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Daryl Lim

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Substantial Similarity’s Silent Death

Daryl Lim*

Abstract

Copyright litigation involving hit songs like Robin Thicke’s “Blurred Lines,” Justin Bieber and Usher’s “Somebody to Love,” and Led Zeppelin’s “Stairway to Heaven” caused many in the music industry to vex over the line between homage and infringement. When are the two works too similar? To many courts and scholars, substantial similarity is “bizarre,” “ad hoc,” and “a virtual black hole in copyright jurisprudence.” Every creative work borrows some inspiration from other works, whether copyrighted or not. Judging when defendants appropriated too much is an inherently opaque and subjective enterprise, but unraveling its mysteries is critical for the flourishing of diverse, creative ecosystems like architecture, literature, movies, and software.

The scholarly debate has focused on doctrinal tests and litigation venues without accounting for factors actually impacting case outcomes and those that do not. Unaddressed, plaintiffs will continue to face abysmal odds without really knowing why. This Article reveals potentially malignant features in copyright law that may inhibit the growth of creativity and technology, and other features that are conventionally thought to impact case outcomes but are surprisingly irrelevant. This Article’s most important finding is substantial similarity’s silent death through pretrial motions and the prevalence of non-rival defendants. This Article also uncovers the irrelevance of willful infringement and the nature of the copyrighted works at issue to case outcomes. Beyond copyright law, this Article underscores the consequences of shunting jury trials, affirms how empirical research realigns

* Professor of Law and Director, Center for Intellectual Property, Information and Privacy Law, The University of Illinois at Chicago John Marshall Law School. I am grateful to Ann Bartow, Chris Carani, Josh Sarnoff, Sam Wang, and Peter Yu for their valuable insights. My appreciation also goes out to Zachary Carstens, Joseph Ramli, Reed Bartley, and Amanda Sansone of the Pepperdine Law Review for their excellent editorial work. UIC John Marshall Law School’s summer research stipend award supported the writing of this project. All errors and omissions remain mine alone.
theoretical work to real-world outcomes, and demonstrates how cross-fertilization within copyright doctrines and beyond copyright law is critical to addressing seemingly intractable doctrinal puzzles like substantial similarity.
TABLE OF CONTENTS

I. INTRODUCTION ........................................................................................................... 716

II. JUDGING SIMILARITY ................................................................................................. 721
   A. Tests for Substantial Similarity .............................................................................. 726
      1. The Ordinary Observer Test ............................................................................ 726
      2. The Extrinsic/Intrinsic Test ............................................................................. 728
      3. The Abstraction/Filtration/Comparison Test .................................................. 729
   B. Limits to Substantial Similarity ............................................................................ 731

III. THE EMPIRICAL STUDY ........................................................................................... 735
   A. Study Design ........................................................................................................ 736
   B. Limitations and Caveats ..................................................................................... 738
      1. The Database and Statistics ............................................................................ 738
      2. The Dynamics of Litigation ............................................................................ 740

IV. THEORY AND PRACTICE ......................................................................................... 742
   A. The Demise of Substantial Similarity .................................................................. 742
      1. The Tests for Substantial Similarity? ............................................................... 744
      2. Circuit Variances? ........................................................................................... 748
   B. Judge and Jury Dynamics .................................................................................. 752
   C. Rivals and Rogues ............................................................................................. 763
   D. Works of Authorship ......................................................................................... 770

V. REFLECTIONS, RECOMMENDATIONS, AND IMPLICATIONS (BEYOND COPYRIGHT LAW) ........................................................................................................... 777
   A. Reclaiming the Jury Trial .................................................................................... 778
   B. Fact-checking Theory ......................................................................................... 779
   C. Cross-fertilization ............................................................................................... 780

VI. CONCLUSION ............................................................................................................ 782

TABLE OF FIGURES ....................................................................................................... 784

APPENDIX ...................................................................................................................... 784
I. INTRODUCTION

Since a federal jury decided Robin Thicke’s hit song “Blurred Lines” copied Marvin Gaye’s “Got to Give it Up” several years ago, the music industry has vexed over the line between homage and infringement. So when the en banc Court of Appeals for the Ninth Circuit in Skidmore v. Zeppelin recently made it harder for plaintiffs to prove infringement, many heaved a sigh of relief. A band called Spirit accused rock legend Led Zeppelin of infringement through Zeppelin’s song, “Stairway to Heaven,” which shared a similar chord sequence and also had a bass line that descended along a chromatic scale. In upholding the jury’s verdict that there was no substantial similarity, the Ninth Circuit explained that works with generic or commonplace elements were protected by minimal or “thin” copyright, and plaintiffs had to show that the two works were virtually identical to succeed. Substantial similarity is the fulcrum of copyright law and its complexity rivals copyright law’s fair use defense which permits otherwise infringing uses of the copyrighted work. As a heuristic, substantial similarity plays a critical role in tailoring the scope of copyright protection in a vast majority of cases that involve nonliteral copying. Separate from whether copying exists as a factual matter, courts need to determine whether impermissible copying

