DO THE GAMES NEVER END?

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INTRODUCTION

Categories create hours of fun for the legal mind. Is it this? Or is it that? Could it be both? At the end of the day, the best, but nagging, answer might be "None of the above."

Categories are at the heart of Professor Samuelson's article, which addresses the vexing question of how to categorize software as intellectual property.[1] The central dilemma is drawing the line between copyright and patent, particularly with respect to software.[2] A common mantra is that copyright protects expression ("what a work says") while patent protects function ("what a work does"). Saying and doing, however, are not often distinguishable, especially for software. A program is a set of instructions.[3] It says something, like a recipe. But unlike a recipe, a software program is self-executing: It does something, occasionally, on its own accord. Hence, why the question at the heart of Professor Samuelson's article is so critical and tantalizing. Adding to the challenge is the pending decision in *Google LLC v. Oracle American, Inc.* ("*Google*")[4] by the U.S. Supreme Court, for which Professor Samuelson's article serves as a necessary guidepost.

This Response traverses and remixes the boundary between copyright and patent, both actual and imagined. Section One reacts to Professor Samuelson's article. Section Two presents my views on how the Supreme Court might decide the *Google* decision. Finally, in Section Three, I recommend some policy options in the shadow of the *Oracle American, Inc. v. Google Inc. ("Oracle")*.[5]

I. BLURRING MUTUAL EXCLUSIVITY

The mutual exclusivity rule is the commonly accepted understanding that a specific work cannot be protected by both patent and copyright.[6] Professor Samuelson demonstrates that the Federal Circuit Court of

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1. Pamela Samuelson, *Staking the Boundaries of Software Copyrights in the Shadow of Patents*, 71 FLA. L. REV. 243, 243 (2020).

2. *See id.*

3. *See id.* at 258 n.72.

4. 140 S. Ct. 520 (2019).

5. 750 F.3d 1339 (Fed. Cir. 2014).

6. *See* Samuelson, *supra* note 1, at 243.

Appeals in its *Google* and *Oracle* decisions has eviscerated this rule.[7] By ruling that Application Programming Interfaces ("API"),[8] or "software interfaces,"[9] are copyright protected, the Federal Circuit ignored the boundary between patent and copyright set forth in Section 102(b) of the Copyright Act of 1976 and defined in the Supreme Court 1879 precedent, *Baker v. Selden*.[10] Professor Samuelson's article presents five ways that jurists and scholars have refined the boundary between patent and copyright.[11] A layering approach breaks down a work into various components—or layers—which are accorded either copyright or patent protection depending on whether the layer is expressive or functional.[12] A categorical approach excludes methods, systems, processes, ideas, and the other items in Section 102(b) of the Copyright Act from protection.[13] A third approach is to accord mixed expressive and functional works thin copyright protection.[14] Judicious application of the merger doctrine is a fourth approach to denying copyright protection to works whose unprotected elements and protected elements are inseparable.[15] Finally, following on the analysis in *Baker* as interpreted by scholars like Professor Wendy Gordon, copyright protection is denied to the useful application of works, separate from the explanatory expression in the work.[16] Each of these approaches is more nuanced and consistent with established law than the Federal Circuit's approach which simply allows overlapping patent and copyright protection. These approaches, Professor Samuelson suggests, offer bases for how the Supreme Court might correct the Federal Circuit's error.[17]

Some background is useful to understand how the mutual exclusivity rule has become blurred by the Federal Circuit.[18] At the industry level,

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7. *See id.* (describing the "CAFC's *Oracle* decision [as] deeply flawed").

8. Defined in the district court as "a set of pre-written programs to carry out various commands, such as printing something on the screen or retrieving the cosine of an angle." *Oracle*, 872 F. Supp. 2d 974, 977 (N.D. Cal. 2012), *rev'd*, 750 F.3d 1339 (Fed. Cir. 2014).

9. The certiorari petition and the grant use the term "software interface" rather than "application programming interface." Software interfaces are "lines of computer code that allow developers to operate prewritten libraries of code used to perform particular tasks." Petition for Writ of Certiorari at 2, Google LLC v. Oracle Am., Inc. 140 S. Ct. 520 (2019), (No. 18-956).

10. Baker v. Selden, 101 U.S. 99, 105 (1880).

11. *See* Samuelson, *supra* note 1, at 267–81.

12. *Id.* at 268.

13. *Id.* at 270.

14. *Id.* at 274.

15. *Id.* at 276.

