An Empirical Study of Copyright's Substantial Similarity Test

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The substantial similarity test is copyright law's dominant means by which courts determine whether a party has infringed another party's copyright rights. Despite this, we have very little empirical evidence about what the test is and how courts apply it. To date, only a few empirical studies exist, and these are limited in several important ways, including with regards to scope, time periods covered, and volume of opinions. Mostly, courts, commentators, and scholars rely on anecdotal accounts of the test in both their conceptualizations and critiques of it.

To help provide a clearer empirical assessment of the test, this study examines a random sample of over 1,000 substantial similarity opinions issued between 1978 and 2020. This study covers opinions from district and appellate courts in every circuit and tracks a number of these opinions' characteristics. These characteristics include: the subject matter and copyright rights in dispute; procedural posture; opinion date; the subtests, expert evidence, and copyright limitations used in the opinion; the sources of authority that courts rely on in their opinions; and outcomes for each part of the test and the case overall.

This review reveals a number of important findings. First, similar to other types of copyright litigation, courts in the Second Circuit and Ninth Circuit dominate the substantial similarity space, with the Ninth Circuit more recently displacing the Second Circuit as the primary venue for substantial similarity cases. Courts also rely on opinions from these two circuits more than any other source in interpreting and applying the substantial similarity test. Second, courts typically spend little time assessing whether a defendant actually copied from the plaintiff's work. Courts mostly decide this first prong of the substantial similarity test as a matter of whether defendants had access to the plaintiff's work, and they mostly favor

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plaintiffs on this question. Courts rarely rely on expert evidence or assess the two works' similarities on this first prong, despite courts and commentators frequently opining otherwise. Third, the second part of the test, where courts assess whether the defendant's copying amounts to improper appropriation, is characterized by significant heterogeneity. No dominant means exists for resolving this question, and, in any given opinion, a court typically uses multiple subtests and copyright limitations to decide this inquiry. Courts also use expert evidence more frequently under this prong of the test than the first part, a result that defies conventional wisdom. Finally, defendants win substantial similarity cases slightly more frequently than plaintiffs. This is further evidence that prong one of the test, where plaintiffs enjoy significantly greater success, appears to be largely inconsequential. The data also suggest that one of the keys to winning, for either defendants or plaintiffs, is the extent to which the court engages with and discusses copyright limitations.

We conclude by considering several implications. First, courts should maintain the two traditional prongs of the substantial similarity test as distinct and reinvigorate their assessments of similarity under the first prong of the substantial similarity test. Second, courts should make discussing and applying any relevant copyright limitations the heart of their prong two analyses to ensure that copyright law serves its constitutional purposes.

INTRODUCTION

Copyright law's predominant means for determining copyright infringement is the so-called "substantial similarity" test.[1] In the absence of clear direction from either the Supreme Court or Congress, lower courts have developed this test to assess whether an alleged infringer has taken so much of a copyright holder's protectible material as to constitute copyright infringement.[2] Every circuit uses some version of this test,[3] and courts employ it to assess whether any of a copyright owner's rights—not just the right of reproduction—have been violated.[4] The test is

1. Shyamkrishna Balganesh, Irina D. Manta & Tess Wilkinson-Ryan, *Judging Similarity*, 100 IOWA L. REV. 267, 268 (2014) (indicating that the question of substantial similarity "is central to almost all cases of copyright infringement").

2. *Id.*; 4 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 13.03 (Matthew Bender & Co. rev ed. 2022) (indicating that "inferior courts" are the source of the substantial similarity standard since neither the Supreme Court nor Congress have provided an alternative standard).

3. Balganesh, Manta & Wilkinson-Ryan, *supra* note 1, at 274 (noting that different substantial similarity tests are "used in every circuit").

4. 4 WILLIAM F. PATRY, PATRY ON COPYRIGHT §§ 12:13, 14:2 (2022) ("As with all exclusive rights, for a violation of the public performance right to occur, a material portion of the work must have been performed." (citing Caffey v. Cook, 409 F. Supp. 2d 484, 502 (S.D.N.Y. 2006))).

frequently in the news at the heart of highly publicized copyright disputes.[5] And for obvious reasons, scholars have devoted significant attention to analyzing and critiquing it.[6]

Despite the test's importance and universal adoption, we have very little actual empirical evidence about what it is and how courts apply it. Several law students were the first to attempt to empirically analyze the test.[7] More recently, Professor Daryl Lim provided additional empirical insights that build upon this earlier work.[8] But each of these studies has significant limitations, including in terms of scope, methodology, volume of opinions, and time frame.[9] For instance, one study confines itself to appealed decisions, and another limits itself to a particular time period.[10] Furthermore, each of these studies adopts highly stylized accounts of the test and subtests that courts use, as set forth in leading treatises.[11] Moreover, each fails entirely to grapple with a number of significant questions, including to what extent courts rely on important limitations on copyright and expert evidence as part of their substantial similarity analyses.[12] In fact, the case law is far murkier than these treatises or studies suggest. Treatises, after all, seek to provide clarity around the law, even, sometimes, at the expense of accuracy.[13] Furthermore, one of the most

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5. *See, e.g.*, Lauren Berg, *Taylor Swift Says 'Shake It Off' Didn't Copy 'Players,' 'Haters,'* LAW360 (July 20, 2021, 4:11 PM), https://www.law360.com/articles/1404858 [https://perma.cc/C8VX-KBJ2] (discussing Defendant's Memorandum of Points and Authorities in Support of Motion for Summary Judgment, Hall v. Swift, No. 17-cv-06882, 2021 WL 3076475 (C.D. Cal. July 19, 2021)); Michael Kreiner, *Song Sound-Alike Suits: Recent Music Copyright Cases Strike a Different Note*, PILLSBURY: INTERNET + SOCIAL MEDIA (May 26, 2020), https://www.internetandtechnologylaw.com/song-sound-alike-lawsuits-music-copyright-cases/ [https://perma.cc/T5KD-AR4W].

6. For a small sampling, see Mark A. Lemley, *Our Bizarre System for Proving Copyright Infringement*, 57 J. COPYRIGHT SOC'Y U.S.A. 719 (2010); Pamela Samuelson, *A Fresh Look at Tests for Nonliteral Copyright Infringement*, 107 NW. U. L. REV. 1821 (2013); Carys J. Craig, *Transforming "Total Concept and Feel": Dialogic Creativity and Copyright's Substantial Similarity Doctrine*, 38 CARDOZO ARTS & ENT. L.J. 603 (2020); Joseph P. Fishman, *Tonal Concept and Feel*, 38 CARDOZO ARTS & ENT. L.J. 655 (2020); Christopher Jon Sprigman & Samantha Fink Hedrick, *The Filtration Problem in Copyright's "Substantial Similarity" Infringement Test*, 23 LEWIS & CLARK L. REV. 571 (2019); Laura G. Lape, *The Metaphysics of the Law: Bringing Substantial Similarity Down to Earth*, 98 DICK. L. REV. 181 (1994).

7. Katherine Lippman, Note, *The Beginning of the End: Preliminary Results of an Empirical Study of Copyright Substantial Similarity Opinions in the U.S. Circuit Courts*, 2013 MICH. ST. L. REV. 513, 516 (studying different aspects of 234 appellate-level substantial similarity opinions); Eric Rogers, Comment, *Substantially Unfair: An Empirical Examination of Copyright Substantial Similarity Analysis Among the Federal Circuits*, 2013 MICH. ST. L. REV. 893, 896–97 (scrutinizing the same set of cases using different metrics).

8. Daryl Lim, *Saving Substantial Similarity*, 73 FLA. L. REV. 591, 598 (2021).

9. *See infra* Section I.C.

10. Lippman, *supra* note 7, at 535–36; Lim, *supra* note 8, at 614.

11. Lippman, *supra* note 7, at 526 (primarily relying on three categories of subtests based on certain treatises that summarize substantial similarity case law).

12. Lim, *supra* note 8, at 602–03 (similar).

13. *See* Richard A. Danner, *Foreword: Oh, the Treatise!*, 111 MICH. L. REV. 821, 827–28 (2013) (discussing the purpose of treatises as laying out governing principles of certain areas of law, rather than reflecting what the courts always do).

important, if not the most important, considerations in any substantial similarity analysis is determining the scope of copyright in a work in light of important limitations on copyright's scope.[14] Yet existing empirical accounts simply don't address these (and other) topics.

Other scholars have reviewed anecdotal accounts of the test and argued for modifications to it.[15] Yet these arguments, whatever their merit, lack a solid empirical foundation for their claims. After all, if we don't know exactly how courts employ the test or what the test consists of, then it becomes difficult to propose how we should reform it. Mostly, we have highly stylized accounts of how commentators believe courts employ the test from one circuit to another, largely based on leading cases in those circuits.[16] But these anecdotal accounts, even if helpful, lack a robust empirical basis. This Article seeks to shed light on what the substantial similarity test is and how courts in different circuits employ it by providing the first in-depth empirical analysis of the test.

This empirical depth is particularly necessary with regards to the substantial similarity test because there are so many different versions of, and subtests within, the test. Each circuit has its own way of applying the test, with different circuits employing a multitude of subtests within the larger substantial similarity inquiry.[17] In fact, the substantial similarity inquiry is notorious for its lack of uniformity, both within circuits and across them, despite commentators' attempts to provide sanitized versions of what different circuits do.[18] This Article thus provides much-needed detail about what is actually happening with respect to the many different iterations of the test.

To provide this data, my research team and I (to which I will refer to as "we" throughout this Article) reviewed a random sample of 1,005 substantial similarity opinions issued between 1978 and 2020.[19] In that review, we recorded data about each of the opinions. These data include the opinion's issuing court and year, the subject matter involved, procedural posture, copyright rights invoked, tests and copyright limitations used, expert witness involvement, cited authorities, and

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14. Sprigman & Hedrick, *supra* note 6, at 580–81, 584–85.

15. *See* Lemley, *supra* note 6, at 737 (arguing, among other things, that expert testimony should be permitted under the second prong of the overall substantial similarity test); Samuelson, *supra* note 6, at 1827 (similar).

16. Eric Osterberg, *Copyright Litigation: Analyzing Substantial Similarity*, THOMSON REUTERS: PRACTICAL LAW, https://us.practicallaw.thomsonreuters.com/5-524-1501 [https://perma.cc/3J98-YV2H] (last visited Oct. 17, 2022) (providing a summary of tests used by circuit based on representative cases in each circuit).

17. *Id.*

18. *Id.* (attempting to summarize the tests that each circuit uses); Balganesh, Manta, & Wilkinson-Ryan, *supra* note 1, at 268 (suggesting that the problems and complexities that beset copyright's fair use doctrine, often viewed as copyright's most troublesome, pale in comparison to those that afflict the substantial similarity test).

19. As discussed in greater detail below, we estimate that our 1,005-opinion sample is about one-third of all available substantial similarity opinions available through Westlaw.

outcomes for each part of the test and the opinion overall. Our review of these and other questions reveals a number of important findings.

First, similar to other areas of copyright litigation, the Second Circuit and Ninth Circuit dominate substantial similarity litigation, more than doubling the next closest circuit in their share of opinions and quadrupling most others.[20] Unsurprisingly, the case law in these two circuits is also a primary source of authority for other circuits' substantial similarity decision-making.[21] While the Second Circuit is the historical leader in the substantial similarity space, the Ninth Circuit has recently overtaken it, at least in its share of substantial similarity litigation.[22] Going forward, this may mean that Ninth Circuit case law and its idiosyncrasies gain even greater influence among the circuits in how courts apply the substantial similarity test. This Second Circuit and Ninth Circuit dominance also means that many of the study's other results are strongly influenced by what happens in these two circuits, as discussed more throughout.

Second, the substantial similarity test's first prong, where courts traditionally assess whether a defendant has actually copied from the plaintiff's work in creating their own—often referred to as "factual copying"—is mostly moribund. While courts typically include prong one in their substantial similarity discussions, they mostly don't do much analysis under it, at least as commentators have traditionally understood. Courts rarely assess similarity suggestive of copying under this prong, instead mostly focusing on whether the defendant plausibly had access to the plaintiff's work.[23] Even rarer is for courts to assess expert evidence under this prong,[24] which many courts suggest is the proper venue to consider such evidence.[25] Plaintiffs overwhelmingly win on the first prong, in part because courts do not seem to treat the prong one question as important.[26] As we discuss later, we believe the Ninth Circuit's approach to prong one, which primarily focuses on the access question, exerts a strong influence on these outcomes.

Third, in contrast to the first prong, the substantial similarity test's second prong, where courts determine whether the defendant has taken so much protectable material as to constitute copyright infringement, is characterized by significant heterogeneity.[27] Our data suggest that no dominant approach to answering this question exists, even within many circuits.[28] Instead, courts normally

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20. *See infra* Section II.A.1.
21. *See infra* Section II.A.1.
22. *See infra* Section II.A.1.
23. *See infra* Section II.A.6.
24. *See infra* Section II.A.9.
25. Arnstein v. Porter, 154 F.2d 464, 468 (2d Cir. 1946) (noting that expert testimony may be relevant to the first prong but not the second), *abrogated on other grounds by* Heyman v. Com. & Indust. Ins. Co., 524 F.2d 1317, 1319 (2d Cir. 1975).
26. *See infra* Section II.A.6.
27. *See infra* Section II.A.7.
28. *See infra* Section II.A.7.

use multiple subtests and copyright limitations to shape their decisions.[29] They also use expert evidence more frequently under prong two than prong one, regardless of medium, another result that defies conventional wisdom.[30]

Finally, under prong two, plaintiffs enjoy far less success than they do under prong one, an additional indication that prong one has come to matter very little.[31] Despite this, plaintiffs still appear to win prong two and the overall outcome a little under fifty percent of the time, an outcome that is in line with predominant scholarship on probable litigant win rates.[32] One of the keys to winning, for either defendants or plaintiffs, appears to be to what extent courts engage with and apply any relevant limitations on copyright scope in their prong-two analyses.[33] Indeed, our data show that whether a court engages with copyright limitations under prong two appears to have a significant influence on a party's chances of success: defendants overwhelmingly win when courts discuss copyright limitations, whereas plaintiffs win at about the same rate when courts do not.[34] Naturally, this outcome could have a number of explanations, including the litigants' briefing and the fact that those limitations are simply more relevant in cases that defendants are likely to win. Nonetheless, we highlight this as an important consideration for future research.

We conclude by assessing some important implications of our findings. First, we urge courts to keep the substantial similarity test's two prongs as distinct inquiries and to reinvigorate their assessments under prong one. Doing so will ensure that prong-one considerations, which are important, receive their due. Moreover, reasoning properly belonging under prong one will remain there, rather than migrating into prong-two analyses, a trend our data suggest is happening. Second, we argue that the heart of courts' prong-two analyses should be discussing and applying any relevant copyright limitations. That focus will help ensure that copyright serves its constitutional purpose of promoting societal progress. Indeed, in our view, it is difficult to imagine any prong-two discussion that shouldn't start—and often end—with a discussion of copyright limitations.

I. A SUBSTANTIAL SIMILARITY PRIMER

This Part briefly outlines the general contours of the substantial similarity test. As noted above, because we lack robust empirical evidence about the substantial similarity test, one of the purposes of this Article is to provide greater clarity about what the test is and how courts in various circuits employ it. Hence, this Part

29. *See infra* Sections II.A.7–8.
30. *See infra* Section II.A.9.
31. *See infra* Section II.A.7.
32. *See infra* Section II.A.7.; George L. Priest & Benjamin Klein, *The Selection of Disputes for Litigation*, 13 J. LEGAL STUD. 1, 4–5 (1984).
33. *See infra* Part III.
34. *See infra* Part III.

provides a general understanding of the test, largely in line with the highly stylized accounts of the test on which commentators typically rely, while acknowledging the incompleteness of the account. Filling in the holes is Part II's objective.

A Test for All Seasons

In general, copyright owners have five exclusive rights in their works: the rights of reproduction, preparing derivative works, distribution, public performance, and public display.[35] Hence, contrary to common conceptions, copyright is not simply the right to prevent others from copying a work, though it is also that. Instead, copyright also provides its owners with the right to prevent third parties from distributing, publicly performing, publicly displaying, and making derivative versions of their copyrighted works—subject to a variety of limitations.[36]

For any of these rights to be infringed, an alleged infringer's use of the copyrighted work must involve a "substantially similar" copy of the original.[37] Consequently, for a third party to violate a copyright owner's distribution right, that third party must distribute a work that bears substantial similarities to the original copyrighted work. The same holds true with respect to each of the other rights.[38]

Of course, in practice, courts sometimes need not apply the substantial similarity test because the alleged infringer has used the copyrighted work in its entirety. In such cases, there is simply no doubt that the defendant has taken a substantial portion of a copyright owner's protectable expression. For instance, when a third party performs a copyrighted movie by showing the movie in a public park to a large crowd, the court need not analyze whether the movie is substantially similar to the original because it is clearly identical. This is so even if the court must wrestle with whether the performance was "public" enough to constitute infringement.[39] Similarly, when a third party distributes an entire copyrighted work by sending a copyrighted song to a friend, substantial similarity is typically not in

35. 17 U.S.C. § 106 (listing these rights). Some works are also eligible for "moral rights" in the United States. *See* Edward J. Damich, *The Visual Artists Rights Act of 1990: Toward a Federal System of Moral Rights Protection for Visual Art*, 39 CATH. U. L. REV. 945, 946–47 (1990). Furthermore, some categories of copyrighted works are subject to special rules that affect rights in them. *See, e.g.*, N. Jansen Calamita, Note, *Coming to Terms With the Celestial Jukebox: Keeping the Sound Recording Copyright Viable in the Digital Age*, 74 B.U. L. REV. 505, 509–11 (1994) (discussing the special rules that apply to copyrighted sound recordings).

36. 17 U.S.C. § 106 (listing these rights).

37. Patry, *supra* note 4 ("As with all exclusive rights, for a violation of the public performance right to occur, a material portion of the work must have been performed." (citing Caffey v. Cook, 409 F. Supp. 2d 484, 502 (S.D.N.Y. 2006))).

38. *Id.*

39. *See* Glynn S. Lunney, Jr., Aereo *and Copyright's Private-Public Performance Line*, 162 U. PA. L. REV. ONLINE 205, 205 (2014) (discussing this question).

question because the original work and the shared music are clearly the same thing. In such cases, other copyright questions predominate.[40]

But when the alleged infringement involves anything other than obvious, verbatim copies of protectable works, the substantial similarity test is typically the means courts use to assess whether a defendant has violated any of a copyright owner's rights.[41] Thus, the substantial similarity question arises when a third party copies a portion of a copyrighted work and shares it with others, a third party incorporates some of a copyrighted work into their own creative work, or any number of other situations in which a third party uses parts or even most of a copyrighted work in their own activities. In fact, even in situations where a party uses all or nearly all of a copyrighted work, courts still sometimes resort to the substantial similarity test.[42]

B. So, What Exactly Is the Substantial Similarity Test?

1. Factual Copying

The first step in the substantial similarity test is to determine whether the alleged infringer actually used the copyrighted work in their purportedly infringing activities.[43] For instance, a third party's painting may look similar to another party's copyrighted photo. On the basis of those similarities, the photo owner might bring a copyright infringement suit against the painting's creator. But what if the painting owner simply came up with the painting on their own, and the similarities are a coincidence? Under copyright law, two parties that independently come up with the same or similar creative works can both have copyright in their own creations, and neither infringes the rights of the other.[44] Similarly, perhaps the painting owner based their work on something found in nature, and the similarities between the two works owe their origins to those elements. Hence, the first step in establishing that a party's allegedly infringing activity bears substantial similarities to a copyrighted work is to establish that the alleged infringer actually used the copyright owner's work in their activities. Courts often refer to this first prong as "factual copying" or "copying in fact."[45]

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40. *See, e.g.*, Mark A. Lemley & R. Anthony Reese, *Reducing Digital Copyright Infringement Without Restricting Innovation*, 56 STAN. L. REV. 1345 (2004) (discussing copyright issues in peer-to-peer filesharing cases).

41. Balganesh, Manta & Wilkinson-Ryan, *supra* note 1, at 268.

42. *See, e.g.*, Itar-Tass Russian News Agency v. Russian Kurier, Inc., No. 95 Civ. 2144, 1997 WL 109481, at *4–5 (S.D.N.Y. 1997) (discussing the substantial similarity test even though the articles were copied verbatim), *aff'd in part, rev'd in part*, 153 F.3d 82, 94 (2d Cir. 1998).

43. *Id.* at *5.

44. *See generally*, Clark D. Asay, *Independent Creation in a World of AI*, 14 FIU L. REV. 201, 203 (2020) (reviewing this defense under copyright law).

45. JEANNE C. FROMER & CHRISTOPHER JON SPRIGMAN, COPYRIGHT LAW: CASES AND MATERIALS (version 3.0 2021).

There are several ways to establish factual copying. Sometimes plaintiffs have direct evidence that the alleged infringer used their copyrighted work in the defendant's purportedly infringing activities.[46] For instance, a defendant may admit that the copyrighted work was their inspiration in creating their own work.[47] Or perhaps the plaintiff can point to eyewitnesses of the alleged copying.[48] But often, perhaps typically, direct evidence is lacking.[49] When it is lacking, courts rely on circumstantial evidence in determining whether the alleged infringer actually copied from the copyrighted work.[50]

According to most accounts, the predominant form of circumstantial evidence is a combination of (1) evidence of the defendant's access to the copyrighted work and (2) similarities between the defendant's work and the original copyrighted work that suggests copying.[51] For instance, say a copyright owner claims that another party copied from their work. If the evidence suggests that the alleged infringer was unlikely to have ever seen the copyrighted work—because it was not generally available, for instance—then a court may side with the defendant in concluding that it isn't possible that the defendant actually copied from the plaintiff's work. Conversely, if the defendant's infringing activities concern *Return of the Jedi*—or some other similarly famous work—a court is unlikely to believe a defendant who claims they have never heard of the work and thus had no access to it. This access question is thus often the first key question in resolving the factual copying question.[52]

But even if the plaintiff proves access, the similarities between the two works may be insufficient to indicate that one was copied from the other. Consequently, many courts rely on a combination of evidence of access to the copyrighted work *and* similarities between the two works in making the factual copying determination.[53] For instance, Disney is almost certain to win the access question regarding its *Star Wars* series against anyone because of that series' widespread fame. Really, who hasn't seen the *Star Wars* movies, other than my wife? But even if a plaintiff wins on the access question, an alleged infringer's work may be so dissimilar to anything found in *Star Wars* that a court is unable to conclude that one was copied from the other.

