956, slip op. at 1217.

⁷⁷ *Id.*

Addressed finally in this section is the fact that other market substitutes were created without copying by both Apple and Microsoft.⁷⁸ However, the merger doctrine still does apply when there are very limited ways of expressing a certain idea that is inherently bound to its expression.⁷⁹ Is it likely that Apple and Microsoft just developed those other very limited options of expression? Still, the fact that Apple and Microsoft were able to create their own mobile operating systems begs the question of whether Google's copying was necessary at all and brings into perspective that element of bad faith again. Lastly, Justice Thomas is rightfully concerned that allowing such use would disincentivize creation by authors since the exclusive rights to their works would receive less protection under this regime. Overall, the dissent clearly finds that this factor falls against the application of fair use in direct contrast to the majority's opinion.

e. Purpose & Character of the Use

The dissent argues that the copying for the purposes of enabling the creation of new products on a mobile platform is not within the meaning of "transformative." It is argued that such an interpretation of transformative would "eviscerate" copyright because any new products created from a copyrighted product would be protected as a transformative use.⁸⁰ This is not within the meaning of "something that is fundamentally different from the original."⁸¹ In conclusion, the use is not transformative but was instead an exploitation of the copyrighted material "without paying the customary price."⁸² Justice Thomas's viewpoint on the majority's interpretation of transformative use is important because it brings into question to what extent a use must be transformative. In the traditional sense, Google's development of the mobile

⁷⁸ *Id.*

⁷⁹ Merger Doctrine refers to when an idea is inextricably bound with its expression so that there are very limited ways of expressing the idea, therefore copyright protection cannot extend to it. *Kregos*, 937 F.2d at 705.

⁸⁰ *Google* No. 18-956, slip op at 1219.

⁸¹ *Id.*

⁸² *Id.* citing *Harper & Row*.

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platform does not bring new meaning or message to the java platform, but enables mobile devices to now be able to use the platform. One could argue that this is transformative enough, and this is an argument that the majority agrees with, however, Justice Thomas is rightfully concerned about the possible policy implications. If one could create a new use from the same product, and that new use essentially supplants the market for the original product, should it really be deemed as transformative? If this were to be the case, then any “new” creation of a product of the original creator could be effectively undermined and destroy the incentives that copyright protection was intended to extend to creators.

f. Amount & Substantiality of The Portion Taken

Finally, the dissent argues that the copying at issue was at the heart of the program, and that more was taken than necessary in order for the copier to create a transformative use.⁸³ Therefore, factor also cuts against fair use.

C. Alternatives To The Copyright Scheme for Technological Innovation

Compulsive licensing, private agencies, and government oversight, have all been implemented into the copyright scheme for music law. Therefore, it is not a novel idea to try to implement any, or all, of these systems into the copyright regime for technology. However, music law, due to a lengthy history of broadcasting lobbies and other factors, is extremely complicated as a result. Although these schemes attempt to find an effective compromise between the interests of several different groups of people, many of whom play critical roles in the making of the music, some of these ideas are still relatively new, and may have just further complicated matters as a result. So where does this leave technological innovations in the scheme of copyright law?

⁸³ *Id.*

i. Independent Government Agencies

First, it is unlikely that an independent, bureaucratic agency where an owner would negotiate to sell their rights for compensation, would actually be a workable solution for a few reasons.⁸⁴ For one, there may be constitutional challenges in concern to this regime because the Copyright and Patent Clause is specifically designed to benefit authors, and the selling of rights for possibly only a one-time fee, could be seen as removing essential exclusive rights, monopoly privileges, and moral rights of authors.⁸⁵ Furthermore, it may actually end up disincentivizing creation in direct opposition to the goal of the Copyright and Patent Clause.

ii. Private Agencies

Private agencies may be a more workable standard, however, like the application in music law, one could sell some of the exclusive rights, like that of distribution and reproduction, for a fee to the private agency, which in turn licenses out that exclusive right for use to other companies and takes a share of the licensing fees, while the remainder goes to the copyright owner. Based on the consensus among technology companies, this would appear to be a more workable compromise. First companies could still negotiate with other private licensing companies for terms that are favorable to them. Furthermore, since this would be a private industry scheme, there could be several companies all competing for licensing deals, much like record labels, in turn offering more options for technology companies. Secondly, everyone would still retain some set of exclusive rights, even the original copyright owner, and still continue to be paid for that work. The incentive thus remains intact for authors to continue to create works. Lastly, the ability to pay a reasonable licensing fee as a result of several companies competing for deals on both the supplier and consumer end, would allow the continuation of technological progress based off of new ideas

⁸⁴ Lior Zeimer, *Rethinking Copyright Alternatives*, 14 INT'L J.L. & INFO. TECH. 137 (2006).

⁸⁵ Art. I., § 8, cl. 8.