16. *Id.* at 278; *see also* Wendy J. Gordon, *How* Oracle *Erred: The Use/Explanation Distinction and the Future of Computer Copyright*, *in* COPYRIGHT LAW IN AN AGE OF LIMITATIONS AND EXCEPTIONS 319, 339 (Ruth Okediji ed., 2017).

17. *See* Samuelson, *supra* note 1, at 281–82.

18. Oracle Am., Inc. v. Google Inc., 750 F.3d 1339 (Fed. Cir. 2014), *cert. denied*, 135 S. Ct. 2887 (2015).

patents and copyrights do overlap to the extent that industry players may use both patent and copyright protection for their various works.[19] The software industry is evidence of this overlap—as is the film industry and the book publishing industry. This means that players within an industry often create both utilitarian and aesthetic works, turning respectively to patents and copyrights for protection. There are of course some industries that may be exclusively patent-based or copyright-based. Pharmaceuticals illustrate the exclusive use of patents; the fine arts illustrate the exclusive use of copyright. However, it is fair to say that both patents and copyrights are pursued by a wide number of industries.

The problem is extending this overlap at the industry level to the intellectual property strategies of particular firms as applied to particular works. Under the mutual exclusivity rule, a work can be protected by either patent or copyright.[20] While a work may have many components, the work understood in terms of its separable parts might fall into either the patent or copyright box. The mistake that the Federal Circuit made is to project the overlap between the patent and copyright to the level of the work. In other words, the Federal Circuit's logic is that since *Oracle*'s software interfaces were not protected by patent, then they must be protected by copyright.[21] The industry has both patent and copyright protection, and therefore the work in the industry must have potential overlap as well.

This logic is faulty to say the least. At the heart of the logic is the problem of excluded middles. A work may be protected by patent, protected by copyright, or *protected by neither.* Professor Samuelson points to this possibility in her discussion of trade secret protection for software.[22] While trade secret is a possible form of protection for software, some early cases dismissed trade secret protection because the code is disclosed upon dissemination of the software product.[23] More recent cases suggest that nondisclosure agreements and technological protection measures make software trade secrets feasible.[24] The point is

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19. For a discussion of overlapping intellectual property regimes generally, *see* SHUBHA GHOSH & IRENE CALBOLI, EXHAUSTING INTELLECTUAL PROPERTY RIGHTS: A COMPARATIVE LAW AND POLICY ANALYSIS 137-38 (2018) (discussing overlapping regimes in general before proceeding to focus on the negative implications for the exhaustion doctrine).

20. *See supra* note 6 and accompanying text.

21. *See Oracle*, 750 F.3d at 1381.

22. *See* Samuelson, *supra* note 1, at 253 (discussing limits of trade secret protection with citation to Videotronics, Inc. v. Bend Elecs., 564 F. Supp. 1471, 1475–78 (D. Nev. 1983)).

23. *See id.*

24. *See, e.g.*, Broker Genius, Inc. v. Zalta, 280 F. Supp. 3d 495, 503 (S.D.N.Y. 2017); Airwatch LLC v. Mobile Iron, Inc., No. 1:12-cv-3571-JEC, 2013 WL 4757491, at *4 (N.D. Ga. Sept. 4, 2013). The plaintiff in the famous software copyright case, *Computer Associates v. Altai*, raised a trade secret claim, but it was dismissed for falling outside the statute of limitations under applicable Texas law. *See* 126 F.3d 365, 367 (2d Cir. 1997), *cert. denied*, 523 U.S. 1106 (1998).

that mutual exclusivity is a rule of one form of protection, not a rule of either copyright or patent. More forcefully, the mutual exclusivity rule allows for one form of protection *or none*. Aspects of software might fail copyright protection for being functional and also fail patent or trade secret protection for failure to meet one of the requirements.

By finding copyright protection for software interfaces, the Federal Circuit ignores the possibility of no intellectual property protection at all. Perhaps no party, not even Google, would have the incentive to make the case for *res nullius*. Furthermore, the Federal Circuit sees, as its mandate, the protection of patents and related intellectual property rights. But as a matter of logic and policy, no protection is a possible, and correct, result.