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46. Raz Imports, Inc. v. Target Stores, No. CV–96–8658, 1997 WL 889072, at *2 (C.D. Cal. Dec. 17, 1997).

47. *Id.*

48. *Id.*

49. *Id.*

50. *Id.*

51. *See* Ran Duan, Note, Antonick v. Electronic Arts*: Expert Witnesses and Software Copyright Infringement*, 33 BERKELEY TECH. L.J. 1147, 1149 (2018) (citing NIMMER & NIMMER, *supra* note 2); Susan A. Dunn, Note, *Defining the Scope of Copyright Protection for Computer Software*, 38 STAN. L. REV. 497, 509 (1986).

52. *See generally* Stacy Brown, Note, *The Corporate Receipt Conundrum: Establishing Access in Copyright Infringement Actions*, 77 MINN. L. REV. 1409 (1993).

53. Lydia Pallas Loren & R. Anthony Reese, *Proving Infringement: Burdens of Proof in Copyright Infringement Litigation*, 23 LEWIS & CLARK L. REV. 621, 641 n.80 (2019).

At the factual copying stage of the substantial similarity test, courts call this question of similarities between the two works by different names. Some refer to the subtest as a test of "substantial similarity," which is quite confusing given that the overall test shares the same name.[54] Other courts, particularly in the Second Circuit, have tried to address this confusion by calling this subtest one of "probative similarity." These courts consider whether the similarities between the two works are probative—or suggestive—of copying from the original copyrighted work.[55]

In some cases, courts are willing to dispense with evidence of access when the plaintiff's and defendant's work are so "strikingly similar" that the court simply doesn't believe the defendant didn't take from the plaintiff.[56] In such cases, the striking similarities are said to be all the evidence of access the plaintiff needs.[57] And yet in other circuits, courts have at times employed an inverse-ratio rule: the more evidence of access, the fewer similarities necessary for the plaintiff to prove factual copying, and sometimes vice-versa.[58] However, the Ninth Circuit recently retired this rule in its own circuit, and other circuits may eventually do the same.[59]

Finally, the factual copying prong of the overall substantial similarity test is where courts are said to permit help from experts.[60] Courts thus sometimes allow experts to guide them regarding whether the similarities between two works suggest that one was copied from the other because such a determination is something that laypersons, on their own, may have trouble ascertaining.[61] As we will see shortly, courts generally indicate that experts are not permitted to guide the court on whether the alleged infringer has gone beyond factual copying and engaged in improper appropriation.[62] The next Section addresses this and other questions.

2. Improper Appropriation

Once a court has determined that factual copying occurred, it turns to the next question: has the defendant engaged in what courts often call "actionable copying," "copying in law," or "improper appropriation?"[63] Copying something from another party, after all, is not dispositive. Many things that a party copies from another are

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54. Alan Latman, *"Probative Similarity" as Proof of Copying: Toward Dispelling Some Myths in Copyright Infringement*, 90 COLUM. L. REV. 1187, 1204 (1990).

55. *Id.*

56. E. Scott Fruehwald, *Copyright Infringement of Musical Compositions: A Systematic Approach*, 26 AKRON L. REV. 15, 19–20 (1992) (reviewing case law on this question).

57. *Id.*

58. David Aronoff, *Exploding the "Inverse Ratio Rule,"* 55 J. COPYRIGHT SOC'Y U.S.A. 125, 125, 128 (2008) (providing an overview and critique of the rule).

59. Part of the reason they may have done so—and one reason the rule should probably be completely dismantled—is that courts often misunderstand the rule and apply it across the entire substantial similarity inquiry.

60. Lemley, *supra* note 6, at 722–23.

61. *Id.*

62. *Id.* at 726.

63. FROMER & SPRIGMAN, *supra* note 45, at 214.

not subject to copyright, including mere ideas, facts, functional elements, and items from the public domain.[64] In fact, these and other limitations on copyright's scope are meant to encourage parties to copy and use such elements to improve society.[65] For instance, copyright purposefully does not protect the factual content of historical research because sharing and building on those facts benefits society.[66] Furthermore, even works that were once subject to copyright eventually enter the public domain so that others may freely use and build upon them.[67] Hence, under this second step, courts assess whether what was copied is a substantial quantum of protectible material and thus infringing.

How courts carry out this inquiry is where much of the confusion arises.[68] Some courts first take the copyrighted work and determine which parts of it are subject to copyright. Courts often call this a process of "filtering" or "dissection" to separate the copyright wheat from the chaff.[69] Sometimes, if after this filtration process the court determines that the defendant has only copied unprotected material, the case is closed.[70] Otherwise, after determining which parts of the copyrighted work are protectable, courts then compare these protectable elements to the allegedly infringing work to assess whether the two works are substantially similar in these protectable elements and thus infringing.[71]

Courts use a variety of additional subtests in making this substantial similarity determination. In some circuits, they make the determination from the perspective of the "ordinary observer." [72] However, sometimes a "more discerning observer" is needed to assess the similarities and dissimilarities between the two works.[73] This is necessary in instances where the ordinary observer may be fooled by the presence

64. *See Works Not Covered by Copyright*, DIGIT. MEDIA L. PROJECT (May 9, 2008, 2:21 PM), https://www.dmlp.org/legal-guide/works-not-covered-copyright [https://perma.cc/3D3D-FLSU] (listing some of the more typical exclusions from copyright protection).

65. Pamela Samuelson, *Justifications for Copyright Limitations and Exceptions*, *in* COPYRIGHT LAW IN AN AGE OF LIMITATIONS AND EXCEPTIONS 12, 13 (Ruth L. Okediji ed., 2017).

66. *Id.*

67. Richard Stim, *Welcome to the Public Domain*, STAN. LIBRS.: COPYRIGHT & FAIR USE, https://fairuse.stanford.edu/overview/public-domain/welcome/ [https://perma.cc/XTA7-CTGV] (last visited Oct. 17, 2022).

68. Sprigman & Hedrick, *supra* note 6, at 574–75.

69. *See, e.g.*, Brown Bag Software v. Symantec Corp., 960 F.2d 1465, 1477 (9th Cir. 1992) (discussing dissection at this stage of the substantial similarity inquiry); Harney v. Sony Pictures Television, Inc., 704 F.3d 173, 179 (1st Cir. 2013) (discussing the need to dissect works in order to distinguish between protectable and unprotectable components); Kepner-Tregoe, Inc. v. Leadership Software, Inc., 12 F.3d 527, 533–34 (5th Cir. 1994) (discussing filtering out unprotectable material from the comparison).

70. *Harney*, 704 F.3d at 182 (finding the defendant had only copied unprotectable material after performing dissection).

71. *Id.*

72. Boisson v. Banian, Ltd., 273 F.3d 262, 271–72 (2d Cir. 2001) (discussing this and the following approach).

73. *Id.*

of unprotected material mixed in with protectable elements.[74] Sometimes courts focus on dissimilarities between the works,[75] and other times courts say dissimilarities don't really matter much if similarities are found.[76] In addition to the "ordinary observer" and "more discerning observer" subtests, courts use a multitude of other subtests to assess whether similarities between the two works rise to the level of substantial (and thus are infringing). Some of the iterations that courts use include the "average lay observer,"[77] "layperson,"[78] "audience,"[79] "intended audience,"[80] "ordinary reasonable person,"[81] and "reasonable observer"[82] subtests. And while it seems probable that at least some of these iterations are meant to be the same thing as the "ordinary observer" test, it's unclear that they are, or, if they are the same thing, why courts insist on using so many different names for the same test.

Some important circuits employ their own particular version of this dissection-then-comparison approach. In the Ninth Circuit, one of the copyright law giants, courts apply an "extrinsic-intrinsic" test.[83] Using this test, courts first objectively dissect and identify similarities in ideas and expression between the two works—the so-called extrinsic component of the test.[84] On this part of the test, the Ninth Circuit allows for expert testimony, contrary to the typical exclusion of expert testimony under prong two.[85]

On the intrinsic component, the court turns to a more subjective assessment of the similarities between the two works, often from the perspective of the "ordinary reasonable person" or some other similar permutation.[86] Other circuits have adopted an approach similar to the Ninth Circuit, though with their own

74. *Id.*

75. *See, e.g.*, Midwood v. Paramount Picture Corp., No. 80 Civ. 2883, 1981 WL 1373, at *1 (S.D.N.Y. Aug. 19, 1981) (discussing the significant number of dissimilarities in reaching its finding of non-infringement); Lifetime Homes, Inc. v. Walker Homes, Inc., 485 F. Supp. 2d 1314, 1320 (M.D. Fla. 2007) (indicating that similarities and dissimilarities are both important to consider).

76. *See, e.g.*, Attia v. Soc'y of the N.Y. Hosp., 201 F.3d 50, 57–58 (2d Cir. 1999) (stressing the immateriality of differences if similarities can be found).

77. Jones v. CBS, Inc., 733 F. Supp. 748, 752 (S.D.N.Y. 1990).

78. Busti v. Platinum Studios, Inc., No. A-11-CA-1029, 2013 WL 12121116, at *6 (W.D. Tex. Aug. 30, 2013).

79. Kebodeaux v. Schwegmann Giant Super Markets, Inc., No. 92-2086, 1993 WL 114526, at *1 (E.D. Lou. Apr. 8, 1993).

80. W.H. Midwest, LLC v. A.D. Baker Homes, Inc., No. 18-cv-1387, 2019 WL 4645497, at *3 (S.D. Ohio Sept. 24, 2019).

81. Clark v. Dashner, No. 14-00965, 2016 WL 3621274, at *6 (D.N.M. June 30, 2016).

82. Whitehead v. Dreamworks LLC, No. CIV. A. 98-1917, 2001 WL 1218903, at *3 (D.D.C. June 14, 2001).

83. Mattel, Inc. v. MGA Ent., Inc., 616 F.3d 904, 913 (9th Cir. 2010).

84. Trackers, Inc. v. Tree Island Wire (USA), Inc., No. SACV07-1295, 2009 WL 10675072, at *2 (C.D. Cal. May 18, 2009).

85. Tacori Enters. v. Nerces Fine Jewelry, No. CV 12-2753, 2013 WL 12113229, at *7 (C.D. Cal. Sept. 20, 2013) (relying on expert testimony under prong two).

86. *Id.* at *6 (referring to the "ordinary reasonable observer").

gloss.[87] Furthermore, sometimes courts applying the extrinsic-intrinsic approach, including within the Ninth Circuit, seem to apply the extrinsic component of the test as if answering the *factual copying* question.[88] In fact, in our review of thousands of substantial similarity opinions, courts frequently fail to keep the two questions of factual copying and improper appropriation analytically distinct, with courts at times applying tests that belong under one prong in the other. More on this to come.

Other courts eschew this dissection-then-comparison approach and instead compare the works as a whole, even if they do perform dissection initially.[89] According to some courts, this "total concept and feel" approach is necessary because works as a whole can be subject to copyright, even if their constituent parts, in isolation, are not.[90] Hence, dissecting the copyrighted work and then only comparing the "golden nuggets" to the allegedly infringing work may sometimes result in courts finding no infringement when defendants have, in fact, copied a substantial portion of protectable material resulting from how an author put together otherwise unprotectable elements. Again, courts have refused to use consistent language for this approach, even if slight variations in wording are supposed to mean the same thing. Furthermore, this total-concept-and-feel approach is also viewed from the plethora of subtests mentioned above and thus suffers from the same inconsistencies and ambiguities.

All of the above is only meant to provide a rough overview of how commentators generally understand the substantial similarity test to operate. There are literally dozens of other subtests upon which courts sometimes rely. These include examining similarities between the two works from both a quantitative and qualitative perspective,[91] determining whether "comprehensive nonliteral similarity" between the two works exists,[92] assessing whether "fragmented literal similarity"

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87. Our review indicates that at least the Third Circuit, Fourth Circuit, Fifth Circuit, Sixth Circuit, Seventh Circuit, Eighth Circuit, Tenth Circuit, and Eleventh Circuit have at times used a form of the extrinsic-intrinsic test.

88. *See, e.g.*, Gates Rubber Co. v. Bando Am., Inc., 798 F. Supp. 1499, 1509–10 (D. Colo. 1992) (purporting to apply the extrinsic test as a means for determining whether the defendant had, in fact, copied from the plaintiff under prong one), *aff'd in part, vacated in part sub nom.* Gates Rubber Co. v. Bando Chem. Indus., Ltd., 9 F.3d 823 (10th Cir. 1993); Integral Sys., Inc. v. Peoplesoft, Inc., No. C-90-2598, 1991 WL 498874, at *6 (N.D. Cal. July 19, 1991) (indicating that the purpose of the extrinsic test is to assess whether the similarities between the two works indicate that the alleged infringer used the plaintiff's work in creating their own).

89. *See, e.g.*, Design Basics LLC v. J&V Roberts Invs., Inc., 130 F. Supp. 3d 1266, 1281 (E.D. Wis. 2015) (performing filtration but finding that the "overall look and feel of the works is substantially similar").

90. *See, e.g.*, Vacchi v. E*TRADE Fin. Corp., No. 19cv3505, 2019 WL 4392794, at *3–4 (S.D.N.Y. Sept. 13, 2019) (discussing the need to be careful about finding infringement based on unprotectable materials but ultimately concluding that similarities should be judged based on total concept and feel).

91. Suntrust Bank v. Houghton Mifflin Co., 136 F. Supp. 2d 1357, 1368 (N.D. Ga. 2001) (applying this test), *vacated*, 268 F.3 1257 (11th Cir. 2001).

92. *Id.* at 1370.

can be found,[93] and even determining whether "supersubstantial similarity" is manifest (among others).[94] Part II provides empirical evidence about what courts actually do.

Finally, under this second prong of the substantial similarity test, courts generally exclude expert testimony.[95] As we have seen, however, some circuits allow it, depending on their overall approach to substantial similarity. But according to most courts, improper appropriation must be judged from the perspective of the ordinary observer or some other similar iteration, as discussed above. Yet it is clear that this exclusion poses problems, at least with respect to some subject matter. For instance, is it reasonable to think that an ordinary observer is capable of assessing whether substantial similarities exist between two software programs?[96] Or can an ordinary listener effectively judge differences in music, where musicologists are often much better equipped to distinguish among which elements are deserving of protection and which are not?[97] In fact, some scholars have argued that allowing for expert testimony makes more sense on the second prong of the overall substantial similarity test, not the first.[98] Be that as it may, courts still typically indicate that the second prong is not a place for experts, even if they do sometimes allow them under particular categories of works such as software.[99]

Yet even when courts formally forbid experts from opining on the improper appropriation prong of the test, their influence is often felt on that prong, too. For instance, if an expert opines on the factual copying question, those opinions may ultimately affect the court's assessment of the improper appropriation question as well, even if just informally.[100] In fact, it is quite clear that in many cases, courts allow the factual copying question to influence their assessment of the improper appropriation question. For instance, courts will sometimes conduct both inquiries separately but include in the improper appropriation analysis statements indicating that the evidence suggests that the defendant copied from the plaintiff's work.[101]

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93. *Id.*

94. TransWestern Pub. Co. LP v. Multimedia Mktg. Assocs., Inc., 133 F.3d 773, 776 (10th Cir. 1998) (applying this test).

95. Lemley, *supra* note 6 (summarizing this general prohibition).

96. James J. Marcellino, *Expert Witnesses in Software Copyright Infringement Actions*, 6 COMPUT./L. J. 35 (1985) (discussing the role of experts in software copyright cases).

97. Michael Der Manuelian, Note, *The Role of the Expert Witness in Music Copyright Infringement Cases*, 57 FORDHAM L. REV. 127 (1988) (discussing the role of experts in music cases).

98. *See* Lemley, *supra* note 6 (making this argument); Samuelson, *supra* note 6 (similar).

99. *See, e.g.*, Berkic v. Crichton, 761 F.2d 1289, 1292 (9th Cir. 1985) (specifying that expert testimony is inappropriate in determining whether two works are substantially similar in expression and reserving that question to the ordinary, reasonable person).

100. Samuelson, *supra* note 6, at 1844.

101. *See, e.g.*, Ronald Mayotte & Assocs. v. MGC Bldg. Co., 885 F. Supp. 148 (E.D. Mich. 1994) (indicating that substantial similarity in the improper appropriation sense is demonstrated by showing similarities that suggest copying).

As discussed above, that statement shouldn't be relevant to the improper appropriation prong of the test if courts are keeping the inquiries analytically distinct.

C. Studies and Criticisms of the Substantial Similarity Test

As alluded to above, the substantial similarity test has received significant attention over the years. Yet significant empirical evidence about the test is currently lacking. This Section briefly reviews the limited empirical evidence about the test, as well as some of the test's main criticisms more generally.

1. Empirical Studies of the Substantial Similarity Test

The earliest empirical studies about the substantial similarity test come from two students at the Michigan State University College of Law. In 2011, law student Katherine Lippman sought to collect all appealed cases between 1923 and 2011 that resulted in a decision on substantial similarity.[102] She then analyzed these 234 cases along a number of dimensions, including win rates, subject matter, procedural posture, circuit, year, and tests used.[103] A subsequent student, Eric Rogers, used the same data to analyze a number of related questions.[104] For ease of reference, I will call these two studies the "Lippman study" because they both rely on the same data set.

One obvious limitation of the Lippman study is its focus on appealed decisions. The vast majority of district court decisions never make their way to an appellate court. Indeed, despite the importance of appellate decisions, much of the day-to-day work within the U.S. court system, including with respect to substantial similarity, happens at the district court level.[105] The Lippman study simply excludes these key data points, largely because the study authors recognized that trying to evaluate district court decisions would take too much time.[106] Consequently, as Professor Matthew Sag notes, any conclusions that Lippman and Rogers draw are "very likely to be simply an artifact of only looking at decisions that were appealed."[107]

Furthermore, the Lippman study adopts a highly stylized view of the substantial similarity tests, only coding for a limited number of the tests courts use and conducting its statistical analysis based on three broad groupings—the ordinary observer, the extrinsic-intrinsic, and the abstraction-filtration-comparison tests.[108] Confining oneself to these three categories, and ignoring many named subtests in coding, may have made sense in terms of simplifying the analysis. But it does not

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102. Lippman, *supra* note 7.
103. *Id.*
104. Rogers, *supra* note 7.
105. Matthew Sag, *Empirical Studies of Copyright Litigation*, *in* 2 RESEARCH HANDBOOK ON THE ECONOMICS OF INTELLECTUAL PROPERTY LAW 511, 520–21 (Peter S. Menell & David L. Schwartz eds., 2019).
106. *Id.*
107. *Id.* at 521.
108. Lippman, *supra* note 7, at 526–33.

track the plethora of tests that courts employ. What the Lippman study seems to do is either ignore other named variants or lump them under one of these three labels. At the outset of the study, in fact, Lippman indicates that she simply removed from consideration cases that employed the "striking similarity" test, but without any explanation as to why.[109] As we shall see, this subtest has gained steam under both prongs of the overall substantial similarity test. That simplifying route is also the approach that leading copyright treatises take, upon which the Lippman study relies.[110] But it is not, in the end, the approach that a more robust empirical study must take.

More recently, Professor Daryl Lim sought to build on the Lippman study by analyzing several hundred appellate and district court decisions issued between 2010 and 2019.[111] Importantly, the Lim study includes all district court opinions available via Westlaw during this time period, thus potentially helping address a major gap in the Lippman study.[112] In Part II below, we address discrepancies between our study's number of district court opinions and Lim's number. Lim seeks to show that plaintiff win rates have plummeted over the years, a trend the Lippman study suggests, and indicates that this trend largely owes to the fact that courts increasingly wrest substantial similarity determinations from juries by deciding the cases on pre-trial motions.[113] Our data tell a more nuanced story, as detailed in Part II below.

The Lim study also tracks procedural posture, tests used, subject matter, year, circuit, and whether the plaintiff and defendants were rivals.[114] Yet similar to the Lippman study, the Lim study codes for tests used in one of the three same groups.[115] To reiterate, however, these three groups oversimplify what courts actually do. As this Article will show, courts regularly employ multiple subtests within the overall substantial similarity test. By contrast, the Lim study suggests that very few courts actually employ more than one test in a given opinion. That conclusion does align with the results of this study's review of over 1,000 substantial similarity opinions, which indicate that courts regularly rely on multiple subtests in a given case. This discrepancy almost certainly owes to the fact that the Lim study, similar to the Lippman study, lumps tests used under one of only three labels.

That simplification makes some sense in terms of ease of coding. But it also obscures the actual complexity of which subtests courts rely on and how any of these three tests purport to operate. For instance, the ordinary observer test is far from uniform. As discussed above, sometimes the observer is "more discerning" when the copyrighted work includes unprotectable material mixed with protectable

109. *Id.* at 535.
110. *Id.* (relying on the Osterberg treatise's classification system for subtests).
111. *See generally* Lim, *supra* note 8.
112. *Id.*
113. *Id.*
114. *Id.*
115. *Id.*

expression;[116] sometimes the ordinary observer focuses on both quantitative and qualitative similarities between the two works;[117] sometimes the observer is not so ordinary because they are part of the "intended audience" for the work;[118] sometimes the ordinary observer is explicitly "reasonable," while other times not;[119] and sometimes the ordinary observer focuses on the total concept and feel of the similarities between the two works, and other times not.[120] These are only a few examples of how the ordinary observer is hardly a single, uniform test. Instead, that hypothetical person often relies on a number of other, additional subtests and considerations. The other two categories upon which the Lim study relies—the extrinsic/intrinsic and abstraction/filtration/comparison tests—are also far from uniform, and when courts rely on them, they often do so in tandem with other subtests.[121] In short, generalizing all the varieties of tests as one of three grossly oversimplifies matters in a way that buries important details about how courts make substantial similarity determinations.