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supplied to the marketplace while also maintaining adequate compensation for the creators and copyright owners. This is the type of solution which would allow for a benefit to all involved. The overall regime would be complex, but it could be argued that it has (1) been done before in the context of music law, and (2) it would be worth it in order to effectuate the incentives, pay, and progress desired.

iii. FRAND

FRAND licensing of patents seems to offer a welcome compromise to these regimes that seem overbearing or unsatisfactory. Under FRAND licenses, entities that have a product or process that have interoperable features can submit its patents to a standard setting organization (“SSO”) within its industry which then decides whether or not that patent is a standard-essential patent (“SEP”).⁸⁶ This patent must meet certain requirements and the owner relinquishes certain rights and must agree to certain commitments. There are many benefits to this system. For one, companies are incentivized to submit their patents to become an industry standard because it eliminates lengthy negotiation processes over licenses with many different companies, competition among these companies, and increases marketing power.⁸⁷ The companies do have the ability to receive a reasonable royalty fee for this license, or to license it for free.⁸⁸ Furthermore, it creates a standard industry platform therefore all companies can be up-to-date with the latest processes and products. It also eliminates discrepancies because the licenses should be essentially the same or similar to all licensees according to FRAND’s terms and the oversight of the SSO. Finally, there are also viable remedies for when these terms are broken or abused. FRAND licenses operate as contracts and therefore failure to comply with its terms can provide for injunctive and breach of contract claims.⁸⁹ However, this does prevent issues due to the variety of possible remedies and

⁸⁶ Srividhya Ragavan et al., *Frاند v. Compulsory Licensing: The Lesser of the Two Evils*, 14 Duke Law & Technology Review 84, 87 (2015).

⁸⁷ *Id.* at 89.

⁸⁸ *Id.*

⁸⁹ *Id.* at 93.

inconsistent outcomes of such cases. It has also been difficult to reconcile internationally, which ultimately impedes on the market efficiencies that this scheme was supposed to create, especially in a world where society and economy are more globalized, this issue could continue to grow in the future.⁹⁰ Overall, patent law has demonstrated that this standard is workable, and possibly more appealing to private businesses who want as little government oversight as possible and want to continue to receive reasonable royalty fees. However, it may impede future economic growth on an international scale, and whether having multiple SSOs for oversight for different industries may be beneficial because each is tailored to that specific industry, it may prove to be a complex system that is difficult, and inefficient to navigate.

iv. Compulsive Licensing

Under a compulsory licensing scheme, one could still maintain the option to negotiate a license with the copyright owner. However, should that fail, they could still use the product through notification to the Copyright Office, and pay a set fee.⁹¹ Again, this is already in effect in music law. Should someone who desires to use a copyrighted sound recording and the licensing deal from the source fails, there is a separate government agency that analyzes a set of several factors and sets a baseline licensing fee that must be paid for compulsory license. So long as the copyright office is notified of such use and the license is paid, the license goes into effect. However, as mentioned before, companies are concerned over having control over their intellectual property. To some extent, compulsory licenses remove this control. Secondly, it is argued that compulsory licenses do not offer fair compensation for the license. It essentially removes the company's ability to negotiate favorable terms, and it is argued that the burden is felt disproportionately on

⁹⁰ *Id.* at 88.

⁹¹ Mary L. Mills, *New Technology and the Limitations of Copyright Law: An Argument for Finding Alternatives to Copyright Legislation in an Era of Rapid Technological Change*, 65 CHI.-KENT L. REV. 307, 337 (1989).

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the licensor.⁹² Third, owners and creators argue that compulsory licenses disincentives for creation. Compulsory licenses are ultimately a difficult balancing act. While compulsory licenses may enable licensees to create new products or services from the available technology, it may decrease the overall contribution from these original creators who provided that building block in the first place.

IV. CONCLUSION

In conclusion, the case of *Google v. Oracle* demonstrates the many issues with the current copyright scheme and its applicability to modern technological advancements. There are no modern solutions to these licensing and use problems that would prove an adequate compromise, and the court cases that continue to shoehorn past historical precedent into modern issues that directly challenge and straddle the lines of all of the applicable rules. Although the decision in *Google v. Oracle* was not a split decision, when comparing the opinions of the dissent and majority, both can seem equally persuasive in light of the facts as each side presents and applies them to the rules. It is clear from this case that alternative, workable solutions are necessary.

In light of the alternatives presented above, there are several possible workable standards. For one, a combination of the private agency and compulsive licensing schemes currently work together in music law, providing for a viable compromise between licensors and licensees. Although the compulsory licensing scheme is relatively new, it provides a new avenue and compromise for the many players within the music arena. Like in music law, there are several individuals with interests in concern to the copyright ownership, creation, distribution, and reproduction of these rights. FRAND also offers a clear alternative that presents both incentives and benefits for both sides. Overall, however, a clear scheme will be necessary in the future in order to enable tech companies to operate without constant fear or worry of impending litigation. This

⁹² Srividhya Ragavan et al., *Frاند v. Compulsory Licensing: The Lesser of the Two Evils*, 14 Duke Law & Technology Review 84, 92 (2015).

would enable further growth and development which is the overall goal, while ensuring that everyone receives the compensation that they are owed and have earned. The tech world and its many facets have outgrown the old copyright scheme, and it is necessary that the courts and the legislature rethink attempting to fit it into a regime that it no longer fits in.