In conclusion, let me also point out that industry overlap with respect to patent and copyright does not necessarily imply overlap at the level of the firm. In a preliminary study of design protection, I found that none of the top owners of design patents in the United States were also top owners of registered copyrights in design.[25] That 2017 study concluded: "The fact that companies with design patents do not seem to be filing copyright registrations suggest that firms do engage to some extent in the selection of regimes."[26] In other words, even with overlap (and there is extensive overlap in subject matter between design patent and copyright), firms seem to, in practice, select between the two regimes.[27] I offer several explanations for this observation, such as the specialization of intellectual property counsel, the nature of the works, and differences in infringement and other doctrines.[28] Implicit election occurs among firms in pursuit of design protection, including firms that might eschew intellectual property rights altogether.[29] These findings might not be restricted to the world of design. Although further study of the choice by firms of utility patent and copyright protection is warranted, election of regimes might be occurring. Overlap in subject matter might be masking other doctrinal and practical differences (such as costs) that might make companies choose among intellectual property regimes. This observation is important for the policy discussion of election through disclaimer in Section Three. It is also relevant background in predictions about how the Supreme Court might decide the *Google* case, the subject of the next section.

II. WHAT MIGHT THE SUPREME COURT WROUGHT?

The Supreme Court may correct the Federal Circuit and clarify the boundary between copyright and patent. Unfortunately, the Supreme

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25. *See* SHUBHA GHOSH, INST. FOR INTELLECTUAL PROP., DESIGN PROTECTION LAW AND POLICY: A COMPARATIVE PERSPECTIVE JAPAN AND US 30 (2018).

26. *Id.* at 30–31.

27. *Id.* at 30.

28. *Id.* at 30–31.

29. *See id.* at 47.

Court postponed its scheduled March 24 argument in the Google appeal, and we need to wait for the usual hints of the final judgment. This delay is particularly frustrating as the Court came very close to establishing precedent on the copyright-patent bounder § 17 U.S.C. 102(b) in the *Lotus Development Corp. v. Borland International, Inc.*[30] decision of 1996. That decision was four to four, affirming the First Circuit Court of Appeals opinion ruling against copyright for menu command hierarchies under § 102(b).[31] The divided Supreme Court failed to establish an answer to the question of functionality limits on copyright. Perhaps the current Supreme Court can establish precedent beyond its 1879 ruling in *Baker*.

Of course, the Supreme Court might evade the issue of § 102(b) altogether, as the second question in the grant of certiorari is about the fair use ruling against Google.[32] Although the technical analysis of fair use may be complicated here, the Court can rule on procedural grounds that the Federal Circuit should have been more deferential to the jury finding of fair use. If the Supreme Court cannot find consensus on the question of copyright subject matter, this procedural approach might offer a unanimous basis for a decision.

Weighing against such path is the insistence of the Supreme Court for nearly a decade to rule on the question of patentable subject matter. A ruling on copyright subject matter might follow from this trend. Whether the Court can identify a clear rule distinguishing copyright subject matter from patent subject matter would be the compelling question. Following the analysis of the First Circuit in *Lotus Development*,[33] the Supreme Court could rule that the software interfaces at issue is uncopyrightable because it fits into one of the categories under § 102(b), perhaps a method of operation, a process, or system. This ruling would be narrow, as applying only to software interfaces, and therefore not satisfying for those

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30.   49 F.3d 807 (1st Cir. 1995), *aff'd by an equally divided Court*, 516 U.S. 233 (1996).

31.   Lotus Dev. Corp. v. Borland Int'l, Inc., 516 U.S. 233, 233 (1996).

32.   *See* Oracle Am., Inc. v. Google LLC, 886 F.3d 1179, 1186 (Fed. Cir. 2018) (reversing jury finding of fair use). The Federal Circuit not only reversed a jury finding but also based its finding largely on the commercial nature of Google's use. *See id.* at 1210. This emphasis on a single fair use factor conflicts with the Supreme Court's ruling in *Campbell v. Acuff-Rose Music, Inc.*, 510 U.S. 569, 572 (1994) (holding that nature of use is just one factor in a multifactor fair use analysis). Furthermore, if Google's use was functional, then very likely its use would be fair. *See, e.g.*, Sony Computer Entm't, Inc. v. Connectix Corp., 203 F.3d 596, 599 (9th Cir. 2000) (finding reverse engineering involving intermediate copying fair use); Authors Guild, Inc. v. Google, Inc., 804 F.3d 202, 207 (2d Cir. 2015), *cert. denied*, 136 S. Ct. 1658 (2016) (finding copying for the purpose of search function fair use). For a detailed discussion of the relationship between fair use and functionality, *see* Jacob Victor, *Utility-Expanding Fair Use*, 105 MINN. L. REV. (forthcoming 2021) (presenting a valuable discussion of how fair use has served the purpose of expanding valuable functional uses but at the same time suggesting that compulsory licensing may be the more appropriate mechanism to protect such uses).