Furthermore, neither the Lippman nor the Lim studies track copyright limitations that the court used in rendering its substantial similarity decision. But one of the key, perhaps most important, parts of many substantial similarity cases is determining the scope of copyright in the work and to what extent copyright limitations apply.[122] In fact, in many cases that this study examined, courts didn't even explicitly apply a substantial similarity test, instead focusing solely on copyright limitations such as the idea-expression dichotomy in rendering their decisions.[123] This study tracks this and other important metrics for the first time.

Another source of controversy relating to the substantial similarity test is the use of experts.[124] As discussed above, courts typically suggest that expert witnesses are only permitted to help the court decide whether factual copying has occurred, but not whether improper appropriation has (with some exceptions for subject matter like software and music). Despite this conventional wisdom, none of the existing empirical studies track the ways in which courts use expert testimony. This study does so, with results on this question detailed in the next Part.

Many other studies critique the substantial similarity test on a number of other grounds.[125] These critiques include that courts use confusing language that makes

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116. Boisson v. Banian, Ltd., 273 F.3d 262, 272 (2d Cir. 2001).

117. Castle Rock Ent., Inc. v. Carol Pub. Grp., Inc., 150 F.3d 132, 138 (2d Cir. 1998).

118. Dawson v. Hinshaw Music Inc., 905 F.2d 731, 736 (4th Cir. 1990).

119. T-Peg, Inc. v. Vt. Timber Works, Inc., 459 F.3d 97, 112 (1st Cir. 2006).

120. Francescatti v. Germanotta, No. 11 CV 5270, 2014 WL 2767231, at *11 (N.D. Ill. June 17, 2014).

121. *See, e.g.*, YS Built LLC v. Ya Hsing Chiang Cind Huang, 739 F. App'x 414, 416 (9th Cir. 2018) (indicating that the intrinsic part of the extrinsic-intrinsic test includes an assessment of the "total concept and feel" of the similarities from the vantage point of the "ordinary, reasonable person"). *See generally* Lim, *supra* note 8, at 611.

122. *See supra* Section I.B.2.

123. *See infra* Part II.

124. *See* Lemley, *supra* note 6 (discussing the confusing use of experts in the substantial similarity test).

125. *See generally* sources cited *supra* note 6.

the test difficult to understand and apply, including use of the term "substantial similarity" for the overall test and other components of the test as well.[126] Other critiques focus on the way in which courts determine whether protectable expression has been copied, with some suggesting that too frequently courts find infringement based on unprotectable elements.[127] Other scholars have argued that the test is "meaningless" and should simply be replaced with fair use.[128] And yet others have questioned whether courts are capable of applying the test to specialized domains such as software.[129] But again, these studies rely on conventional wisdom about how courts apply the test. That conventional wisdom lacks a solid empirical basis. And similar to the Lippman and Lim studies, that conventional wisdom often relies on an overly simplistic view of how the analysis works. In reality, the test is far more complicated than that simplified view, as the next Part details.

II. EMPIRICAL RESULTS

This study includes 1,005 opinions in which the court purported to reach a decision based on the substantial similarity test. These opinions come from both district and appellate courts. They also come from every circuit.

These opinions are a random sample of the entire set of substantial similarity opinions available on Westlaw between the years 1978 and 2020. We chose January 1, 1978, as the study's starting point because it is the effective date of the modern Copyright Act.[130] The final day of our data collection, April 27, 2020, was our study's cutoff date. To obtain the cases, we searched Westlaw based on certain parameters meant to capture any possible substantial similarity opinion.[131] This initial search yielded 6,613 cases. We then eliminated 245 cases that were decided prior to our study's start date. Knowing that we would be unable to manually code

126. *See, e.g.*, Samuelson, *supra* note 6, at 1825 (noting this confusing use of terminology).

127. *See, e.g.*, Sprigman & Hedrik, *supra* note 6 (arguing that juries may frequently find infringement based on unprotectable elements because of the ways in which courts articulate the infringement standard).

128. Amy B. Cohen, *Masking Copyright Decisionmaking: The Meaningless of Substantial Similarity*, 20 U.C. DAVIS L. REV. 719 (1987).

129. *See* David Nimmer, Richard L. Bernacchi & Gary N. Frischling, *A Structured Approach to Analyzing the Substantial Similarity of Computer Software in Copyright Infringement Cases*, 20 ARIZ. ST. L.J. 625 (1988).

130. Geoffrey P. Hull, *Copyright Act of 1976 (1976)*, FIRST AMEND. ENCYC. (2009), https://www.mtsu.edu/first-amendment/article/1072/copyright-act-of-1976 [https://perma.cc/SM6G-S6ES].

131. The specific search we used is as follows: On Westlaw, first select "Cases," then select "All Federal Cases." We then inputted the following into the search bar: adv: (copyright and infring! and ("substantial similarity" or "substantially similar") and AD(bef 04-27-2020)). This yielded 6,613 results at the time. Note that performing this identical search today will yield more results than when we conducted it simply because Westlaw constantly updates its database as it finds more cases. For instance, at the time of my composing this footnote, the new total with this exact same search is 6,627, which means Westlaw has discovered fourteen more cases in the year and a half since our initial search. As we will discuss, this discrepancy has no relevance regarding the representativeness of our sample, particularly since we chose to randomize the results and review a sample of them.

all of the remaining 6,368 cases, we randomly selected 2,070 for review.[132] Proper randomization ensures that each case has an equal chance of being selected, thereby helping eliminate selection and other forms of bias from the data.[133] Randomization is also key for drawing statistical inferences about the full population on the basis of the sample.[134] While there is no magical size for random samples, the large size of our sample is, by all accounts, more than adequate.[135] In fact, for many purposes, an adequate sample is in the range of hundreds. Not only is our sample large, but it also constitutes 32.5% of the underlying population, further lending credence to our assumption that any results stemming from the sample are representative of the entire body of case law in this area.

Of the 2,070 decisions we reviewed, 1,096 were false positives—they mentioned the relevant search terms but were not cases in which the court actually applied and reached a decision on the basis of the substantial similarity test.[136] After excluding these false positives, we were left with 974 true positives, or decisions meeting our parameters. These cases yielded 1,005 opinions. Note that opinions are the unit of analysis in this study, not cases. Most cases in our study only include one opinion. But sometimes courts issued multiple opinions in a single case. For instance, a court might apply one analysis to a purportedly infringing work and a different one to another. Furthermore, in appellate decisions, judges sometimes dissented based on how to apply the substantial similarity test. This study includes these opinions as separate opinions. Overall, our study includes around four times as many opinions as existing studies do, or, we estimate, about one-third of all substantial similarity opinions available on Westlaw.[137]

We recorded data about each opinion. These data include:

- The court level, the circuit in which the court resides, and the decision's year;
- The subject matter of both plaintiff and defendant, and whether there was a change in subject matter as between the parties;

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132. The randomization process we used is as follows: We first assigned each opinion an ID number. This number corresponded to the chronological order of the opinions as they came from Westlaw. Then, working in Google Sheets, we paired each ID number to a random number generated from the "rand()" function. The "rand()" function returns a number between 0 and 1 that has about 15 decimal places. It is a pseudo-random number that is cryptographically impossible to predict and therefore serves as functionally random. Once the IDs were paired with the random numbers, each opinion was then sorted by the random numbers from least to greatest, which generated a new order from top to bottom.

133. K.P. Suresh, *An Overview of Randomization Techniques: An Unbiased Assessment of Outcome in Clinical Research*, 4 J. HUM. REPROD. SCIS., no. 1, Jan.–Apr. 2011, at 8, 8.

134. WILLIAM R. SHADISH, THOMAS D. COOK & DONALD T. CAMPBELL, EXPERIMENTAL AND QUASI-EXPERIMENTAL DESIGNS FOR GENERALIZED CAUSAL INFERENCE 471–72 (2002).

135. DAVID COPE, FUNDAMENTALS OF STATISTICAL ANALYSIS 28–29 (2005).

136. Because the initial sample was randomly selected, we can assume that of the 4,298 cases we did not review, roughly 2,278 of them were also false positives.

137. *See supra* text accompanying note 131.

- Which specific copyright rights, beyond the right of reproduction, the court invoked in its analysis;
- Whether the court addressed factual copying and, if it did, what subtests it mentioned and used, whether it relied on expert evidence, and the outcome;
- Whether the court addressed improper appropriation and, if it did, what subtests it mentioned and used, what copyright limitations it used in its analysis, whether it relied on expert evidence, and the outcome;
- What circuits, Supreme Court decisions, and other materials the court cited in rendering its substantial similarity analysis; and
- The opinion's overall outcome.

The coding process was rigorous. Each coder went through training, including digesting a 24-page coding manual and an hour-long training video with specific instructions about how to address thorny issues. Each coder was also required to code a sample of cases with me, and coders that failed to meet a certain threshold were excluded from the study. Each opinion was coded independently by at least two separate coders. When discrepancies arose between coders, the relevant parties had to reconcile those discrepancies, with my aid as needed. I personally coded nearly a thousand opinions as part of the study.

The approach we chose has some obvious limitations. First, the population of cases available through Westlaw is not the entire population of relevant cases, since Westlaw uses discretion in which cases it includes in its service.[138] Westlaw excludes some cases from its database, and it may never find yet others.[139] Furthermore, no combination of available databases is likely to change this result, because judges simply choose not to make some of their opinions available.[140] Hence, while our random sample may approximate the population of cases available through Westlaw, it is worth noting that Westlaw's selection of cases may not be representative of substantial similarity cases more generally.

Second, as with previous studies, this study's data may not be representative of all substantial similarity opinions because of our chosen search parameters. While we attempted to make our search as broad as possible to capture all substantial similarity opinions available on Westlaw, it's possible that our search parameters still left some cases out. After much experimentation, we feel confident that our initial search was broad enough to capture any significant opinions, but we acknowledge the possibility that our search did not perfectly capture everything available on Westlaw. The opinions in this study's dataset also do not include cases before 1978.

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138. *See generally* Ellen Platt, *Unpublished vs. Unreported: What's the Difference?*, 5 PERSPS.: TEACHING LEGAL RSCH & WRITING 26, 26–27 (1996) (discussing how Westlaw and Lexis choose which opinions go into their databases).

139. *Id.*

140. *Id.* at 27.

This latter limitation may be a virtue in some respects, however, because modern substantial similarity case law already typically incorporates older relevant cases and focuses our attention on current trends.

Third, researchers have found opinions to be "rare events in the litigation process."[141] Courts frequently dispose of issues in cases without writing an opinion for a variety of reasons, with procedural posture being one of the most important factors that influences whether a court issues an opinion.[142] Furthermore, cases often settle, even if earlier litigation events outside of a formal opinion influenced that outcome. Indeed, judges rarely write opinions in cases that settle or which result in a jury verdict.[143] Hence, even if our data are representative of opinions available through Westlaw, the reality remains that courts frequently dispose of issues in substantial similarity litigation in ways that our data, with its focus on opinions, fail to capture. Our data may be representative of the thinking that goes into these other types of dispositions. But we have not structured our study to account for them.

Despite these limitations, opinions published through services like Westlaw remain the best indication of how courts define important copyright law doctrines.[144] Though expanding our study to cover non-opinion dispositions in substantial similarity litigation would undoubtedly reveal additional useful information, we have focused this study on opinions to highlight courts' revealed preferences in resolving substantial similarity matters. The following Sections examine the results.

Finally, our reports are undoubtedly subject to some amount of endogeneity and selection effects. For instance, because the sample includes so many opinions from the Second Circuit and Ninth Circuit, those circuits' tendencies will often strongly influence, and even dictate, some of the overall outcomes. Below we note several instances where these types of issues are present. And in some instances, we attempt to report results separately to address such concerns, while also acknowledging that future research is necessary to fully account for them.

A. Results

1. Overall Metrics

Of this study's 1,005 opinions, 854, or about 85%, come from district courts, while 151 (15%) of the opinions are from appellate courts. Figure 1 provides a visualization of this distribution.

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141. David A. Hoffman, Alan J. Izenman & Jeffrey R. Lidicker, *Docketology, District Courts, and Doctrine*, 85 WASH. U. L. REV. 681, 682 (2007).

142. *Id.*

143. Allen Redlich, *Who Will Litigate Constitutional Issues for the Poor?*, 19 HASTINGS CONST. L.Q. 745, 766 n.135 (1992) (indicating that judges rarely write opinions in cases that settle or that end in jury verdicts).

144. Neil Weinstock Netanel, *Making Sense of Fair Use*, 15 LEWIS & CLARK L. REV. 715, 733 (2011).

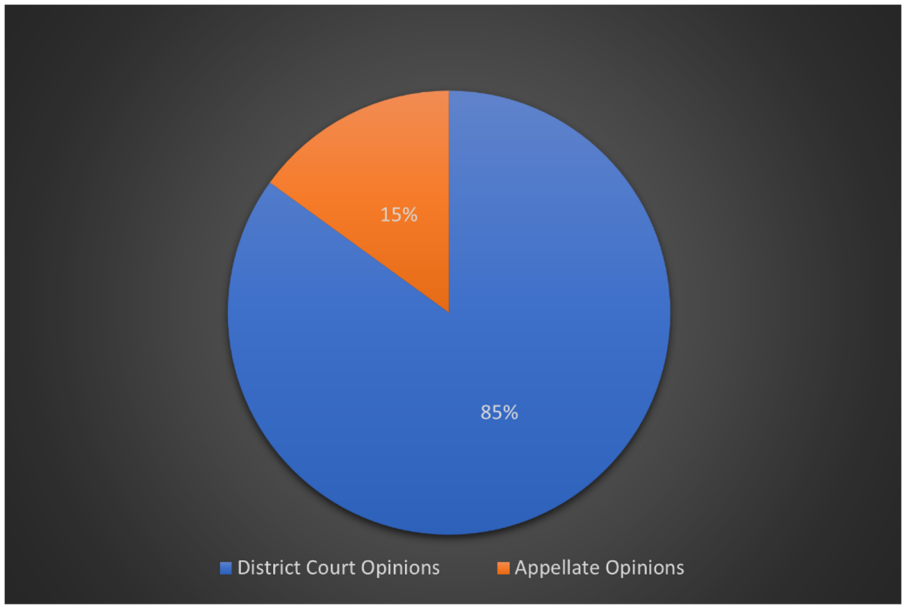

Figure 1. Opinions by Court Level

Which circuits are the most active in deciding substantial similarity cases? Commentators widely consider the Second Circuit and Ninth Circuit as the leaders in copyright law, and other empirical studies dealing with different copyright topics have typically found courts within these circuits to be the most active on copyright issues.[145] This study's results reaffirm previous studies on this score. Opinions from courts within the Ninth Circuit constituted around 29% of our sample. Courts within the Second Circuit were just behind the Ninth Circuit, or a little over 23% of our sample. Behind these two copyright behemoths, the next most active circuit is the Eleventh Circuit, accounting for 9% of opinions in our study.

Beyond that, our sample's opinions are distributed somewhat evenly among the remaining circuits, with the exceptions of the Courts of Appeal for the Federal Circuit and the District of Columbia Circuit, which examine copyright law issues only infrequently. These distributions among the circuits are similar enough to other copyright law studies addressing the entire population of cases as to provide additional confidence that our sample is representative of the Westlaw population of cases dealing with substantial similarity. Figure 2 below provides a visual depiction of these metrics. Figure 3 further illustrates the distribution within each circuit between district court decisions and appellate decisions. In this study, the

145. *See, e.g.*, Barton Beebe, *An Empirical Study of U.S. Copyright Fair Use Opinions, 1978–2005*, 156 U. PA. L. REV. 549, 554 (2008) (discussing the dominance of the Ninth and Second Circuit in fair use case law).

Ninth Circuit is the leader in the absolute number of both appellate and district court decisions.

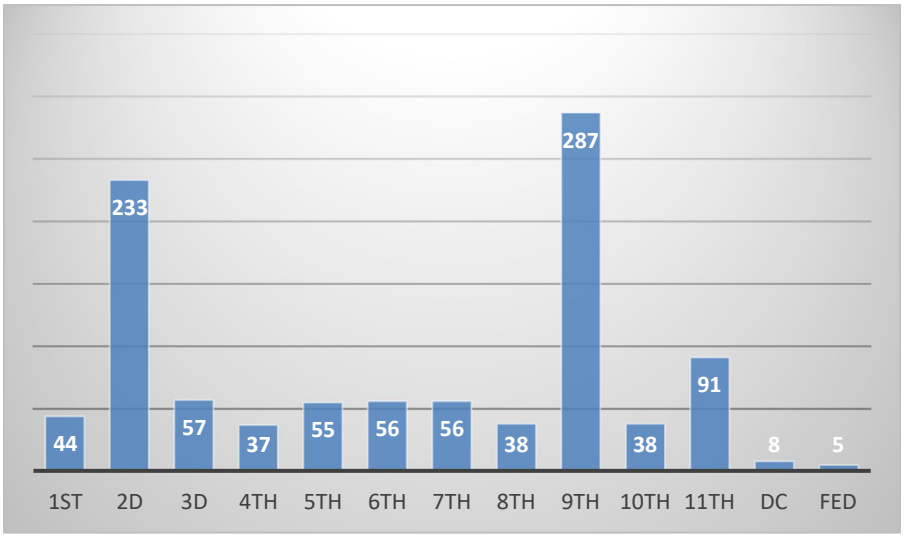

Figure 2. Total Number of Opinions Per Circuit

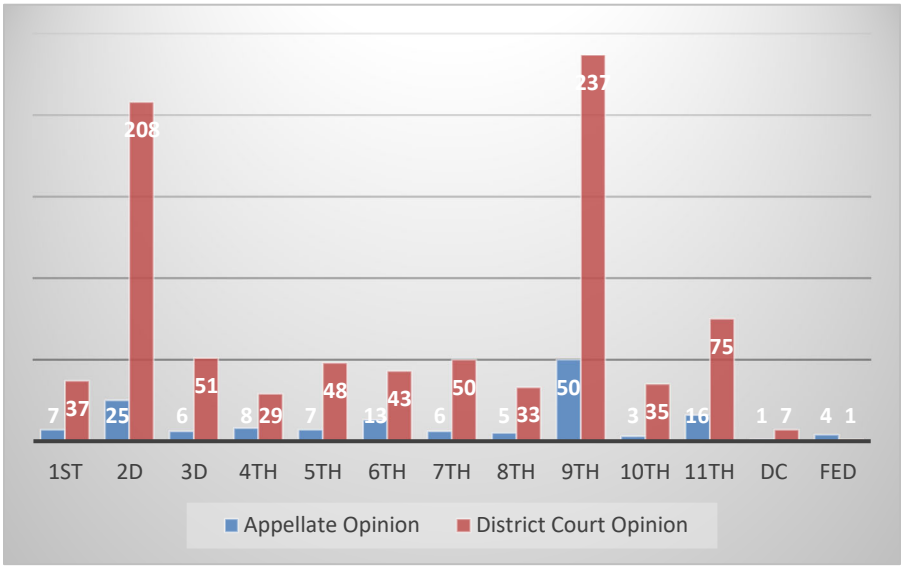

Figure 3. Appellate and District Court Opinions Per Circuit

In this study, we have chosen to report many of our results without distinguishing between appellate and district court decisions in order to highlight a number of important overall substantial similarity metrics. However, given that appellate and district court decisions often vary in significant ways, in future

research we hope to examine to what extent our results differ when distinguishing between appellate and district court opinions.

2. Distribution Over Time

The opinions' distribution across time raises several important issues. Starting in 1978 through 2000, the number of opinions in any given year averaged a little over twelve. In the following two decades—exclusive of 2020, for which we only had partial data—the number of opinions in our sample in any given year averaged about thirty-eight, more than three times the average from the previous two decades. In fact, after 2006, the lowest number of opinions in our sample came in 2012, with thirty-three opinions. Eleven of the remaining thirteen years had between forty-one and fifty-eight opinions, with the other two years having thirty-four opinions.

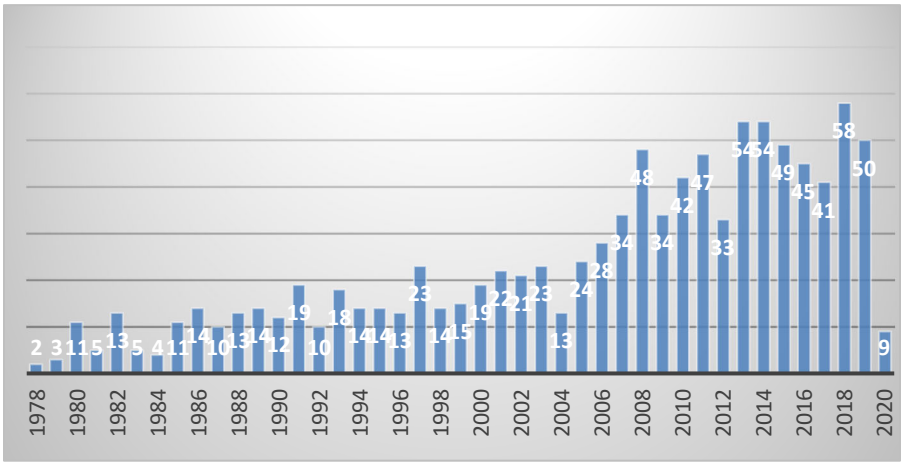

Figure 4. Opinions Over Time

A significant reason for this increase in opinions over time owes to greater access to unreported decisions after 2005. The E-Government Act of 2002 required federal courts to maintain websites where the public could access each of their written opinions.[146] This requirement became effective April 17, 2005.[147] Opinions are defined as "any document issued by a judge or judges of the court . . . that sets forth a reasoned explanation for a court's decision."[148] Before this Act, most opinions that made their way onto Westlaw or Lexis were "published" opinions, or opinions that judges, in their discretion, requested that the West Company include

146. U.S. GOV'T ACCOUNTABILITY OFF., GAO-05-12, ELECTRONIC GOVERNMENT: FEDERAL AGENCIES HAVE MADE PROGRESS IMPLEMENTING THE E-GOVERNMENT ACT OF 2002 31 (2004), https://www.gao.gov/assets/gao-05-12.pdf [https://perma.cc/KY5Z-FHZS].

147. *Id.* at 32.

148. Hoffman, Izenman & Lidicker, *supra* note 141at 693.

in one of their printed case reporters.[149] Typically, judges designated an opinion as worthy of being published if the opinion established a new legal doctrine or modified an existing one, involved a legal issue of public interest, criticized existing law, or resolved a conflict of authority.[150] But after the Act, Westlaw and Lexis began to hoover up both published and unpublished cases.

In fact, prior to 2005, twenty-one of the twenty-seven years in our sample featured more published than unpublished opinions. Furthermore, four of the years in which unpublished decisions outnumbered published ones prior to 2005 occurred in the years immediately before 2005. A few of those years, 2003–2004, seem to represent courts beginning to implement the E-Government Act. Several others, 1998–1999, may be simply artifacts of at least some courts proactively moving into the digital age. In any event, from 2005 onwards, unpublished opinions always outnumber published opinions in our sample, and they typically do so by more than double. Figure 5 below depicts these trends visually.

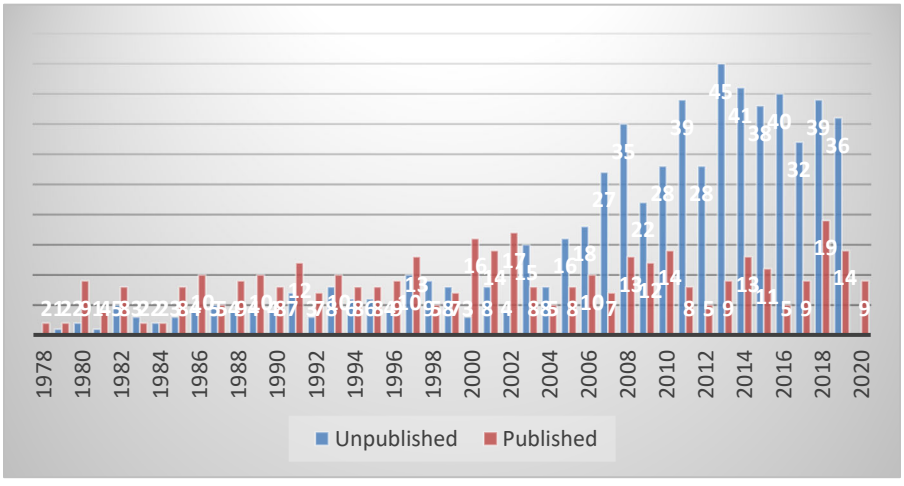

Figure 5. Published v. Unpublished Opinions Over Time

While greater inclusion of unpublished opinions explains a significant amount of the increase in the overall distribution of opinions in our sample, other factors appear to play a role as well. As Figure 5 depicts, the number of published cases has steadily grown over time. Between 1978 and 1999, our sample includes on average a little over seven published cases per year. From 2000 to 2019, the last complete year of our data, our sample includes an average of a little over eleven published cases per year, representing a nearly sixty percent increase between the two time periods. We are unable to perform a similar analysis with respect to unpublished

149. *Id.*

150. Lauren K. Robel, *The Myth of the Disposable Opinion: Unpublished Opinions and Government Litigants in the United States Courts of Appeals*, 87 MICH. L. REV. 940, 941 n.3 (1989).

opinions, as prior to 2005, inclusion of unpublished cases on Westlaw was somewhat sporadic. However, we do note that between 2005 and 2019, the last complete year of our data, the number of unpublished opinions steadily grew. In 2019, for instance, our sample includes more than double the number of unpublished opinions as in 2005, and the number of unpublished decisions in 2019 is roughly equal to the average number of unpublished opinions during the 2010–2019 timeframe.

Hence, it appears that the number of substantial similarity opinions has increased over time, both with respect to reported opinions and unreported opinions. What explains this? Part of it may be that, over time, Westlaw has simply become more vigilant in adding substantial similarity opinions to its database. This explanation is wanting, however, because Westlaw has always had access to published cases, and our sample suggests reported substantial similarity opinions have increased, particularly since 2000.

At least with respect to published opinions, another explanation may center on court discretion. Because courts enjoy significant discretion in determining whether to publish their opinions, it may be the case that courts are simply exercising that discretion more frequently in favor of having their opinions published in the modern era. Yet the opposite intuition seems just as likely, and perhaps even more so—because nearly all court opinions are now publicly available and effectively published as part of Westlaw or Lexis, judges may feel less motivated to publish their opinions as part of federal reporters. This may be particularly so since, in the modern era, more courts than in the past allow for citations to unreported opinions.[151]

A more promising explanation for the increase in substantial similarity opinions is the internet.[152] The early 2000s saw society accelerate the development and mass adoption of internet technologies.[153] As more artistic works became available to increasingly larger numbers of people, those works were more likely to become a source of inspiration and copying. This is particularly so because internet technologies made not only access to those works easier, but copying of them as

151. *See, e.g.*, Robert Timothy Reagan, *Citing Unpublished Federal Appellate Opinions Issued Before 2007*, 241 F.R.D. 328, 328 (2007) (discussing growing allowance of citing unpublished opinions post-2007).

152. *See generally* Matthew Sag, *IP Litigation in U.S. District Courts: 1994–2014*, 101 IOWA L. REV. 1065 (2016) (discussing how internet technologies have increased copyright infringement suits generally).

153. Madeleine Hillyer, *How Has Technology Changed—and Changed Us—in the Past 20 Years?*, WORLD ECON. F. (Nov. 18, 2020), https://www.weforum.org/agenda/2020/11/heres-how-technology-has-changed-and-changed-us-over-the-past-20-years/ [https://perma.cc/X2WY-GUUD] (discussing the rise and adoption of internet technologies).

well.[154] The apparent growth in substantial similarity litigation is likely attributable at least in part to these societal developments.

This reality does not mean that such claims always have merit, though. Others have recently pointed to data suggesting that plaintiffs rarely win substantial similarity cases, particularly in this day and age, and they propose a number of reforms aimed at solving this perceived problem.[155] Yet it is quite possible that much of the inspiration and copying occurring in the last two decades pertains to unprotectable elements of those works. Or it could be that much of that copying is a "fair use," an important defense to claims of copyright infringement that can allow for parodies, satire, and other uses of copyrighted works.[156] In fact, while some internet technologies such as peer-to-peer file-sharing networks have allowed for much wholesale copying, other technologies have provided creative persons with tools to remix, mashup, and otherwise alter preexisting works in ways that often fall short of copyright infringement.[157]

Indeed, another possible contributor to the rise in substantial similarity litigation is simply a twist on the access issue. Because internet technologies mean that potential plaintiffs have greater access to the world around them, they are in a better position to perceive similarities between things they've created and the creations of others. In bygone eras, it was more difficult to know what others were working on because more of society operated in isolation. How might someone perceive similarities between their photo and that of another if they didn't have ready access to it on the internet? Today, such obstacles to access are greatly diminished. The result, as this study's evidence suggests, is more squabbling over who owns what.

Yet again, many of the perceived similarities may often relate to unprotectable material, constitute fair use, or be the product of independent creation, each of which is a defense to a claim of copyright infringement.[158] Simultaneous, independent creativity is typical, after all.[159] Of course, in other cases, it is undoubtedly true that a plaintiff's increased access to the world around them leads to their discovery of a party infringing their copyright rights, a result that may not have occurred in bygone eras. In short, it seems likely that internet technologies contributed to a rise in substantial similarity litigation by increasing access to both potential plaintiffs' and defendants' creative works.

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154. DAN GILLMOR, WE THE MEDIA: GRASSROOTS JOURNALISM BY THE PEOPLE, FOR THE PEOPLE 23–43 (2006) (discussing the read-write internet that enabled not only passive consumption of content, but creation thereof).

155. Lim, *supra* note 8.

156. Clark D. Asay, Arielle Sloan & Dean Sobczak, *Is Transformative Use Eating the World?*, 61 B.C. L. REV. 905 (2020).

157. Peter S. Menell, *Adapting Copyright for the Mashup Generation*, 164 U. PA. L. REV. 441, 487 (2016).

158. Asay, *supra* note 44.

159. Mark A. Lemley, *The Myth of the Sole Inventor*, 110 MICH. L. REV. 709, 711 (2012).

Another possible indication that the boom in substantial similarity opinions owes to the growth of the internet is evident in the rise of Ninth Circuit opinions. As discussed above, the Second Circuit and Ninth Circuit dominate our study, with the vast majority of opinions issuing from one or the other circuit. In fact, Ninth Circuit opinions outnumber those coming from the Second Circuit by 23%. But that Ninth Circuit dominance is mostly a recent development. During the 1978–1999 timeframe, the Second Circuit had well over double the number of published opinions as the Ninth Circuit. Between 2000–2019, the Second Circuit and Ninth Circuit drew nearly even in terms of published opinions in our sample, with the Ninth Circuit nearly doubling its output when compared with the 1978–1999 period. With respect to unpublished opinions, the Ninth Circuit exploded during 2000–2019, issuing nearly three times as many such opinions per year as courts within the Second Circuit.

While this growth within the Ninth Circuit may have many causes, a significant one is likely to be the digital age's advent. The Ninth Circuit is home to some of the most important technology hubs in the world, including Silicon Valley, Seattle, and San Diego. It is also home to Los Angeles, where many of the most important entertainment and music companies are found. As these two worlds collided, increases in substantial similarity litigation appear to have been one of the results.

3. Procedural Posture

Another point of interest among commentators is procedural posture. Professor Daryl Lim suggests that plaintiffs in substantial similarity opinions rarely win in this day and age, in large part because courts decide an increasing number of cases on pretrial motions, rather than sending the matter to a jury, where plaintiffs may face better odds of winning their cases.[160]

Our data tell a more nuanced story. Figure 6 below depicts the seven most frequent procedural postures found in our opinions. These seven procedural postures cover over 96% of our opinions.

160. Lim, *supra* note 8.

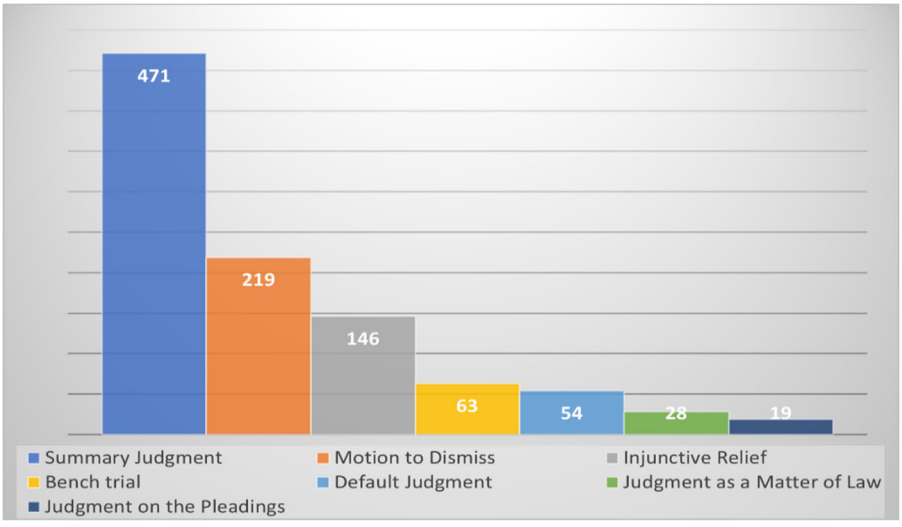

Figure 6. Most Frequent Procedural Posture Types

As is clear, motions for summary judgment are the most frequent procedural posture in our sample, appearing in nearly 47% of our opinions. Motions to dismiss are a distant second, constituting about 22% of the procedural postures at issue. Injunctive relief accounts for a little under 15% of opinions, coming in a close third place. The remaining four procedural postures occur relatively infrequently, ranging from around 6% (bench trials) to a little under 2% (judgment on the pleadings) of the opinions.

Of course, as discussed above, services like Westlaw tell an incomplete story. Issued opinions certainly don't tell us everything we'd like to know about substantial similarity litigation, including the frequency and fate of jury trials. Our data only included three jury trial opinions, an unsurprising result since judges rarely issue opinions in connection with jury verdicts. Motions for summary judgment, and even motions to dismiss, are prime candidates for written opinions and thus inclusion by Westlaw. Our data's results in this regard, therefore, confirm what we'd expect. And while it would be ideal to use additional data sources, including jury empanelment and settlement rates by circuit, to make up for this gap, doing so is simply beyond the scope of this current project.

The prevalence of procedural postures over time highlights some interesting trends. Figure 7 looks at the four most popular procedural posture types in our data and compares those to the sample's total number of opinions. One interesting thing to note is that both bench trial and injunction opinions have remained stagnant over time, despite the total number of opinions increasing. Again, the large increase starting around 2005 significantly owes to Westlaw beginning to have greater access to unpublished opinions. One might then expect bench trial and injunction opinions to also increase starting around 2005, unless such opinions are typically published.

But as discussed above, even published opinions appear to have increased some since 2005. Despite this, both bench trials and injunctions have remained stagnant, suggesting that, over time, both procedural posture types have decreased as a proportion of total opinions.

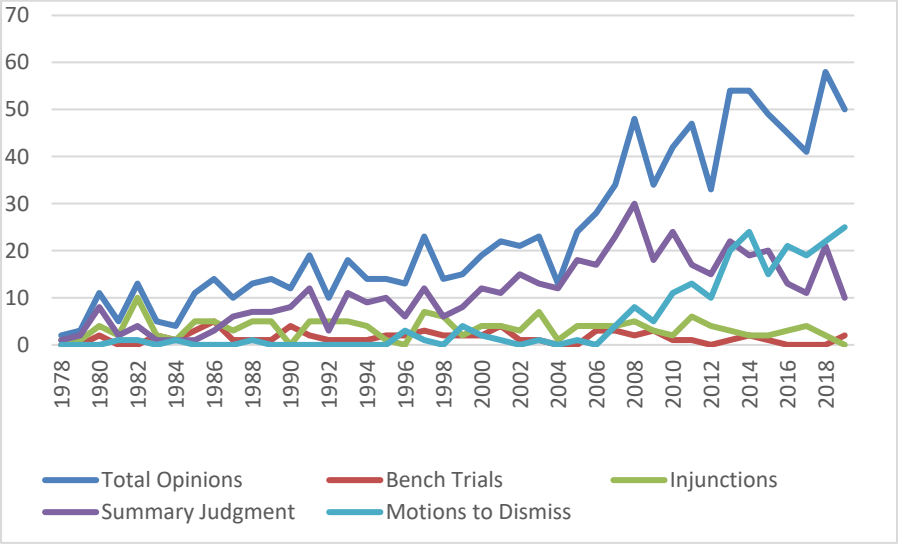

Figure 7. Procedural Posture Types Over Time

The data on motions for summary judgment and motions to dismiss tell a different story. Motions for summary judgment appear to be a relatively stable proportion of the total opinions, largely tracking the total number of opinions over time, at least until around 2010, when they appear to begin decreasing as a proportion of total opinions. Hence, while it is difficult to draw firm conclusions because of the lack of access to unpublished decisions prior to 2005, our data suggest that motions for summary judgment have remained a relatively constant staple of substantial similarity opinions over time—and may have even decreased some in recent years.

Motions to dismiss, on the other hand, went from almost never being used earlier in our sample to becoming one of the most frequent motions in play starting around 2007. Motions to dismiss rivaled and even surpassed the number of motions for summary judgment starting in 2014–2015. What explains this sea change?

One clear factor is Westlaw's access to unpublished decisions after 2005. Our data indicate that the vast majority of our motion to dismiss opinions are unpublished (a little over 76%)—both before and after 2005. Hence, once Westlaw obtained greater access to these types of opinions, their numbers skyrocketed. In fact, once motions to dismiss start increasing in 2007, they largely track the increase

in total opinions after 2005, suggesting that much of their increase owes to Westlaw's greater inclusion of unpublished decisions.

Another clear factor leading to their rise are the U.S. Supreme Court's decisions in *Ashcroft v. Iqbal*[161] and *Bell Atlantic Corp. v. Twombly*.[162] In *Twombly*, the Supreme Court held that complaints must go beyond simply reciting the elements of a cause of action.[163] Instead, they must also include enough factual material that, if taken as true, would support the legal theory underlying the complaint.[164] In *Iqbal*, the Supreme Court elaborated on its decision in *Twombly*, holding that whether a complaint is plausible turns not on whether the alleged conduct is unlikely, but on whether the complaint contains sufficient nonconclusory factual allegations to support a reasonable inference that the complained of conduct occurred.[165]

These two decisions effectively raised pleadings standards and thus made motions challenging the pleadings' sufficiency, including motions to dismiss, much more likely. For defendants, motions to dismiss are particularly attractive because, if successful, they avoid the high costs of discovery that come in later stages of litigation. Hence, while greater access to unpublished decisions contributed to the rise of motions to dismiss, the 2009 *Twombly/Iqbal* standard also almost certainly boosted their numbers as well. In fact, as alluded to above, motions to dismiss displaced summary judgment motions as the top procedural posture type starting in about 2015.

A final factor contributing to the rise of motions to dismiss may also simply be a growing willingness by courts to decide substantial similarity at earlier stages. This growing willingness may be related to *Twombly/Iqbal*—by requiring plaintiffs to allege more nonconclusory factual material in support of their legal claims, the *Twombly/Iqbal* standard may provide courts with a better basis for assessing the claims. But even aside from this, in many cases courts may simply believe they are in a good position to compare the works and decide the case accordingly. Courts often indicate that while deciding substantial similarity on a motion to dismiss is discouraged, courts are perfectly capable of doing so when they have the two works before them and can just as easily make the comparison as anyone else.[166] This thinking parallels a movement among courts when deciding substantial similarity on motions for summary judgment—courts frequently pay lip service to the notion that deciding substantial similarity on motions for summary judgment should not be the norm, but then pursue the exception because they believe they are in a good

161. 556 U.S. 662 (2009).

162. 550 U.S. 544 (2007).

163. Caroline N. Mitchell, Ashcroft v. Iqbal*: The New Federal Pleading Standard*, JONES DAY: INSIGHTS (June 2009), https://www.jonesday.com/en/insights/2009/06/iashcroft-v-iqbali-the-new-federal-pleading-standard [https://perma.cc/7PMJ-LYVV].

164. *Id.*

165. *Id.*

166. Tanksley v. Daniels, 902 F.3d 165, 171–72 (3d Cir. 2018) (discussing this move).

position to decide the matter with the two works before them (and thus an absence of material factual disputes).[167]

Similarly, in motion to dismiss scenarios, courts frequently indicate that they are able to dismiss the claim because the two works simply aren't similar upon comparison, or, to the extent they exhibit similarities, those similarities only concern unprotectable elements.[168] Or, conversely, the court may deny the defendant's motion to dismiss because the two works, upon comparison, are substantially similar enough to survive the motion at this point in the litigation.[169] Of course, some take issue with such judicial maneuvering, arguing that those questions properly belong to the jury and that this trend of courts deciding things earlier means that plaintiffs rarely win.[170] Yet courts routinely decide copyrightability questions as matters of law,[171] and when the works before the court are easy enough to compare in light of what is and isn't protectable, courts appear to have embraced deciding substantial similarity on motions to dismiss. Indeed, if discovery will contribute little to the analysis because it will add nothing to the comparison of the two works, it seems that motions to dismiss provide a more efficient mechanism for deciding many cases than summary judgment motions since the latter occur after the expensive discovery process.

Furthermore, while our data do suggest that defendants have greater success with motions to dismiss than plaintiffs do, these results may have sound reasons—for instance, defendants may be more likely to bring motions to dismiss in situations where the complaint is relatively frivolous. Overall, our win rate results, discussed in greater detail below, suggest a more even match than what other scholars have suggested.

4. Subject Matter

This study also tracked the subject matter involved in the opinions. We collected information about the original media in which the plaintiff's work appeared, as well as the media into which the defendant copied or otherwise exercised rights in the work. We also noted whether a shift in medium occurred as between the plaintiff's and defendant's use because such data may provide insights about whether shifts in medium affect any part of the substantial similarity inquiry.

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167. *Id.* (discussing this trend in the substantial similarity context as well).

168. *Id.* (affirming such a decision from the district court).

169. I.C. *ex rel.* Solovsky v. Delta Galil USA, 135 F. Supp. 3d 196, 216 (S.D.N.Y. 2015) (denying the defendant's motion to dismiss based on possible similarities between the two works).

170. Lim, *supra* note 8.

171. Brief of 44 Intellectual Property Law Scholars as Amici Curiae Supporting Defendant-Appellee at 17–18, SAS Inst. Inc. v. World Programming Ltd., No. 2021-1542 (Fed. Cir. Aug. 30, 2021).