33.   *See Lotus*, 49 F.3d at 815.

who want a broader holding, as in *Baker*. On the other hand, such a ruling could set the stage for future rulings on the copyrightability of other components of software. Just as the 2010 *Bilski v. Kappos*[34] decision about business methods was an invitation for three other patentable subject matter decisions (*Mayo Collaborative Services v. Prometheus Laboratories, Inc.*,[35] *Association for Molecular Pathology v. Myriad Genetics, Inc.*,[36] and *Alice Corp. v. CLS Bank International*[37]), so the Google decision might open up a line of cases on software copyright.

The Court might adopt a broader approach, looking beyond software interfaces, to develop a test for copyrightability of software more broadly. This broader approach would parallel what the Court did with respect to determining when a process is patentable in the *Alice* decision.[38] But the critical reaction to the inscrutable two-part test of *Alice* may bespeak caution for the Court in going too far beyond the facts of *Oracle*. While the Court has expressed doubts about the monopolistic effects of intellectual property rights,[39] it has also been cautious through deference to Congress and the legislative balance in statutory rights, like copyright.[40] Because of this internal tension over intellectual property rights as industry overreach and rights as Congressional grants, the Court's final decision might either adopt a strong policy tone to limit software copyright or follow a literal application of the statute in identifying what Congress actually legislated about software copyright. We have seen both approaches in the area of intellectual property, but Congressional deference has been the road most often taken with respect to copyright.

This prognosis suggests that the *Google* decision will just prolong the debate so artfully described by Professor Samuelson. Consequently, I end this Response by making some policy suggestions, more of an aspiration than a proposal given the realities of legislative politics, on how to draw the boundary between patent and copyright.

III. POLICY ASPIRATIONS

Three reforms are worth considering both for guiding policy

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34. 561 U.S. 593 (2010).

35. 566 U.S. 66 (2012).

36. 569 U.S. 576 (2013).

37. 573 U.S. 208 (2014).

38. *See id*. at 217–18 (describing the two-part test for determining when a process is patentable).

39. *See, e.g.*, *Bilski*, 561 U.S. at 606 ("[P]atent law faces a great challenge in striking the balance between protecting inventors and not grant monopolies. . . .").

40. *See, e.g.*, Eldred v. Ashcroft, 537 U.S. 186, 194 (2003) ("Congress acted within its authority and did not transgress constitutional limitations); Star Athletica, LLC v. Varsity Brands, Inc., 137 S. Ct. 1002, 1015 (2017).

development and for honing our understanding of the boundary problem. The reforms for consideration are: (1) disclaimer practice for election; (2) legislation for structuring judicial discretion; and (3) increased scrutiny by administrative agencies.

A. *Disclaimer Practice as Election*

One way to enforce a boundary between copyright and patent is to introduce disclaimer practice into the acquisition of property rights. Since copyright attaches when an original work is fixed, a disclaimer would be included in the registration, a requirement for bringing a copyright infringement suit under United States law.[41] The limitation of this proposal is that non-U.S. jurisdictions do not have a registration requirement.[42] But these jurisdictions also do not suffer from the blurring of the mutual exclusivity doctrine as described by Professor Samuelson.[43]

The disclaimer would involve a statement in the copyright registration that copyright ownership does not extend to any matter that could be or is protected by patent. Additional language disclaiming any functional subject matter could also be added. Patent law might also extend its disclaimer practice to exclude copyright or trademark subject matter. But arguably, patent doctrines such as exclusions for written matter may already exclude copyright matter from patent protection.[44]

Such disclaimer practice would introduce an express requirement of election between patent and copyright. Election existed within intellectual property protection for design until 1995 when the Copyright Office seemingly followed the Patent Office in allowing for overlap.[45] This shift represents a change in administrative practice rather than an amendment to the Copyright Act or the Patent Act. What changed was not the underlying statutes but the interpretation of the statutes. Therefore, shifting back to a regime of election would not conflict with legislation or the Constitution.

However, copyright and patent practitioners, as well as their clients, might object. Professor Samuelson's article provides compelling responses in policy and historical practice for addressing such objections.

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41. *See* 17 U.S.C. § 411(a) (2020).

42. *See* Michael W. Carroll, *A Realist Approach to Copyright Law's Formalities*, 28 BERKELEY TECH. L.J. 1511, 1511 n.1 (2013).

43. How the mutual exclusivity rule fares outside the United States would be a useful research topic. Early discussions of the European Union Software Directive point to functionality limitations on software copyright. *See* Anthony R. G. Nolan, *Brave New World? Copyright Protection of Computer Programs in Germany and France in Light of the European Community Software Directive*, 39 J. COPYRIGHT SOC'Y U.S.A. 121, 127 (1991).