We relied on similar categories of media as previous empirical copyright studies.[172] We distinguished between seven categories as follows:

- Music, including lyrics
- Non-virtual, two-dimensional textual material such as books and other literature
- Non-virtual, two-dimensional images, graphics, illustrations, and other artwork such as photographs and paintings
- Performances, such as plays or radio broadcasts
- Technological media, including video games, software, websites, and other internet technology, including virtual text and artwork
- Three-dimensional objects, such as sculptures and architectural works (but not the plans)
- Videos, including traditional television, film, and movies

Note that copyrighted works can and sometimes do fall into multiple categories simultaneously. For instance, a plaintiff may sue a defendant claiming that the defendant copied from the plaintiff's architectural plans as well as their completed homes. Such a scenario may implicate both non-virtual, two-dimensional artwork because of the plans and a three-dimensional work because of the completed homes. In such cases, we attempted to capture all relevant subject matters, for both defendants and plaintiffs.

The most popular plaintiff media are non-virtual, two-dimensional text and artwork. Plaintiffs bring claims for infringement of non-virtual artwork in a little over 39% of our opinions and of non-virtual textual material in about 29% of the opinions. The next closest categories are technological and three-dimensional media, which appear in a little over 16% and 15% of plaintiffs' claims, respectively. Music and film, which attract much attention in the world of copyright more generally, make up a small percentage of the media that plaintiffs assert against defendants. Music only appears in a little over 8% of plaintiffs' claims, and film and television appear in a little less than 8% of plaintiffs' claims.

172. Beebe, *supra* note 145.

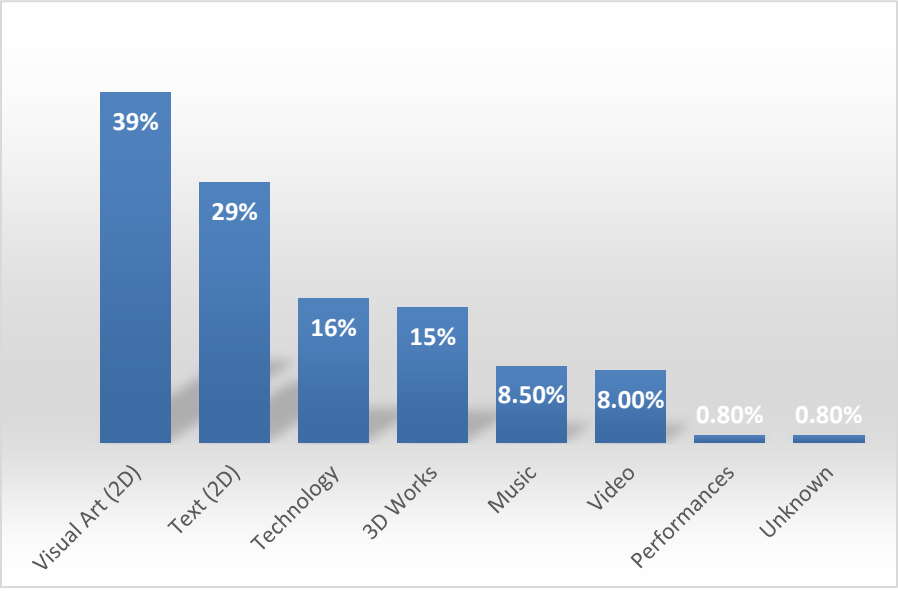

Figure 8. Most Popular Plaintiff Subject Matter

One likely reason for the paucity of music and film substantial similarity claims is that those types of works are often copied verbatim, such that a substantial similarity analysis becomes unnecessary. For instance, even if court dockets are full of file-sharing litigation involving copyrighted works such as movies and songs, such cases will typically not involve the substantial similarity test because the wholesale, identical copying involved makes such an inquiry unnecessary.

One important item to monitor going forward is whether music substantial similarity litigation increases subsequent to the Ninth Circuit's *Blurred Lines* decision.[173] Some commentators believe the *Blurred Lines* court expanded the scope of protection in musical works and thereby made it more likely that litigants will pursue claims against others.[174] That decision occurred in 2018, so it is impossible to identify trends at this point. Our data on music cases, as depicted below, show that opinions involving music began increasing somewhat in the late 2000s, though that increase mostly coincides with the increased access to unpublished decisions after 2005. After 2018, our study only includes one full year, and that year, 2019, saw no dramatic rise in music cases. Time will tell whether substantial similarity cases involving music increase. If they do, such increases will defy the norm, as music substantial similarity opinions historically have been relatively infrequent. In fact, we might expect a greater increase of music opinions after 2005 given the

173. 885 F.3d 1150 (9th Cir. 2018); Edwin F. McPherson, *Crushing Creativity: The Blurred Lines Case and Its Aftermath*, 92 S. CAL. L. REV. POSTSCRIPT 67 (2018).

174. *Id.*

greater access to unpublished opinions during that time. Instead, the number of music opinions does not appear to have significantly changed, suggesting music opinions may be growing even rarer than in previous decades.

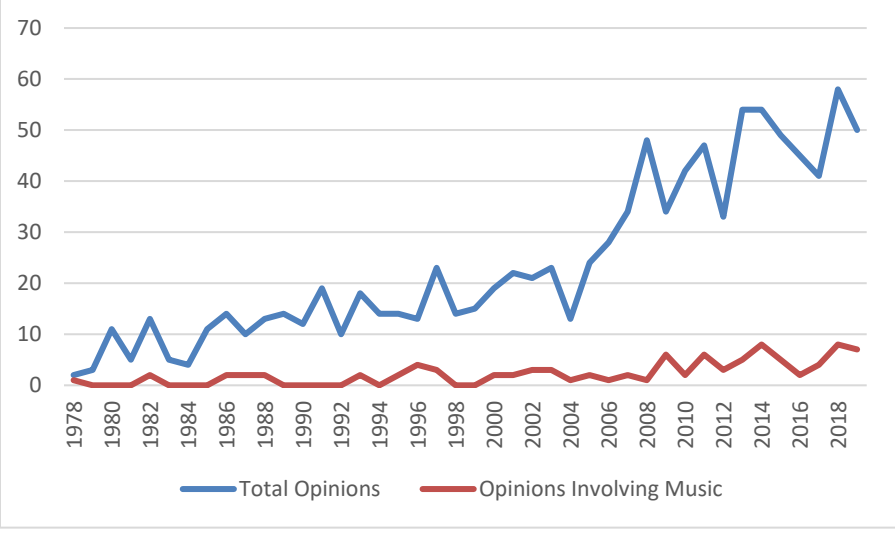

Figure 9. Music Opinions Over Time

On the defendants' side of things, the data highlight several interesting trends. First, defendants made greater use of technological media in their purportedly infringing activities than plaintiffs did in initially fixing their works. The increase is not dramatic, though, with nearly 20% of defendants using technological media compared to about 16% of plaintiffs. In our data, technological media opinions have increased over the years, but that increase mostly tracks the overall growth of substantial similarity litigation after 2005. This suggests that the proportion of technological media opinions to all substantial similarity opinions may not have actually increased. However, it's impossible to say without access to unpublished decisions prior to 2005.

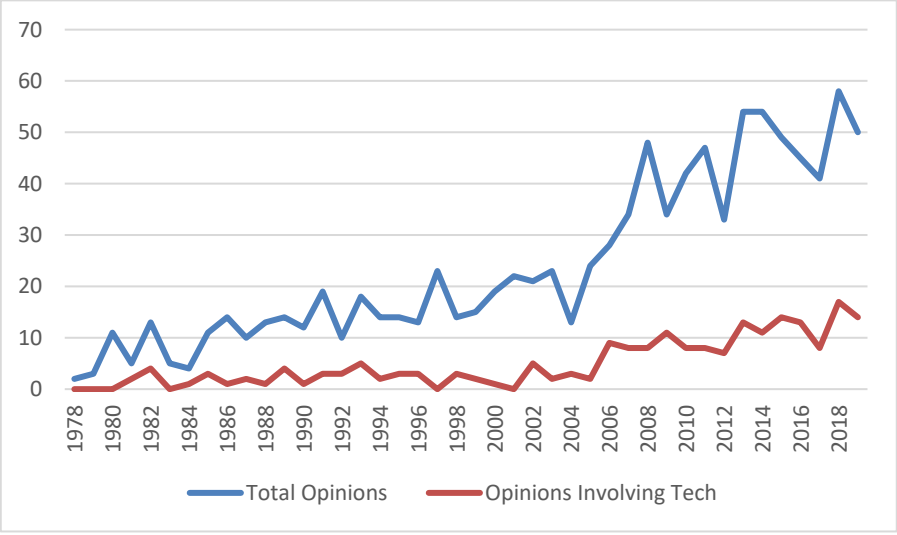

Figure 10. Technology Opinions Over Time

Nonetheless, the Ninth Circuit does appear to be leading the way in writing opinions that involve technological media. Nearly 80% of our opinions that involve plaintiffs asserting technological media occurred from 2000 onwards, and about 38% of those opinions come from the Ninth Circuit. Around 75% of our opinions that involve defendants using technological media also occurred after 2000, and nearly 37% of those opinions emanate from courts in the Ninth Circuit. By contrast, the Second Circuit, the other traditional copyright heavyweight, only claims about 9% of opinions that involve plaintiffs asserting technological media and about 6% of opinions that involve defendants using technological media since 2000. Consistent with our discussion above, the Ninth Circuit's proximity to technological innovation means that a significant chunk of its substantial similarity docket involves technological copyright disputes.

The most dramatic change as between the media of plaintiffs and defendants relates to the category of video, which includes television, film, and movies. Recall that this category constitutes only a small share of the types of works plaintiffs assert against defendants—slightly less than 8% of the time. However, defendants used television or movies in around 19% of opinions in their purportedly infringing activities, more than doubling the percentage for plaintiffs.

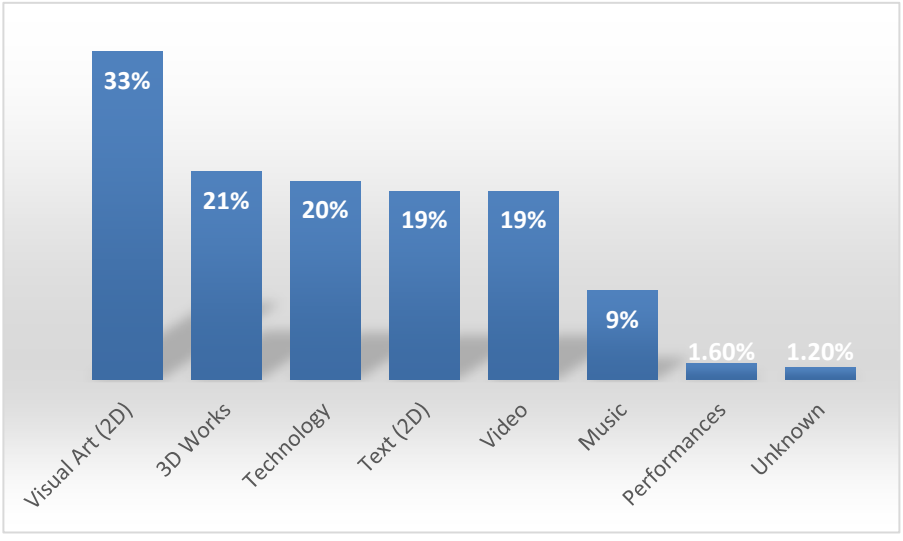

Figure 11. Most Popular Defendant Subject Matter

What explains this discrepancy? The biggest reason for this difference is that many of the sample's opinions involve suits by authors of screenplays, books, and other types of literature against movie and television show producers, wherein they claim that those defendants had access to their works and that their copyrighted work and the defendant's audiovisual work share substantial similarities.[175] Many such suits involve aspiring authors sending their scripts to multiple film producers or having a conversation with a senior executive of a movie studio. About 40% of our opinions that include a medium shift—meaning that the defendant's use involved at least one different medium than that in which the plaintiff's work was originally fixed—involved a shift from textual material into audiovisual material. This reality is also partially reflected in the 10% decrease between plaintiffs' and defendants' use of textual material. Despite these types of situations being somewhat common in substantial similarity litigation, plaintiffs rarely win them, emerging victorious in such cases only about 10% of the time.

Overall, medium shifts were more the exception than the rule. Only about 28% of our opinions involved the defendant using the plaintiff's work in a different medium. In later Subsections, we assess to what extent shifts in medium affect case outcomes, if at all.

175. *See, e.g.*, Jones v. CBS, Inc., 733 F. Supp. 748, 750–51 (S.D.N.Y. 1990) (providing one such example of a script writer claiming a TV series infringed his script).

5. Rights Invoked

We also tracked to what extent courts explicitly invoke rights beyond the reproduction right in their substantial similarity analyses. As discussed above, copyright law grants owners multiple rights in their works, including the rights of reproduction, distribution, public performance, public display, and the right to prepare derivative works. For any of these rights to be infringed, a party must make use of a substantially similar copy of the copyrighted work in their infringing activities. Yet, at least anecdotally, courts rarely seem to specifically discuss these rights in their substantial similarity opinions, instead relying on "copying" as shorthand for any and all of these rights. In this study, we sought to assess how frequently courts explicitly discuss each of these rights by recording when courts specifically do so within the portion of the opinion dealing with the substantial similarity test. Note that the reproduction right is essentially always in play, since "copying" and that right are interchangeable. Hence, our analysis focused on courts mentioning or discussing the remaining rights.

The most frequently discussed right outside of reproduction is the right to prepare derivative works, which shows up in about 15% of our opinions. The distribution right is a close second, discussed in about 14% of our opinions. The public display and performance rights rarely explicitly appear in substantial similarity opinions, only being mentioned in about 6% and a little under 3% of the opinions, respectively. In this case, the data confirms the anecdotal evidence: "copying" is typically shorthand for any and all of a copyright owner's rights, with courts only infrequently explicitly discussing any of the rights beyond the right to reproduction.

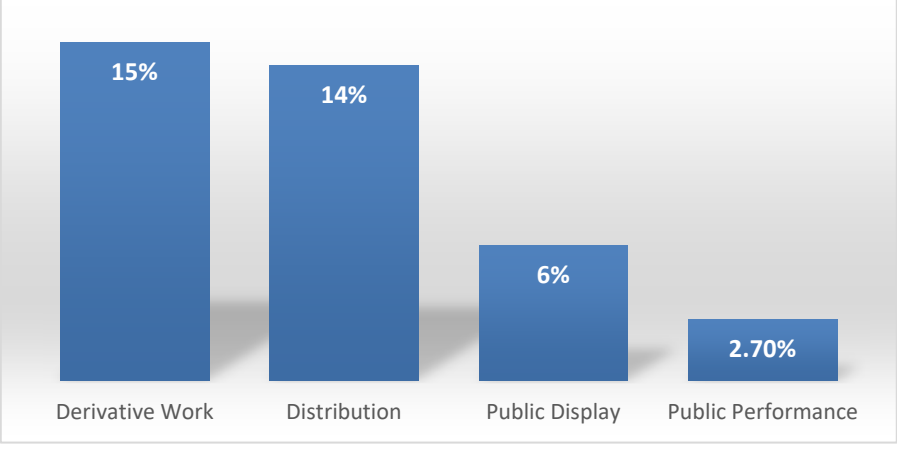

Figure 12. Rights Invoked

This does not mean that these other rights are not in play in substantial similarity opinions; indeed, courts' descriptions of the defendants' activities

frequently suggest that rights beyond the reproduction right are in question. Despite this reality, most courts see no need to specifically address these other rights, with only about a quarter specifying rights beyond the reproduction right.

For several reasons, we think this lack of precision is a mistake. First, the rights that a copyright owner receives are distinct for a reason, meaning that a one-size-fits-all approach to substantial similarity makes little sense. While each of these rights may share some similarities in terms of when a party violates it, each right also has its own set of conditions that a plaintiff must prove for that particular right to be infringed. For instance, the derivative work right includes a statutory definition.[176] For a defendant to infringe the derivative work right, that defendant must not only make use of a substantially similar copy of the plaintiff's work, but also one that fits within the statutory definition of a derivative work.[177] As another example, courts should arguably apply the de minimis exception—which excuses infringement when it is deemed insignificant—differently depending on whether the rights in question include a publicity element.[178] Public displays and performances must be "public" for those rights to be violated, whereas unauthorized reproductions and/or derivative works of copyright works need not be.[179] What counts as de minimis almost certainly differs depending on which rights are in question and whether the use must be public. When courts limit their analyses to assessing whether a defendant made a substantially similar copy, they fail to specify and grapple with any additional requirements of copyright's other rights.

Second, whether a defendant has infringed upon distinct rights can play a role in the types of remedies a plaintiff receives. The scope of injunctions may differ depending on which rights a defendant has violated, for instance. Whether a defendant has violated a single right or multiple rights can also impact damages awards, including whether a court chooses the low or high end of a statutory damages award under copyright law.[180]

Finally, using copying as shorthand for all a copyright owner's rights is not true to the statute and promotes misunderstandings about what copyright protects. While not everyone reads judicial opinions, students of the law, courts, and others interested in it certainly do. Furthermore, even those that don't read judicial opinions are affected by them. When courts are imprecise about the rights of

176. Pamela Samuelson, *The Quest for a Sound Conception of Copyright's Derivative Work Right*, 101 GEO. L.J. 1505, 1508–09 (2013).

177. *Id.*

178. Oren Bracha, *Not De Minimis: (Improper) Appropriation in Copyright*, 68 AM. U. L. REV. 139 (2018) (discussing the de minimis doctrine).

179. *What Rights Do Copyright Owners Have?*, COPYRIGHT ALL., https://copyrightalliance.org/faqs/what-rights-copyright-owners-have/ [https://perma.cc/W4XE-5DDC] (last visited Oct. 17, 2022) (distinguishing between the rights on this basis).

180. Pamela Samuelson & Tara Wheatland, *Statutory Damages in Copyright Law: A Remedy in Need of Reform*, 51 WM. & MARY L. REV. 439, 485–88 (2009) (discussing the significant variation in how courts go about determining statutory damages).

copyright owners, readers of their opinions often come away with an understanding of copyright law that simply does not match copyright law's realities. And those misunderstandings can ultimately negatively affect society at large.

6. Prong One

As discussed, prong one of the overall substantial similarity test asks whether the defendant actually took from the plaintiff's work in creating their own. Traditionally, because direct evidence of such copying is rare, courts rely on circumstantial evidence to assess whether the plaintiff has satisfied this element.[181] Typically, this evidence comes in the form of defendant's access to the plaintiff's work and similarities between the two works that suggest copying has, in fact, occurred.[182] There are a variety of other subtests and factors that courts look at in assessing prong one. But most commentators and courts suggest the access-plus-similarity formula is the predominant means for answering the factual copying question.[183]

Yet the data tell a different story. Our data indicate that most courts address prong one simply by assessing the defendant's probable access to the plaintiff's work. Slightly over 52% of opinions with a decision on prong one used access as the sole subtest for determining prong one's outcome—these courts decided prong one solely as a matter of whether the defendant had access to the plaintiff's work or not. More generally, a little over 81% of the opinions that purported to decide prong one used access as a subtest within the overall prong-one analysis.[184] Conversely, only a little over 25% of the opinions assessed some form of similarity in determining prong one, whether it be striking, probative, substantial, or some other denomination for similarities between the two works. Note that the percentages for different types of similarities depicted below are not cumulative—some courts applied multiple such subtests within the same opinion. In short, very few courts actually follow the traditional formula of addressing prong one. More often than not, they simply stop after addressing the access question.

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181. NIMMER & NIMMER, *supra* note 2 (differentiating between factual copying and actionable copying and indicating that "copying as a factual matter typically depends on proof of access and probative similarity"); PATRY, *supra* note 4, at §§ 9:17, 9:19 (indicating that "[a]ccess is not the same as, or a substitute for, proof of copying" and indicating that some proof of copying, in addition to access, is necessary to prove factual copying).

182. NIMMER & NIMMER, *supra* note 2 (explaining that "[t]o establish copying, a plaintiff must show (1) access, and (2) substantial similarity between the works").

183. PATRY, *supra* note 4, at § 9:19 ("evidence circumstantially establishing access and copying is necessary").

184. This includes 807 opinions from our sample. We arrived at 807 opinions by first excluding all opinions that did not mention prong one. That brought the total from 1,005 to 929 opinions. We then excluded from that subset opinions that did not reach a decision on prong one, bringing the total to 807 opinions.

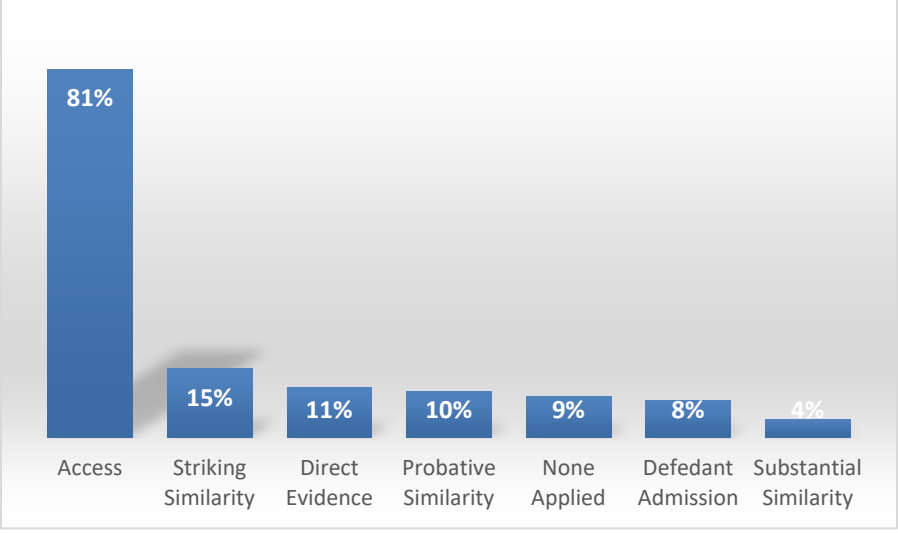

Figure 13. Most Frequently Applied Prong One Subtests

Why might most opinions stop after considering only access? One important reason relates to our coding decisions. In the vast majority of substantial similarity opinions, courts mention access plus substantial similarity as the formula for determining copyright infringement. One might read this formulation as meaning substantial similarity is part of the prong-one analysis as well. Yet our data indicate the substantial similarity subtest is actually applied under prong one in only about 4% of opinions. We think the decision to not count "substantial similarity" under prong one when courts articulate this typical formulation without following it through is justified because courts in such opinions don't actually assess substantial similarity in determining whether factual copying occurred. Instead, they typically simply jump to assessing whether the defendant's copying was substantially similar as to protectable elements. We believe this latter analysis belongs under prong two, not prong one.

Indeed, many courts suggest that the substantial or probative similarity question is redundant with the work courts do under prong two. As one court put it, probative similarity is subsumed within the substantial similarity question under prong two, such that the court need not duplicate its efforts under both prongs.[185] Hence, even though courts may frequently mention various types of similarity when

185. Whitehead v. Paramount Pictures Corp., 53 F. Supp. 2d 38, 46 n.3 (D.D.C. 1999) ("Since 'a showing of substantial similarity will necessarily include the lesser showing of probative similarity,' the Court will follow those courts that combine the copying and infringement inquiries and require only a showing of substantial similarity and access." (citing Twin Peaks Prods., Inc. v. Pubs. Int'l, Ltd., 996 F.2d 1366, 1372 n.1 (2d Cir. 1993))).

formulating the test for prong one, the reality is that they rarely actually assess similarity under that prong.

Another obvious reason for the strong (and often exclusive) focus on access under prong one is the influence of the Ninth Circuit. The Ninth Circuit has largely made prong one solely about access.[186] Hence, the large number of Ninth Circuit opinions in our dataset skew the percentages towards an access-only prong one. For instance, 65% of Ninth Circuit opinions used access as their sole test under prong one, while 89% of Ninth Circuit opinions used access as a subtest within prong one. Both percentages are higher than the percentages for the dataset as a whole. Yet even when leaving out Ninth Circuit opinions, courts in other circuits still frequently rely on access under prong one (and often exclusively). For instance, 47% of non-Ninth Circuit opinions used access as the sole test under prong one, while 78% of non-Ninth Circuit opinions used access as a subtest under prong one. Hence, while these percentages come down some when excluding Ninth Circuit opinions, they still come quite close to the overall percentages. And they continue to point to access as the most popular and often exclusive means for resolving prong-one questions.

Yet such an approach poses a number of problems. First, the two inquiries are actually quite different: under prong one, the court is trying to determine whether the defendant actually took from the plaintiff's work, whereas under prong two, the court addresses whether what was taken was a substantial quantum of protectable material. Prong two becomes irrelevant if plaintiffs can't establish prong one, and addressing prong one solely as a matter of access is inadequate. For instance, if prong one focuses solely on access, courts would always be able to answer prong one in the affirmative when the plaintiff is, say, Disney—even if the defendant didn't actually copy from any of Disney's works—because Disney's works are so widely accessible.

This leads to the second problem. When courts conflate the two inquiries, they run the risk of finding infringement simply because the two works share similarities that suggest that the defendant copied from the plaintiff. Yet as we know, copyright does not forbid all copying—and even encourages it in certain instances.[187] This type of conflated reasoning, in fact, runs rampant throughout substantial similarity opinions—courts often suggest in their prong-two analyses that it is clear, based on the similarities between the two works, that the defendant copied from the plaintiff, when in reality the courts should be focused on whether those similarities relate to

186. Shyamkrishna Balganesh & Peter S. Menell, *Proving Copying*, 64 WM. & MARY L. REV. (forthcoming 2022) (manuscript at 35–36), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4058485 [https://perma.cc/WQT8-99QU] (indicating that the Ninth Circuit erroneously adopted access as its prong one test).

187. Google LLC v. Oracle Am., Inc., 141 S. Ct. 1183, 1208 (2021) (finding Google's copying of certain aspects of Oracle's API a fair use because, among other reasons, the use brought significant societal benefits).

protectable expression.[188] In order to maintain a balanced copyright approach, courts must ensure that the two inquiries of actual copying and improper appropriation remain distinct, even if short-circuiting the inquiries promises greater judicial efficiencies.

One reason assessing similarity under prong one may have become disfavored is because its use under that prong has created significant confusion over the years. As discussed earlier, the term "substantial similarity" can show up under both prongs one and two and is also often used as the name of the overall test. For this reason, the Second Circuit in particular has insisted that when courts assess similarity under prong one, they should use the term "probative similarity" to avoid confusion.[189] Yet courts have largely ignored this plea, with only about 14% of our opinions mentioning the term and about 10% actually applying the probative similarity subtest when determining whether actual copying occurred. Second Circuit courts were more likely than courts from other circuits to mention and use the probative similarity subtest. But despite being the original adopter of the term, Second Circuit courts explicitly did so only 25% and a little over 15% of the time, respectively.

Our data analysis under prong one reveals additional interesting insights. Courts frequently maintain that it is quite rare to have access to direct evidence, including admissions from the defendant, in rendering prong-one decisions. Our data confirm that direct evidence certainly isn't the primary means by which courts determine whether factual copying has occurred—as discussed above, that belongs to the question of access. But when including defendant admissions as a form of direct evidence, courts rely on claims of direct evidence in a little over 17% of our opinions, which suggests it is not as rare of a form of resolving prong-one questions as courts make it out to be. Indeed, while courts assess direct evidence less frequently than they assess similarities between the two works under prong one, the difference does not appear to be that significant: forms of similarity are assessed under prong one in only about one quarter of the opinions in our study.

How often do plaintiffs win on prong one? Our data suggest they enjoy considerable success under this part of the test, emerging victorious in about 76% of opinions where the court purported to make some sort of decision under prong one of the overall substantial similarity test.[190] Defendants, meanwhile, only received good news under prong one in less than a quarter of our opinions, or 24%

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188. *See, e.g.*, Steinberg v. Columbia Pictures Indus., Inc., 663 F. Supp. 706, 710–11 n.2 (S.D.N.Y. 1987) (noting that "the typeface is not a subject of copyright, but the similarity reinforces the impression that defendants copied plaintiff's illustration," despite only assessing improper appropriation in the case at hand).

189. Ringgold v. Black Ent. Television, Inc., 126 F.3d 70, 74 (2d Cir. 1997).

190. We excluded from this analysis two appellate decisions that remanded the case, as it was unclear in those cases whether defendant or plaintiff had "won" based on our coding. That left us with 805 opinions after only counting opinions which purported to decide prong one. For about twelve of these decisions, the outcome was unclear, but we left these decisions in as part of our calculations.

of the time. These results may come as a surprise to some, considering that other studies have found plaintiffs rarely win substantial similarity cases.[191] We have more to say on that question below. But the primary reason we believe that plaintiffs enjoy so much success under the factual copying prong is that it has mostly become a question of access. And though access is not always a foregone conclusion, courts do not seem to wrestle with it as much as they could. Instead, the data suggest they mostly dispense with the access question in plaintiffs' favor in order to get to the weightier matters under prong two.

7. Prong Two

As discussed above, under prong two of the substantial similarity test, courts assess whether the defendant's copying amounts to an improper taking because the defendant took too much—a substantial amount of—protectible material. The reader may quickly infer that where that line lies is difficult to know. As Judge Learned Hand famously put it, "Nobody has ever been able to fix that boundary, and nobody ever can."[192] Despite this difficulty, courts use a plethora of subtests to assess the question.

Commentators and previous empirical studies have typically lumped together the many different subtests under three main headings.[193] This makes some sense, as in many cases it seems likely that courts do, in fact, mean the same thing even when using slightly different vernacular to describe the subtest they are applying. For instance, one of the main categories of subtests is the so-called "ordinary observer" test, where courts say that whether the defendant took too much protectable material is to be determined from the perspective of the ordinary observer.[194] Yet often courts that employ the ordinary observer test also indicate that it is the perspective of the "layperson" that matters.[195] In reality, the court in such a scenario probably means the same thing when using both terms in the same opinion, and coding for just "ordinary observer" certainly makes some sense.

However, it isn't always clear whether courts mean the same thing when using language that varies. Courts in the Ninth Circuit often say that it is from the perspective of the "ordinary reasonable person" that substantial similarity is to be assessed, at least within one part of the Ninth Circuit's approach.[196] Is the ordinary reasonable person different than the ordinary observer? The word "reasonable" may be implicit in the "ordinary observer" standard, but it is far from

191. Lim, *supra* note 8.

192. Nichols v. Universal Pictures Corp., 45 F.2d 119, 121 (2d Cir. 1930).

193. Lim, *supra* note 8; Rogers, *supra* note 7.

194. Coquico, Inc. v. Rodríguez-Miranda, 562 F.3d 62, 67–68 (1st Cir. 2009).

195. Charles W. Ross Builder, Inc. v. Olsen Fine Home Bldg., LLC, 827 F. Supp. 2d 607, 620–21 (E.D. Va. 2011) (employing both terms, seemingly as part of the same term), *vacated*, 496 F. App'x 314 (4th Cir. 2012).

196. Aliotti v. R. Dakin & Co., 831 F.2d 898, 900 (9th Cir. 1987).

clear—ordinary people may often be unreasonable, at least on average. Furthermore, some courts rely on the "reasonable observer" standard, which omits the "ordinary" qualifier.[197] Again, an ordinary reasonable observer might be average in terms of reasonableness, while a reasonable observer might simply be objectively reasonable.

Furthermore, in the statutory context, well-established cannons of interpreting legal texts suggest it is inappropriate to ignore material variations in wording.[198] While interpreting statutes is a different exercise than interpreting judicial opinions, arguably some of the same reasoning holds true: with respect to judicial reasoning, when variations arise, we should acknowledge and construe them in light of their context and ordinary meaning, among other possible considerations.[199] Courts consist of well-trained lawyers. Presumably they use care in writing their opinions, and if their substantial similarity discussions include differently named subtests, it seems reasonable to assume there is a reason for it beyond simple sloppiness—though sloppiness certainly at times is in play. For these reasons, we tried to individually track each variation of subtest as its own, rather than lumping them all together under general headings. We believe this approach better reflects what the courts do, rather than what we think they do or what we may wish them to do.

Which are the most popular subtests for resolving prong two? The most prevalent is the ordinary observer test, with courts using it in nearly 28% of the opinions that purported to reach a decision on prong two.[200] Unsurprisingly, that percentage rises to 47% when considering only Second Circuit opinions, where the ordinary observer standard originated. Furthermore, the large number of Second Circuit opinions in the study clearly boosts the subtest's overall high percentage of use.

197. *See, e.g.*, Vitacco v. Toastmaster, Inc., 17 F.3d 1444 (Fed. Cir. 1994) (employing the "reasonable person" standard).

198. *See generally* ANTONIN SCALIA & BRYAN A. GARNER, READING LAW: THE INTERPRETATION OF LEGAL TEXTS (2012).

199. *Id.*

200. After excluding opinions where the court did not attempt to resolve prong two, we were left with 925 opinions.

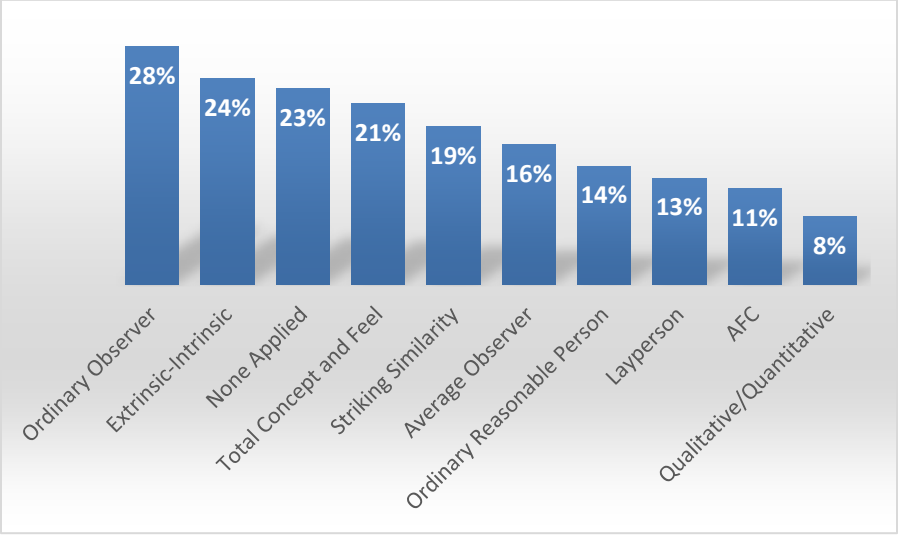

Figure 14. Most Frequently Applied Prong Two Subtests

Despite being the most popular, however, the ordinary observer's relatively low adoption percentage suggests that, compared to prong one, prong two is characterized by significant heterogeneity. Recall that assessing access is prong one's default, with over 52% of all opinions resolving prong one solely on the basis of access and over 81% of opinions using access as a significant part of assessing prong one. Prong two simply doesn't have a similarly dominant means that courts use to answer its questions, even within individual circuits. Of course, the ordinary observer's percentages would rise significantly if we lumped every subtest that seems somewhat similar under its heading. However, as discussed above, we don't believe such an approach does justice to how courts actually address prong-two questions. Nor does that approach provide an opportunity to interpret variations in how courts refer to the many subtests that appear in judicial opinions.

Another main grouping of subtests is the Ninth Circuit's so-called "extrinsic-intrinsic" test. Using this subtest, courts first objectively identify protectable similarities between the two works under the extrinsic test.[201] If this extrinsic component is satisfied, courts then ask whether the similarities are substantial enough under the test's intrinsic component to constitute infringement according to some form of the "ordinary reasonable reason" standard.[202] This test shows up in about 24% of our opinions, constituting the second most popular means by which courts address prong-two questions. Similar to the Second Circuit,

201. Sid & Marty Krofft Television Prods. v. McDonald's Corp., 562 F.2d 1157, 1164 (9th Cir. 1977), *overruled on other grounds by* Skidmore v. Led Zeppelin, 952 F.3d 1051 (9th Cir. 2020).

202. *Id.*

the significant number of Ninth Circuit opinions in our study largely account for this subtest's relatively high percentage of adoption. In fact, the subtest's adoption rate increases to about 64% when considering just Ninth Circuit opinions. This suggests that the extrinsic-intrinsic test, more so than even the ordinary observer test, is largely a tool that a single circuit, the Ninth Circuit, uses. Indeed, the extrinsic-intrinsic subtest's adoption rate in the Ninth Circuit is higher than any other subtest's adoption rate in any other circuit.

Despite the Ninth-Circuit-centric nature of the extrinsic-intrinsic test, courts in other circuits do sometimes use it, including courts in the Third, Fourth, Eighth, and Eleventh Circuits.[203] Often, however, these courts use a mangled version of the subtest when compared to the Ninth Circuit's version. For instance, some courts that apply the extrinsic-intrinsic test, particularly within the Third Circuit, seem to treat the extrinsic component of the test as a prong-one question.[204] In essence, they use the extrinsic component to assess what the Second Circuit calls "probative similarity," or similarity that suggests that one work was copied from the other.[205] Such an approach is not inherently problematic. But it becomes a problem when the question of whether one party copied from the other is used to assess whether a party improperly appropriated protectable material from the other. As discussed, conflating these two questions raises concerns, as courts may often end up punishing copying that is otherwise permissible under copyright law.

The abstraction-filtration-comparison test, the final category that previous studies use as a catchall group, shows up in only a little over 11% of this study's opinions. In fact, it barely makes the top ten of the most popular approaches to resolving prong two, coming in at ninth overall. Interestingly, the Ninth Circuit opinions in our study relied on some form of the abstraction-filtration-comparison test more frequently (nearly 18% of the time) than opinions emanating from the Second Circuit, where only a little over 3% of opinions clearly applied the standard in resolving prong-two questions.

Of course, a primary reason the abstraction-filtration-comparison test doesn't show up as frequently as other subtests is because it was first formalized as a means by which to assess infringement in the computer software context.[206] This might also be a reason the subtest shows up more frequently in the Ninth Circuit than other circuits, since many technology cases occur within that Circuit. In fact, when limiting the analysis to opinions involving technology, the use of the

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203. Maule v. Phila. Media Holdings, LLC, No. 08-3357, 2009 WL 229759, at *4 (E.D. Pa. Jan. 30, 2009) (applying the test); Nat'l League of Junior Cotillions, Inc. v. Porter, No. 06-cv-508, 2007 WL 2316823, at *6 (W.D.N.C. Aug. 9, 2007) (same); Schoolhouse, Inc. v. Anderson, 275 F.3d 726, 729 (8th Cir. 2002) (same); Suntrust Bank v. Houghton Mifflin Co., 136 F. Supp. 2d 1357, 1366 (N.D. Ga. 2001) (same), *vacated*, 268 F.3d 1257 (11th Cir. 2001).

204. *See, e.g.*, Douglas v. Kimberly-Clark Corp., No. 92-3394, 1993 WL 9033, at *2 (E.D. Pa. Jan. 11, 1993) (treating the extrinsic part of the test as relevant to whether factual copying occurred).

205. *Id.*

206. Comput. Assocs. Int'l, Inc. v. Altai, Inc., 982 F.2d 693, 706 (2d Cir. 1992).

abstraction-filtration-comparison test rises significantly to nearly a quarter of cases. This almost certainly underestimates the use of the abstraction-filtration-comparison test in software cases, though, as this study defined technology to include contexts beyond simply software. Indeed, as Professor Pamela Samuelson notes, nearly every circuit has used the abstraction-filtration-comparison test for assessing claims of software copyright infringement.[207] Our data largely confirm Samuelson's findings; our study includes multiple opinions utilizing the abstraction-filtration-comparison test from each of the first eleven circuits, omitting only the Federal Circuit and D.C. Circuit, where copyright cases rarely happen.

Aside from these three traditional groupings, our data highlight several additional insights regarding prong two. First, the third most popular means by which courts decide prong two is to use no specific subtest at all. Nearly 24% of all opinions purporting to reach a result on prong two did not clearly apply any of the subtests. That result might seem curious, especially in light of how many options courts have. Several factors help explain this outcome. For starters, as we shall see shortly, a good number of courts simply rely on copyright limitations to determine whether substantial similarity under prong two exists; in essence, they use these limitations as the subtest for assessing similarity. Furthermore, a number of our opinions come at relatively early stages of litigation, where the court simply assesses whether the plaintiff has pled enough to state a legal claim under the substantial similarity standard. In such scenarios, courts sometimes do not engage in a deep analysis of the substantial similarity question, omitting discussion of specific subtests and copyright limitations in making their determinations. Finally, sometimes courts are simply sloppy and conflate prongs one and two. For instance, at times they decide prong two largely on the basis of prong-one considerations, concluding that the defendant clearly copied from the plaintiff when, at least under prong two, that is not the pertinent question.[208] These three factors almost certainly contribute to the near quarter of opinions where courts failed to apply a prong-two subtest when determining the prong-two outcome.

A second important finding is that courts frequently use a number of other subtests when deciding prong two, not just the three headliners. For instance, the "total concept and feel" subtest is standard fare in many opinions. It is frequently used in the Second Circuit in conjunction with the ordinary observer test and in the Ninth Circuit as part of the intrinsic part of the extrinsic-intrinsic test.[209] This subtest asks courts to assess similarity based on the overall aesthetic of the two

207. Pamela Samuelson, *A Fresh Look at Tests for Nonliteral Copyright Infringement*, 107 NW. U. L. REV. 1821, 1837–38, 1838 n.108 (2013).

208. *See, e.g.*, Gracing Inc. v. E.K. Blue, Inc., No. CV 16-5107, 2017 WL 5640516, at *1–3 (C.D. Cal. June 28, 2017) (seeming to conflate the prongs one and two questions by emphasizing that independent creation was highly unlikely during its discussion of prong two).

209. Hamil, America Inc. v. GFI, 193 F.3d 92, 102 (2d Cir. 1999) (assessing total concept and feel as part of the ordinary observer test); YS Built LLC v. Ya Hsing Chiang Cind Huang, 739 F. App'x 414, 416 (9th Cir. 2018) (applying total concept and feel as part of the intrinsic test).

works rather than simply dissecting them and only focusing on the protectable pieces in isolation.[210] Overall, courts assessed works' similarities in terms of total concept and feel in a little over 21% of this study's opinions, making it the fourth most popular subtest under prong two.

Perhaps less expected is the rise of the use of some form of the "striking similarity" subtest under prong two. Courts used this subtest under prong two in about 18.5% of our opinions, making it the fifth most popular subtest under prong two. Furthermore, within our study courts from every circuit except the Federal Circuit issued opinions that relied on striking similarity to resolve prong-two questions. These outcomes are somewhat surprising because, as discussed above, traditionally courts have used this subtest under prong one to infer access when evidence of access is lacking. The idea, at least under prong one, is that the similarities between the two works are so significant that the court simply can't fathom that one wasn't copied from the other.[211]

But as we have discussed, courts mostly don't assess similarities under prong one, at least anymore. Instead, comparison of the works, to the extent that it happens, typically occurs under prong two. This makes use and migration of the striking similarity subtest under prong two much more understandable, if not justified. Indeed, some courts that use striking similarity under prong two seem to use it as if answering prong one: the similarities are so striking that it is reasonable to believe that the defendant copied from the plaintiff.[212] Yet that is not the question under prong two, where courts are supposed to assess whether what was copied was a substantial amount of protectable material. However, at least some courts seem to imply that when striking similarities exist, that is enough to satisfy prong two as well, since the striking similarities are likely to encompass whatever protectible material exists in the plaintiff's work.[213]

Some circuits use a form of the striking similarity test under prong two primarily when the plaintiff's work only enjoys "thin" copyright protection, meaning that the work consists of mostly unprotectable material. In such scenarios, courts within the Ninth Circuit insist that prong two is satisfied only if there is "virtual identity" between the two works.[214] Again, the idea seems to be that such striking similarities will inevitably encompass whatever little protectable material the plaintiff's work possesses, though courts in such scenarios typically avoid specifically identifying what in the work is actually protectable. Courts in the Tenth

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210. *Hamil America, Inc.*, 193 F.3d at 102; *YS Built LLC*, 739 F. App'x at 416.