44. *See* Kevin Emerson Collins, *Propertizing Thought*, 60 SMU L. REV. 317, 351 (2007).

45. *See* Registrability of Pictorial, Graphic, or Sculptural Works Where a Design Patent Has Issued, 60 Fed. Reg. 15,605 (Apr. 24, 1995) (thanks to the ipprof listserv for group sourcing this citation, copy of which lies sheltered now in my blockaded law school office).

Furthermore, my empirical work on design protection suggests that firms are already electing between patent and copyright, reflecting either specialization among intellectual property counsel or other doctrinal differences between patent and copyright, such as defenses and remedies.[46]

Even if the Supreme Court overrules the Federal Circuit in the Google-Oracle dispute, disclaimer-based election is still worth considering. The Supreme Court's ruling will likely be narrow and Delphic, judging from experience. Introducing the proposed disclaimer practice would buttress the mutual exclusivity rule, not only reflecting what appears to be actual choices by seekers of intellectual property, but also restoring a longstanding understanding disturbed by the Federal Circuit ruling.

B. *Structuring Judicial Decision Making*

The Supreme Court decision in *Google* may inspire Congress to amend the Copyright Act with language excluding patentable subject matter and other functional matter from copyright protection. While § 102(b) already provides such language, clarifying language could structure judicial discretion and offer predictability to actors in the software industry. What the suggested language might say depends in part on what the Court decides and the rationale for its decision. But additions to the items in § 102(b) might be warranted to address questions about software. One possibility is to introduce language expressly implementing the mutual exclusivity rule or authorizing the disclaimer practice described in the previous subsection.

Needless to say, dysfunctions in Congress as well as in the Library of Congress may make legislative amendments unlikely.[47] With respect to patentable subject matter, there has been some success in drafting bipartisan legislation, but no success in enacting suitable amendments. Nonetheless, Congress will continue the debate and may have spillovers to judicial recognition of the problem arising from patent-copyright overlap. Judicial education may expand to include issues of functionality and copyright. To the extent possible, Congress can perhaps provide some leadership in clarifying the law however the Court might decide.

C. *Administrative Scrutiny*

The disclaimer proposal requires some adjustments in the Copyright Office. But even more work would be desirable in developing rules for how the Copyright Office should review registrations for software and

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46. *See* GHOSH, *supra* note 25, at 30–31.

47. *See* CHRISTOPHER S. REED, THE UNREALIZED PROMISE OF THE NEXT GREAT COPYRIGHT ACT: U.S. COPYRIGHT POLICY FOR THE 21ST CENTURY 235–36 (2019).

other works consisting of aesthetic and functional elements. The Copyright Office introduced some new guidelines in response to the Supreme Court's decision in *Star Athletica, LLC v. Varsity Brands, Inc.*[48] We might expect similar responses after the *Google* decision, which affords an opportunity to expand the Copyright Office's role in policing the boundary between copyright and patent.

Review of copyright registration is obviously different from patent prosecution. This difference may give the Copyright Office fewer opportunities to police the grant of copyrights. Furthermore, international treaty obligations limit the imposition of formalities for copyright protection.[49] Such obligations would constrain the Copyright Office's ability to ratchet up scrutiny of copyrights. However, international treaty obligations allow member states, like the United States, to correct the anti-competitive overreach of intellectual property rights.[50] Copyright regulations policing the boundary between patent and copyright would be consistent with the recognized need to address the balance between copyright and competition.

CONCLUSION

The title of this Response poses a question, and the Response itself suggests a negative answer. But that would be too pessimistic. Professor Samuelson's article presents the compelling problem of overlap between patent and copyright subject matter and the Google-Oracle dispute demonstrates the real consequences of this problem. The Supreme Court is only the first line of defense to the Federal Circuit's disruption. With Professor Samuelson's article, the terms of the ongoing debate have been well defined as the games continue.

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48. 137 S. Ct. 1002 (2017); *see* Compendium of U.S. Copyright Office Practices, 82 Fed. Reg. 45625 (Sept. 29, 2017).

49. *See* Niva Elkin-Koren, *Can Formalities Save the Public Domain? Reconsidering Formalities for the 2010s*, 28 BERKELEY TECH. L.J. 1537, 1538 (2013).

50. *See* J.H. Reichman, *From Free Riders to Fair Followers: Global Competition Under the Trips Agreement*, 29 N.Y.U. J. INT'L L. & POL. 11, 15 (1996).