211. *Gracing Inc.*, 2017 WL 5640516, at *1–3.

212. Sweet People Apparel, Inc. v. Fame of NY, Inc., No. 11-1666, 2011 WL 2937360, at *1 (D.N.J. July 19, 2011) (finding a likelihood of success on the merits because the "striking resemblances" between the two works defied defendants' claims that their work had been copied from the public domain).

213. *Id.*

214. George S. Chen Corp. v. Cadona Int'l, Inc., No. SACV 04-365, 2006 WL 8450995, at *6 (C.D. Cal. Feb. 14, 2006).

Circuit similarly sometimes use what they call the "supersubstantial similarity" test, where they deem that in cases involving a copyrighted work with only thin copyright, the defendant's work must be nearly identical to the plaintiff's work to find infringement.[215] Other courts, regardless of whether the copyright in the plaintiff's work is thin or robust, simply note that the similarities between the two works are striking enough to satisfy prong two.[216]

The rise of using some form of the striking similarity subtest under prong two is not problematic on its own. It certainly makes some sense that when striking or extensive similarities exist between two works, often appropriation of protectible material will follow. Yet simply stopping the analysis at observing striking similarities, without specifically identifying protectable material that a defendant appropriated, runs the risk of finding infringement when no or little protectable material is actually in play. This risk may be particularly pronounced when courts rely on and use reasoning from other courts that employ the striking similarity subtest, since much of that case law will have used striking similarity as a means to address factual copying under prong one.

A third finding is that, contrary to what others have found,[217] courts frequently use multiple subtests to answer prong two. Naturally, our differences with other studies on this score reflect our decision to forego lumping the subtests together under general headings. However, for the reasons discussed above, we think this decision is justified. A little over 65% of our opinions purporting to apply subtests under prong two relied on at least two subtests when deciding that prong. In some opinions, courts relied on seven and even eight subtests under prong two. While some may argue that these percentages are inflated because in many cases courts are likely to have meant the same thing despite slight differences in terminology, the reality is that many courts used those differences in terminology somewhat consistently. That consistency suggests these differences are not always simply the result of sloppiness nor that courts always or even typically mean the same thing when using differently denominated subtests.[218]

Our last significant finding under prong two concerns win rates. Plaintiffs had much less success under prong two than they did under prong one. Under prong

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215. Craft Smith, LLC v. EC Design, LLC, 388 F. Supp. 3d 1385, 1401 (D. Utah 2019), *aff'd*, 969 F.3d 1092 (10th Cir. 2020).

216. Koontz v. Jaffarian, 617 F. Supp. 1108, 1113–15 (E.D. Va. 1985).

217. Lim, *supra* note 8 (finding that courts rarely use multiple subtests).

218. Furthermore, despite trying to capture each distinct subtest in our review of opinions, in some cases we also ended up lumping slightly differently named subtests under the same group when we thought doing so was advisable. For instance, the "layperson" group includes opinions where the court referred to "layman," "lay listeners," "lay observers," and other "lay" entities, despite slight variations in wording. We did the same under other groupings out of necessity, as so many minor deviations in wording exist in the case law as to render analysis impossible without doing so. Hence, though our data may in some cases create distinctions where courts did not intend them, in other cases we also eliminated distinctions that, despite our best judgment, possibly should have been preserved. Doing so may counterbalance any artificial distinctions we created.

two, plaintiffs succeeded about 49% of the time.[219] Recall that under prong one, plaintiffs win in about 76% of the opinions. Naturally, defendants under prong two did much better than under prong one, claiming some sort of victory about 55% of the time. Note that in some cases, both the plaintiff and defendant can claim victory when, for instance, the court denies both a defendant's and a plaintiff's motion for summary judgment. In such instances, we counted both parties as having succeeded and failed, which is reflected in the above metrics.

We believe these more balanced numbers under prong two add further validation that prong two is where courts do most of their work. As discussed above, prong one has mostly become a formality of whether a defendant had access to a plaintiff's work. Courts don't typically spend much time on this question, and they mostly simply grant plaintiffs a win on this score. In contrast, under prong two, courts are slightly more likely to favor the defendant than the plaintiff, a result that leaves plaintiffs with only cold comfort from their prong-one victories.

These results stand in stark contrast to recent studies claiming that plaintiffs almost never win substantial similarity litigation.[220] We note that a prong-two win or loss is not always the same thing as an overall win or loss, which is what these other studies focus on. However, in our study, the result on prong two typically matches the overall result: in over 96% of our opinions, the prong-two result was identical to the overall outcome.[221] Hence, for purposes of this Section, we will compare prong-two win rates with the overall win rates from other studies. Later, we will compare our overall opinion win rates to other studies' results as well.

Part of the reason for the discrepancy between our study and others is that those studies distinguish between procedural wins and victories on the merits.[222] For instance, a court may deny a defendant's motion for summary judgment because the court deems it is unable to determine with certainty that the two works lack substantial similarity. This is a procedural win for the plaintiff. A court may also deny a defendant's motion for summary judgment because it deems that the two works are, in fact, substantially similar. This is a victory for the plaintiff on the merits. Essentially, some other studies say that plaintiffs rarely win pretrial motions on the merits.[223]

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219. In calculating this figure, we first excluded all opinions where the court either did not mention prong two or did not purport to decide it. That left us with 925 opinions. We then excluded opinions that remanded the case for further proceedings, as such remands can be difficult to classify as either a win or loss without digging into the opinion. That left us with 913 opinions as our denominator, and our data indicates 445 of those opinions ruled in favor of the plaintiff on the prong two question.

220. Lim, *supra* note 8.

221. We calculated this percentage by filtering by each prong-two result type and then comparing that result to the results for overall outcome. We excluded opinions where the court had not attempted to decide prong two, as the court determined the case outcome solely on the basis of prong one.

222. Lim, *supra* note 8, at 615.

223. *Id.* at 620.

While distinguishing between these different types of victories and defeats is useful for some purposes, approaching win rates in that way also tends to bias results based on the nature of prong two's subtests. For instance, if the universe of opinions concerns mostly pretrial motions, which is the case for these types of studies, plaintiffs will almost certainly often face an uphill battle in those motions decided on the merits because so many of the subtests used under prong two concern the perspective of the ordinary observer, the lay listener, the ordinary reasonable person, or some other similar subtest. Courts will rarely grant motions on this question to plaintiffs if there is any doubt, instead pushing the decision to the trier-of-fact, the jury. In the Ninth Circuit, for instance, courts will often defer questions under the intrinsic component of the extrinsic-intrinsic test to the jury, finding that it is improper for the court to decide that question because it is for the "ordinary, reasonable person" to make that call—that is, the jury members.[224]

One might ask why this would be any different for defendants, though. In other words, if courts typically push the question to the jury if there is any doubt, shouldn't decisions on the merits only rarely occur? And to the extent that they occur, why would such opinions favor defendants? Our data do not necessarily indicate that courts favor defendants on merits-based decisions to the extent that other studies suggest, though we did not distinguish between procedural and merits-based victories, making comparison difficult. However, to the extent that defendants do have greater success on merits-based decisions, several reasons suggest why that may be. First, under prong two, courts often determine as a matter of law the protectability of the portions of a plaintiff's work that a defendant copied.[225] In cases where a court finds that the portions copied are not protectable, then the court can readily dismiss the plaintiff's case because prong two requires the presence of protectable material. The inverse is not necessarily true, however. Even if a court finds that protectable expression was copied, it may still be unwilling to grant a plaintiff's motion because that determination is a question of fact for the jury to decide.

Going back to the Ninth Circuit's extrinsic-intrinsic test provides an example of this interplay. Under the extrinsic component of the test, the court may find that no protectable expression was copied and thus grant the defendant's motion.[226] However, even if the court finds that protectable expression was copied, often it

224. Novelty Textile Inc. v. Wet Seal Inc., No. CV 13-05527, 2014 WL 10987396, at *6 (C.D. Cal. Sept. 9, 2014) (indicating that the court should only decide the intrinsic subtest when the works are virtually identical).

225. Harbor Software, Inc. v. Applied Sys., Inc., 925 F. Supp. 1042, 1046 (S.D.N.Y. 1996) (considering determination of the protectability of different parts of a copyrighted work to be a matter of law, and analogizing that determination to the Federal Circuit's patent holding in *Markman v. Westview Instruments, Inc.*, 52 F.3d 967 (Fed. Cir. 1995), *aff'd*, 517 U.S. 370 (1996)).

226. Rosenfeld v. Twentieth Century Fox Film, No. CV 07-7040, 2009 WL 212958, at *2 (C.D. Cal. Jan. 28, 2009) (applying the extrinsic test at summary judgment to find for defendants because no protectable expression had been copied).

will be loath to address the intrinsic portion of the test because that is for the ordinary reasonable person—the jury—to decide.[227]

Thus, when courts make merits-based prong-two decisions, they are more likely to favor defendants because in pretrial motions courts typically focus on matters of law such as the protectability of the copied matter. Deciding that matter in favor of defendants will frequently result in a merits-based decision in favor of the defendant as well (and thus the overall substantial similarity question). But deciding that matter in favor of plaintiffs—i.e., that some protectable material was copied—will often only result in a procedural victory for plaintiffs on prong two and overall because the court will frequently still defer the ultimate substantial similarity question to the jury.[228]

Yet procedural victories for plaintiffs in this regard are also important, even if they are not a complete victory on the merits. A procedural victory signals that the court determined that a jury could find substantial similarity between the two works. That often means the plaintiff will get a jury trial, where they may stand a good chance of winning. Or it may mean that, in light of its procedural win and a looming jury trial, the defendant will be motivated to settle.

But the distinction between procedural and merits-based decisions does not fully account for the differences between this study and others on win rates. Indeed, Professor Daryl Lim's recent study shows that even on procedural decisions, plaintiffs only won 23% of the time during the 2010–2019 timeframe.[229] Our data simply indicate otherwise, with plaintiffs actually outperforming defendants in three of the years during that time period and being near equal in others.

The primary reason for these differences seems to be the population of cases in the respective studies. The Lim study includes 242 opinions between 2010–2019. However, his study only includes published decisions, thereby omitting the vast majority of district and appellate court opinions.[230] Although each jurisdiction (and judge) is different in its standards relating to whether to publish an opinion, judges typically choose to do so only if the opinion establishes a new legal doctrine or modifies an existing one, involves a legal issue of public interest, criticizes existing law, or resolves a conflict of authority.[231] Because district court opinions are

227. Lester v. U2 Ltd., No. CV 07-06612, 2009 WL 10673938, at *2–3 (C.D. Cal. Apr. 10, 2009) (finding the extrinsic test satisfied but holding that the jury must address the intrinsic part of the test).

228. *Id.*

229. Lim, *supra* note 8, at 620.

230. *Federal Case Law*, UCLA SCH. L. HUGH & HAZEL DARLING L. LIB. (July 20, 2022, 1:05 PM), https://libguides.law.ucla.edu/c.php?g=183345&p=1208531 [https://perma.cc/AP96-A8BH] (estimating that only thirty-five percent of appellate decisions and twenty percent of district court decisions get published). Whether or not to include unpublished decisions largely depends on the research question at hand. *See, e.g.*, Matthew Sag & Pamela Samuelson, Discovering *eBay*'s Impact on Copyright Injunctions Through Empirical Evidence (Jan. 28, 2022) (unpublished manuscript), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3898460 [https://perma.cc/XZW7-B7PA].

231. Robel, *supra* note 150.

non-precedential (whether published or not), they will often fail these criteria and thus not be chosen for publication. Even appellate decisions typically fall short of these standards.[232] Yet the criteria for publication should not be the criteria for whether to include an opinion in a study about how courts make substantial similarity decisions, since those unpublished decisions constitute the vast majority of data regarding how courts actually decide such cases. Indeed, focusing on published decisions biases the results in favor of high-profile cases and excludes run-of-the-mill applications of the law.

In contrast, our search criteria were broad in order to capture all relevant cases, whether published or not, which meant we had to cull thousands of false positives from the results during our review. But that approach also means that our study includes hundreds of additional opinions that the Lim study and others do not. In fact, despite being a sample, our data include nearly double the number of opinions as the Lim study for the same 2010–2019 time period. And those additional opinions appear to play a role in accounting for the differences in outcomes as between the two studies.[233]

In sum, our data under prong two highlight several important findings. Unlike prong one, there is no dominant test for resolving the prong, even within many circuits. Rather, courts use a multitude of subtests under prong two, including some, such as the striking similarity standard, that commentators typically associate with prong one. Courts also frequently use multiple subtests in wrestling with prong two. Or often courts simply answer prong two's questions without using any subtest at all. Prong two is also where most of the overall test's controversy lies, as plaintiffs and defendants appear more evenly matched than under prong one. While defendants win slightly more frequently than plaintiffs under prong two, plaintiffs don't appear to do as poorly under its standards as some suggest.

8. Copyright Limitations

As part of our prong-two analysis, we tracked which copyright limitations courts rely on in their substantial similarity discussions and how frequently they did so. We grouped limitations into one of the following categories:

- Blank forms doctrine
- De minimis exception

232. *Federal Case Law*, *supra* note 230.

233. When we focus only on published decisions from the 2010–2019 time period in our sample, plaintiffs' win rates on prong two drop to thirty-five percent compared to a sixty-six percent win rate for defendants. These rates, while showing an increase in defendants' win rates when compared to our overall data, still fall well short of the Lim study's defendant overall win rates. Furthermore, we still think that taking into account both published and unpublished decisions is the better approach, as published opinions tend to be a highly biased population.

- Idea-expression dichotomy, including discussions of how facts, history, and concepts are not protectible and discussions about 17 U.S.C. § 102(b) more generally
- Functional/utilitarian limits
- Merger material
- Public domain material, including discussions about how things found in nature are not protectable
- Scenes a faire material
- Short phrase doctrine

These groupings may not capture the entire universe of copyright limitations that courts rely on, but they do cover the main ones. Note that we did not include fair use discussions in our analysis, an important defense to claims of copyright infringement, as we focused exclusively on the portions of the opinions that opined specifically on the substantial similarity test.

This type of data is vital to track because limits on copyright are an essential part of assessing whether a defendant has taken too much protectible material. Many subtests are clear that such copyright limitations are crucial to assessing whether actionable copying has occurred. For instance, the abstraction-filtration-comparison test includes as one of its essential components removing non-protectible material before comparing the two works for infringement.[234] Other tests, including the extrinsic-intrinsic and ordinary observer tests, also frequently use copyright limitations to assess whether substantial similarity between the two works exists.[235]

Indeed, arguably such limitations should be standard in any substantial similarity analysis. Otherwise, courts risk finding substantial similarity and thus infringement based on material that copyright does not protect. And though there may be legitimate debates about how best to apply such limitations in the context of substantial similarity, it goes without saying that these important limits on the scope of copyright deserve to have a seat at any substantial similarity table.

About 63% of our opinions that purported to decide prong two included discussion of one or more of the copyright limitations specified above. Despite covering most opinions, this percentage might strike some as low given the importance of assessing copyright limitations as part of the substantial similarity inquiry. Three observations on this point are in order. First, we only coded for copyright limitations to the extent that they appeared in the portion of the opinion dealing specifically with substantial similarity. Courts often structure their opinions

234. Brief of 44 Intellectual Property Law Scholars, *supra* note 171.

235. Phillips v. Beck, No. 06-00628, 2007 WL 1106127, at *4–5 (D. Haw. Apr. 12, 2007) (applying the extrinsic test and, as part of that application, discussing several copyright limitations); Abarca Health, LLC v. PharmaPix Corp., 806 F. Supp. 2d 483, 490–91 (D.P.R. 2011) (applying the ordinary observer test and, as part of that test, applying several copyright limitations).

so that they address the work's copyrightability before they reach the substantial similarity portion. Within that section courts often discuss copyright limitations. Yet we chose not to count those discussions in our overall numbers, in part because the overall copyrightability of a work is a different question than whether it and a purportedly infringing work are substantially similar. Despite this reality, it seems likely that at least sometimes courts conducted substantial similarity analyses with their earlier copyrightability discussions in mind, even if they were not explicit about it. But ultimately we chose not to include these discussions in our copyright limitation metrics because of that lack of explicitness.

Second, we only coded for limitations if the court was explicit about the specific doctrine. In many cases one might reasonably interpret the court's discussion as a discussion about one or more of the copyright limitations. Yet because we wished to ensure that our coding results were as consistent as possible from one reviewer to the next, we did not count such discussions. While we believe such a decision was justified, it means that our results in this Section likely underestimate the prevalence of at least some of the copyright limitations.

Finally, many of our opinions occurred at early stages of litigation. On some motions to dismiss, for instance, the court simply assessed whether the plaintiff had pled enough to state a plausible claim of copyright infringement. In such cases, courts would often simply lay out the substantial similarity standard and then rule on whether the plaintiff had pled enough to plausibly state a claim under it. Such procedural decisions are less likely to include detailed discussions of copyright limitations because the court is not deciding the issue on the merits.

Despite these considerations, it remains puzzling that even more courts do not explicitly consider limitations on copyright when deciding substantial similarity. These limitations, after all, are the heart of the test—they are the key to helping courts determine whether apparent similarities between two works are actionable. In fact, some courts—about 9% of the study's opinions that purported to decide prong two—effectively used copyright limitations as the de facto subtest under that prong by not even applying a subtest other than to invoke copyright limitations in rendering its prong-two decision. Much fuss is made over which subtests courts use under prong two and whether certain ones are more or less favorable to plaintiffs and defendants.[236] These discussions merit interest, and study of these questions may shed some light on the state of substantial similarity. Yet the reality is that copyright limitations are, in a critical sense, the key to how courts assess substantial similarity, whether as part of these subtests or in isolation.

Not surprisingly, the most popular copyright limitation that courts invoke in deciding prong two is the idea-expression dichotomy. This doctrine showed up in nearly half, or a little over 48%, of cases that decided the prong-two question. No other limitation came close to it. After it, the limitations cluster into groups.

236. Lim, *supra* note 8; Lippman, *supra* note 7.

The next two most popular limitations, *scenes a faire* and the public domain, showed up about half as frequently as the idea-expression dichotomy, but they were also about twice as likely to be referenced as the next group of limitations (functionality and merger). Next, the de minimis and short phrase doctrines both showed up in less than 10% of the relevant opinions, while the blank forms doctrine was courts' least popular option for assessing the protectability of different aspects of copyrighted works.

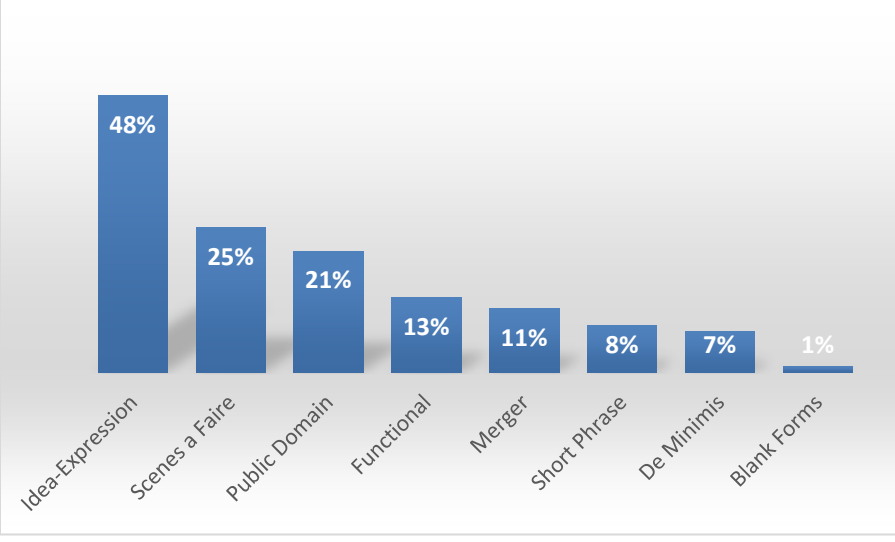

Figure 15. Most Popular Copyright Limitations

The idea-expression dichotomy should almost certainly be front and center in any discussion of substantial similarity. Because of the centrality of this concept in distinguishing between protectable and unprotectable material, the idea-expression dichotomy should likely be part of a court's typical recitation of the substantial similarity standard, in addition to a key part of its application. Indeed, the idea-expression is likely to be relevant in most discussions of substantial similarity, regardless of context, because copyrighted materials always involve a mix of ideas and expression. Of course, an extensive discussion of the idea-expression dichotomy may not always be necessary where it is clear that the defendant copied whatever protectable material the plaintiff possesses, particularly in cases where the defendant copied the plaintiff's work nearly verbatim. But even in such cases, the idea-expression distinction likely merits a mention as part of what the overall test is trying to achieve.

In contrast, other limitations are more context specific, and their lower percentages reflect this. For instance, courts are unlikely to need to invoke the blank forms doctrine unless the suit involves a blank or near blank form. Similarly, they

need not address public domain material if the suit in question does not involve material from the public domain. While the idea-expression dichotomy is more of a universal copyright standard, the other limitations are more likely to arise only in situations where narrower concerns are at issue.

How did plaintiffs fare when courts did not apply any copyright limitations in their prong-two analyses? Very well. They experienced victory on prong two in about 67% of opinions where the court did not mention any copyright limitations, whereas defendants only won on prong two about 34% percent of the time when courts did not address copyright limitations.

Conversely, when courts discussed one or more copyright limitations in their opinions, defendants won the prong-two decision about 68% of the time, a winning percentage nearly identical to that which plaintiffs enjoyed when courts omitted discussion of limitations altogether. Furthermore, plaintiffs only won prong two in about 35% percent of opinions when courts discussed one or more copyright limitations under prong two, which again mirrors defendants' low chances of success when courts omit discussion of copyright limitations. Quite literally, the inclusion or omission of copyright limitations in courts' prong-two discussions seems to flip the script in either direction.

Of course, these percentages are only a starting point for conversation. Defendants may emerge victorious so frequently in opinions that include discussion of copyright limitations precisely because those limitations are applicable to that particular case (and not to others). And plaintiffs may win prong two so frequently in opinions that omit discussion of limitations precisely because no limitations are relevant to the alleged copying. Nonetheless, at least on the surface it appears that a key part of winning prong two is to persuade the court to engage with—or ignore—significant limitations on copyright.

9. Experts

As noted above, courts generally indicate that expert witnesses belong under prong one. There, the expert can presumably help the court decide whether the defendant did, in fact, take from the copyrighted work by identifying similarities between the two works that are unlikely to be due to chance.[237] However, courts are often adamant that experts are not to help with prong two's questions.[238] Instead, the "ordinary observer," or some other related iteration, is to take on that question without the aid of experts.[239] In some complex technological fields such as software and architecture, courts have relented and do allow experts under prong two, presumably because the "ordinary observer" simply isn't capable of comparing

237. Control Data Sys., Inc. v. Infoware, Inc., 903 F. Supp. 1316, 1321 (D. Minn. 1995) (relying on an expert report in finding similarities probative of copying).

238. Concrete Mach. Co., Inc. v. Classic Lawn Ornaments, Inc., 843 F.2d 600, 608 (1st Cir. 1988).

239. *Id.*

the works without aid.[240] But otherwise, courts typically insist that prong two is off limits as far as experts go. In fact, this insistence is a main source of criticism of the substantial similarity test, with some scholars arguing that the best use of experts may very well be under prong two, not prong one.[241]

The reality is that courts rarely rely on expert witnesses in substantial similarity cases, whether it be under prong one or prong two. Overall, courts explicitly relied on experts somewhere in their substantial similarity opinions in only about 12% of our opinions. For the vast majority of opinions, then, courts simply do the substantial similarity analysis without the aid of experts.

Yet when they do rely on experts, our data suggest it is much more likely to be under prong two, not prong one. Courts explicitly relied on experts under prong one in a little under 5% of the relevant opinions in our sample.[242] Conversely, under prong two, courts relied on experts in nearly 13% of the relevant opinions.[243] Either percentage is fairly low, but reliance upon experts under prong two is well over twice as likely as under prong one.

Figure 16 below shows the percentage of opinions per medium and per prong that relied on expert witnesses. Note that some opinions in our study might count for multiple categories because those opinions involved multiple mediums. In every category, courts were more likely to rely on experts under prong two than prong one. Not surprisingly, experts show up much more frequently in music and technology cases than others. Note that the technology and three-dimensional categories include more than just software and architecture, meaning that expert usage in those domains is almost certainly higher than the below figure depicts. Indeed, anecdotally, use of experts in architecture cases is somewhat common.

240. Gates Rubber Co. v. Bando Am., Inc., 798 F. Supp. 1499, 1511 (D. Colo. 1992), *aff'd in part, vacated in part sub nom.* Gates Rubber Co. v. Bando Chem. Indus., Ltd., 9 F.3d 823 (10th Cir. 1993).

241. Lemley, *supra* note 6.

242. That is, where they made a decision on prong one, or 807 of our sample's opinions.

243. Nine hundred twenty-five opinions purported to reach a decision on prong two.

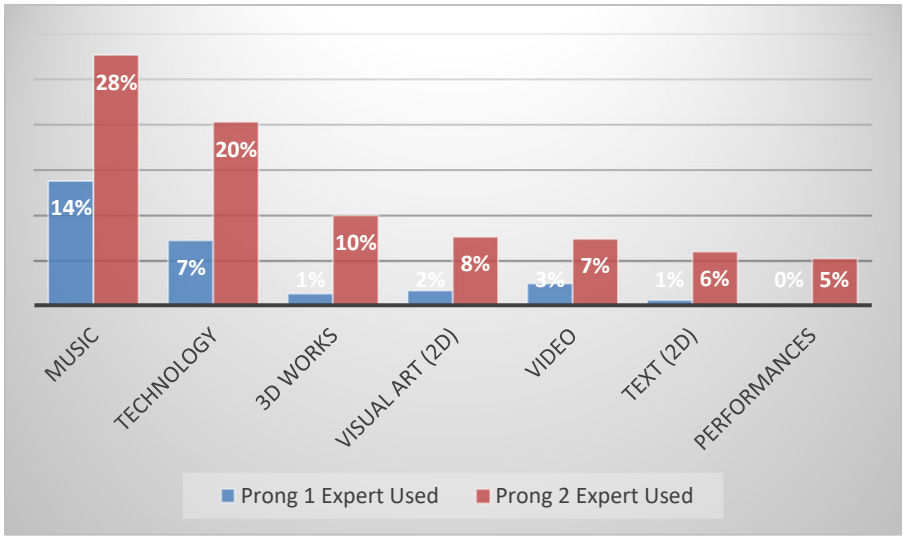

Figure 16. Expert Usage Per Medium and Per Prong

These percentages likely underestimate the use of experts in other respects as well. For instance, many of the opinions were issued very early in the litigation process, where the court is merely assessing whether the plaintiff has adequately pled the elements necessary to state a claim for copyright infringement. Excluding these types of opinions from the analysis would undoubtedly increase the frequency with which courts rely on experts in substantial similarity decisions. But importantly, it is likely to do so under both prongs, meaning that the counterintuitive result that experts are more frequently used under prong two than prong one remains.

The demise of experts under prong one probably owes significantly to the fact that prong one has become mostly about access. Because courts determine whether defendants had access to a plaintiff's work using a number of subtests for which expert testimony is irrelevant, it is no surprise that the use of experts under prong one rarely happens.

These data do not directly address the arguments others have made that experts deserve a greater spotlight under prong two.[244] But the relatively sparse use of experts even under prong two may further highlight a greater need for them to aid courts in navigating the questions that prong two presents. For instance, as part of prong two, courts, as a matter of law, often assess which parts of a work are protectable expression so that the "ordinary observer" does not find substantial similarity on the basis of things that copyright does not protect, such as ideas, *scenes*

244. *See* Lemley, *supra* note 6 (arguing, among other things, that expert testimony should be permitted under the second prong of the overall substantial similarity test); Samuelson, *supra* note 6 (similar).

a faire, merger material, things from the public domain, among others.[245] Judges are experts in the law, and at some level we can expect them to be capable of understanding and applying copyright law's limitations as part of such an analysis. But part of being capable of applying those limitations to different fields is understanding of those fields. It is folly to expect judges, as part of this protectability inquiry, to be familiar with and understand all the nuances of any given field, including those, such as literature, that we often falsely imply are not as complicated as computer software, architecture, and others. While we may not wish to bias judges or juries with the views of experts, is it not worse for those parties to be biased based on ignorance? Experts can and should be used under prong two to help inform the court or jury when needed, even if their opinions do not hold the weight of law.

10. The Law of Substantial Similarity

Another interesting question concerns the sources of law for substantial similarity opinions. The Supreme Court has never issued an opinion directly articulating the substantial similarity test—or even used the term in any of its copyright decisions, for that matter. The Supreme Court has opined that a plaintiff must show that the defendant copied "constituent elements of the work that are original," but has not otherwise clearly elaborated how to go about making that determination.[246] The Copyright Act similarly does not specifically address how courts are to assess whether a third party has taken so much protectable material as to constitute copyright infringement.[247] Instead, circuit courts have developed the substantial similarity test(s) to help make sense as to whether a copyright owner's rights have been violated.

So what sources of authority do courts rely on in making their substantial similarity decisions? When reviewing the opinions, we recorded whenever a court cited to another court decision in assessing substantial similarity, noting the circuit from which the cited opinion emanated. We also recorded Supreme Court decisions and included an "other" category, which primarily consists of law review articles, treatises, books, and similar forms of authority. Note that our method does not account for the intensity of reliance upon any particular authority within opinions. For instance, if a Second Circuit decision cited to Second Circuit decisions a dozen times but the Ninth Circuit only once, our data would indicate that the decision cited to the Second Circuit and Ninth Circuit. While knowing citation intensity within opinions would certainly be useful, such an undertaking is beyond the scope

245. *See supra* Section I.A.

246. Feist Publ'ns, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 361 (1991).

247. For some rights, such as public performance, public display, and derivative works, the Act does provide definitions that are helpful in assessing whether the rights have been violated. But the ultimate determination as to whether enough protectable material has been taken as to constitute infringement is wholly absent from the Act.

of this project. Despite this, our results point to some important insights as to which sources courts rely on in deciding substantial similarity cases.

Nearly 98% of courts cited to some authority outside of their own circuits in rendering their substantial similarity opinions. This high percentage underscores the reality that courts deciding substantial similarity opinions often cobble together heterogenous authorities in navigating substantial similarity's murky waters. The most cited authority is the Second Circuit, with about 56% of our study's opinions citing to decisions from that circuit. Of course, Second Circuit opinions make up a large share of the study's sample, which contributes to this high percentage. But even when excluding self-citations, nearly 43% of opinions from outside the Second Circuit cite to that circuit's case law when deciding substantial similarity.

The Supreme Court is the next most frequently cited authority in substantial similarity opinions, showing up in about 51% of opinions. The primary case cited in these opinions is the Supreme Court's *Feist* case, where the Court articulated the general standard for infringement without getting into many specifics.[248] Courts often cite *Feist* in their substantial similarity opinions as a general framework before getting into the nitty gritty of their particular circuit's substantial similarity case law.

The Ninth Circuit is also a significant source of substantial similarity authority. Its decisions show up in nearly 49% of this study's opinions. Again, because opinions from the Ninth Circuit make up such a large share of the study's dataset, a significant reason the Ninth Circuit is cited so frequently is because the Ninth Circuit typically cites to itself in issuing substantial similarity opinions. In fact, courts outside the Ninth Circuit cite to Ninth Circuit opinions in a little over 29% of our opinions. That percentage still suggests that Ninth Circuit case law frequently influences how courts analyze substantial similarity outside the Ninth Circuit. Yet despite the Ninth Circuit's growing substantial similarity case load, it appears the Second Circuit remains the thought leader more generally—at least for now.

The other most frequently cited authority in our opinions comes in the category of "other," which comprises things like law reviews, books, and treatises. The Nimmer and Goldstein treatises are the main culprits here, with courts frequently citing to them in articulating substantial similarity standards. It's no wonder that courts frequently resort to a treatise in the messy area of substantial similarity law, since treatises are meant to help clarify the law in a given area.[249]

Not surprisingly, the least influential circuits in terms of citations are the District of Columbia Circuit and the Federal Circuit. As discussed above, courts from these circuits rarely take on copyright law issues, and our study confirms this, with the share of opinions from these circuits being the two lowest in our study. Decisions emanating from these circuits are similarly rarely cited, with only a little over 4% of our opinions citing courts from the District of Columbia Circuit and

248. *Feist*, 499 U.S. at 357–58.

249. Danner, *supra* note 13.

only a little over 2% of the opinions citing to the Federal Circuit. When excluding self-citations, the percentages drop only slightly, which makes sense in light of these circuits light copyright caseloads. The Fourth, Eighth, and Tenth Circuits only fare slightly better than these two circuits, with each showing up in under 9% of the opinions. And when excluding self-citations, those percentages drop further.

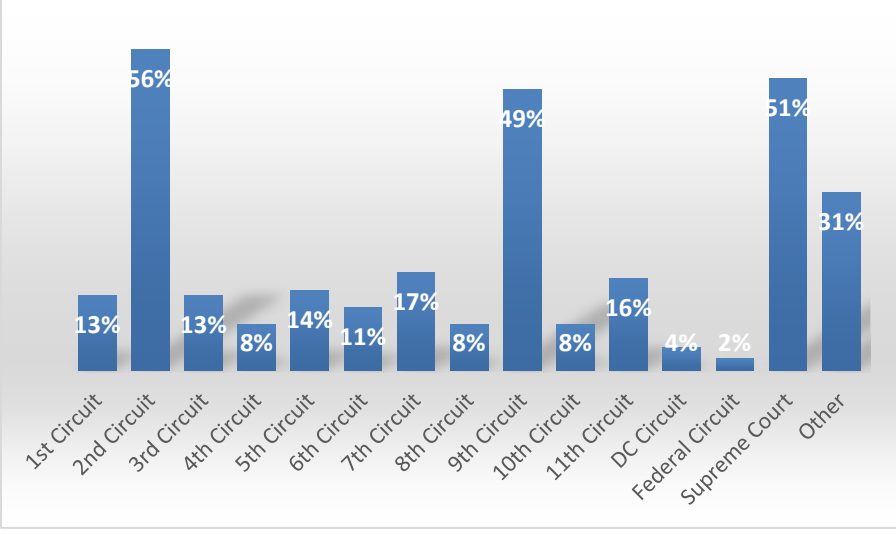

Figure 17. Percentage of Opinions Citing Different Authorities

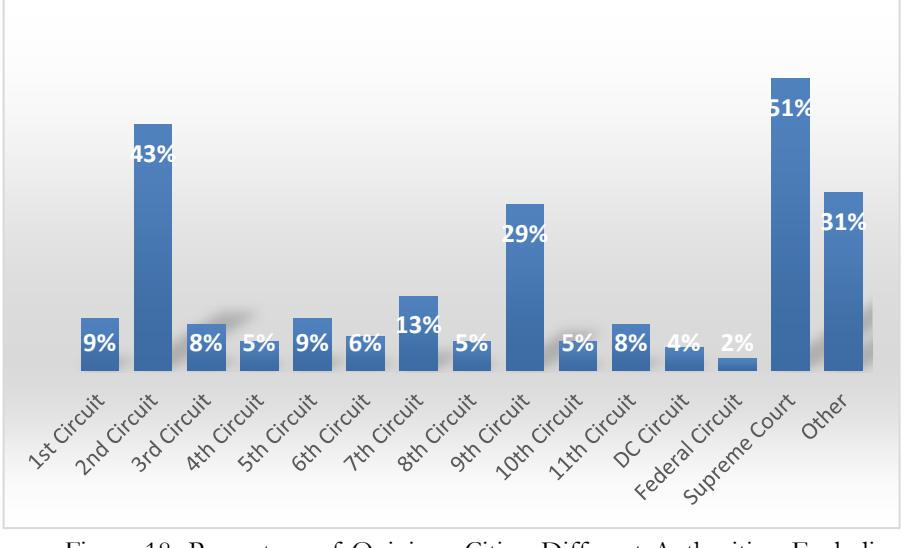

Figure 18. Percentage of Opinions Citing Different Authorities, Excluding Self-Citations

11. Win Rates

As discussed above, a significant point of interest among scholars and more generally is substantial similarity win rates.[250] Several studies suggest plaintiffs face an uphill battle in substantial similarity cases, indicating that this trend began decades ago and has only accelerated, to the point where plaintiffs stand little if any chance of success.[251] Professor Daryl Lim argues this is largely because modern courts wrest the decisions from the jury and increasingly decide substantial similarity on pretrial motions such as summary judgment.[252]

As we discussed above, overall win rates largely track win rates on prong two, since prong two is where courts do most of their work on substantial similarity. In this Section, we briefly revisit win rates, accounting for the few differences between wins on prong two and overall outcomes.

At the outset, it is important to define what success means in this context. This study treated it as a plaintiff's victory any time the court decided that the two works were substantially similar or otherwise denied a defendant's motion (or granted a plaintiff's motion). Conversely, we treated it as a defendant's victory any time the court decided that the two works were not substantially similar or otherwise denied a plaintiff's motion (or granted a defendant's motion). Of course, those victories may sometimes ring hollow. For instance, a court may deny a defendant's motion to dismiss early in a case—thereby providing the plaintiff an early victory—only for the court to later decide that the works are not substantially similar with a fuller record or as part of a trial. Similarly, a plaintiff may ultimately win at trial, even if a court denies a plaintiff's pretrial summary judgment motion—thereby providing the defendant an early victory—because the court finds that reasonable minds could differ as to whether the two works in question are substantially similar. Yet for the reasons previously discussed, we think it's important to include these types of procedural decisions within the study because of the important role they play in the litigation process.

This study's data suggest that defendants win about 57% of the time, compared to plaintiffs emerging victorious in about 46% of the opinions. These numbers represent a slight decrease in plaintiffs' fortunes when compared to prong two—there, plaintiffs succeeded in around 49% of the opinions, and defendants had around a 55% win rate.

We think this may owe to several factors. First, our numbers here exclude reversals and remands, since that bare metric does not necessarily tell us who won the case. Reversals and remands occurred more frequently on the overall outcome than on the outcomes for prongs one or two, meaning some of those earlier opinions with decisions on prongs one and two did not make it into our calculation

250. Lim, *supra* note 8; Lippman, *supra* note 7.
251. Lim, *supra* note 8; Lippman, *supra* note 7.
252. Lim, *supra* note 8, at 627–35.

for overall outcomes. Second, some cases with no results on prongs one or two do have an overall outcome result. That reality further contributes to differences between overall outcome tallies and those under either of the prongs. Finally, similar to how we treated prongs one and two, both a defendant and plaintiff can claim victory or defeat in the same opinion as to overall outcome if the court grants or denies both the plaintiff's and defendant's motions regarding the opinion's final result. This coding decision, while merited, reflects the flexibility courts have in diverging as between outcomes on earlier parts of the test and final outcomes.

Despite these differences, the overall outcome win rates are still only a few percentage points different than the prong-two results, again confirming the centrality of the prong-two analysis in the overall test. And while defendants seem to have a slight advantage in winning substantial similarity cases, their odds fall far short of what other studies suggest.[253] Instead, they are closer to what predominant scholarship on litigation odds predict—a fairly even match.[254]

CONCLUSION

We have already discussed a variety of implications from our study. Here we briefly conclude by highlighting several key implications for ease of reference.

First, it is critical that courts keep prongs one and two as distinct inquiries and reinvigorate their assessments under prong one. Our review suggests that courts assess similarities indicative of copying under prong one only rarely, instead bypassing most of prong one other than to briefly assess whether the defendant plausibly had access to the plaintiff's work. When they do assess similarities, it is typically in the context of prong two, not prong one. The result is that plaintiffs typically win prong one, even though they win prong two and the overall outcome less than half of the time.

We believe this sidestepping of prong one elides an important inquiry in any copyright infringement dispute—whether the defendant actually copied from the claimed source.[255] Independent creation is a complete defense in copyright law, after all, regardless of whether the two works are perfect matches.[256] And while courts may believe that it is more efficient to assess similarities only once, that approach leads to inefficiencies of its own. For instance, if there is no evidence suggesting that a defendant actually copied from the plaintiff, then courts need not waste judicial resources wrestling with difficult questions regarding whether a defendant copied an idea or an expression of an idea, whether the idea has merged with the expression, whether something counts as a *scenes a faire*, among many other metaphysical copyright questions with which courts consistently struggle.

253. Lim, *supra* note 8; Lippman, *supra* note 7.

254. Priest & Klein, *supra* note 32.

255. *See, e.g.*, Balganesh & Menell, *supra* note 186 (manuscript at 9–11) (laying out several arguments as to why the first prong is important).

256. Asay, *supra* note 44, at 208.

Whether a party copied from another should be the start—and sometimes will be the end—of any copyright infringement discussion.

Keeping these two inquiries distinct is also important because merging them can often mean that prong two becomes littered with irrelevant—and dangerous—considerations. For instance, when courts suggest prong two is satisfied because the two works share "striking similarities," they often fail to identify what is so striking about those similarities, at least in a copyright sense. If those striking similarities don't relate to protectable expression, then they should not matter under prong two, even if they would under prong one. The danger of such reasoning can be further seen when courts note that the striking similarities suggest independent creation is unlikely, all while purporting to decide prong two. Again, independent creation is relevant under prong one as to whether the defendant actually copied from the plaintiff's work. It is irrelevant to the inquiry as to whether the defendant copied a substantial amount of protectable expression from the plaintiff.

Finally, we believe that the heart of prong two should be the discussion and application of any relevant copyright limitations. Much fuss is made of the various subtests under prong two. After collecting and analyzing thousands of opinions, we tend to believe that the particular test a court adopts is less important than whether that court properly applies any relevant copyright limitations. After all, such limitations are the primary means by which courts determine whether the defendant has taken a substantial amount of protectable expression. Of course, the demands of various subtests can certainly make a difference—for instance, adjusting the perspective of the hypothetical party making the substantial similarity determination may influence that question's outcome. But critically, it is proper application of important copyright limitations that helps determine what the hypothetical party should compare.

We think this focus under prong two would also help address the conflation of prongs one and two discussed above. After all, if courts make copyright's proper scope the heart of prong two, then independent creation and whether the defendant actually copied from the plaintiff is less likely to bleed into prong two-discussions.

As to which limitations should courts consider under prong two, that will vary depending on the subject matter and context. Yet the idea-expression dichotomy would seem relevant to nearly any copyright spat given its centrality in drawing the line between protectable expression and matter free for the taking. In fact, several other copyright limitations find their provenance in the idea-expression distinction.[257] It would thus seem to be the proper starting point for any prong-two discussion, even if it is not the ultimate arbiter.

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257. *See, e.g.*, NIMMER & NIMMER, *supra* note 2, § 13.03(B)(3)–(4) (discussing the merger and *scenes a faire* doctrines' relationship to the idea-expression dichotomy).