2. See id.
3. Skidmore ex rel. Randy Craig Wolfe Tr. v. Led Zeppelin, 952 F.3d 1051, 1056–58 (9th Cir. 2020).
4. Id. at 1076 n.13.
5. See Shyamkrishna Balganesh, The Questionable Origins of the Copyright Infringement Analysis, 68 STAN. L. REV. 791, 794 (2016) (“The complexity of the modern copyright infringement analysis cannot be overstated. Often referred to as the “substantial similarity” requirement, its structure, scope, and purpose continue to confound courts and scholars—perhaps even more so (and more routinely) than the infamous fair use doctrine.”); see also 4 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 13.03(A) (Matthew Bender rev. ed. 2015) (recognizing it as “one of the most difficult questions in copyright law”); Pamela Samuelson, A Fresh Look at Tests for Nonliteral Copyright Infringement, 107 NW. U. L. REV. 1821, 1822 (2013) (describing it as a “central puzzle for U.S. copyright law in the twentieth and twenty-first centuries”); Lydia Pallas Loren & R. Anthony Reese, Proving Infringement: Burdens of Proof in Copyright Infringement Litigation, 23 LEWIS & CLARK L. REV. 621, 646 (2019) (“The inquiry into substantial similarity is, in some ways, the heart of many infringement cases.”).
6. See Shyamkrishna Balganesh et al., Judging Similarity, 100 IOWA L. REV. 267, 288–89 (2014) (describing it as “an essential component of almost all copyright infringement actions that do not involve outright copying by a defendant”).
took place by identifying misappropriated, colorable variations of the original.\(^7\)

Despite division among circuits over substantial similarity tests, the Supreme Court has not spoken on the issue.\(^8\) The result is a patchwork of rhetoric resting on confusing generalizations that ultimately translate into “I’ll know it when I see it” determinations.\(^9\) To make matters worse, courts must apply these tests across a diverse set of industries.\(^10\) Judges and scholars have called those tests “ad hoc,”\(^11\) “bizarre,”\(^12\) and “a virtual black hole in copyright jurisprudence.”\(^13\) The debate has gone on for decades, and there is no end in sight.\(^14\)

7. See infra Section II.B.
8. See infra Section II.B.
9. See Michael L. Sharb, Getting a “Total Concept and Feel” of Copyright Infringement, 64 U. COLO. L. REV. 903, 903 (1993); see also 4 NIMMER, supra note 5, at § 13.03[A] (“The determination of the extent of similarity that will constitute a substantial, and hence infringing, similarity presents one of the most difficult questions in copyright law, and one that is the least susceptible of helpful generalizations.”); Kevin J. Hickey, Reframing Similarity Analysis in Copyright, 93 WASH. U. L. REV. 681, 682 (2016) (“[S]ubstantial similarity, copyright law’s core infringement inquiry, is a mess. Once the law allows that non-exact copies are actionable, courts need some method to determine when two works are so alike that one should be deemed an actionable infringement of the other.”); Jarrod M. Mohler, Toward a Better Understanding of Substantial Similarity in Copyright Infringement Cases, 68 U. CIN. L. REV. 971, 972 (2000) (describing the “indeterminacy and misapplication of tests for copyright infringement”).
10. See Sharb, supra note 9, at 904 (arguing that “the ad hoc nature of copyright infringement” requires a flexible test, and “[y]et, there must be a common structure in order for the courts, as in other areas of the law, to build an underlying body of substantive common law”). See Samuelson, supra note 5, at 1821 (arguing for courts “to tailor infringement analysis based on the nature of the works at issue”); see also Nicole Lieberman, Un-Blurring Substantial Similarity: Aesthetic Judgments and Romantic Authorship in Music Copyright Law, 6 NYU J. INTELL. PROP. & ENT. L. 91, 93 (2016) (“[C]ourts have crafted an impressionistic doctrine that has drifted far from copyright’s original economic purpose of incentivizing creation.”).
13. Balganesha, supra note 5, at 794; see also Samuelson, supra note 5, at 1823 (arguing that each of these tests is flawed and that courts have generally failed to provide clear guidance about which test to apply in which kinds of cases); Rebecca Tushnet, Worth a Thousand Words: The Images of Copyright, 125 HARV. L. REV. 683, 716–19 (2012) (critiquing tests).
Unlike patent law where courts can rely on claims to delineate the boundaries of their plaintiff’s property rights, substantial similarity’s indefiniteness gives rise to no more than “the right to hire a lawyer.”15 Lawyers cannot effectively evaluate claims of infringement they receive.16 This indeterminacy is troubling. Blindingly navigating the morass of case law on substantial similarity without understanding its contours risks defeating the purpose of copyright law itself.17 Failing to understand how substantial similarity works prevents courts and scholars from clearly outlining the necessary components to plaintiffs’ evidence in infringement cases, and obscures the standards courts should identify in the cases before them.18 This may result in false positives and chill efforts by rivals as well as those in ancillary markets from developing non-infringing works, and even cause them to abandon their efforts if they cannot afford to face those unnecessarily heightened risks.19

The stakes in getting the law on substantial similarity right are high. In 2017, copyright industries in the United States contributed over one trillion

16. See Robert F. Helfing, Substantial Similarity and Junk Science: Reconstructing the Test of Copyright Infringement, 30 FORDHAM INT’L PROP. MEDIA & ENT. L.J. 735, 737 (2020) (“The elusive standard frustrates the effective evaluation of claims by lawyers, generating unnecessary litigation.”); see also Nicole K. Roodhuyzen, Do We Even Need a Test? A Reevaluation of Assessing Substantial Similarity in a Copyright Infringement Case, 15 J.L. & POL’Y 1375, 1375 (2007) (“The improper appropriation analysis, for both courts and litigants, is one of the most contentious and least precisely defined inquiries in copyright law.”).
17. See Helfing, supra note 16, at 737 (“It also produces legal decisions that defeat the purposes of copyright law more often than should be tolerated.”).
18. See Alan Latman, “Probative Similarity” as Proof of Copying: Toward Dispelling Some Myths in Copyright Infringement, 90 COLUM. L. REV. 1187, 1188 (1990) (arguing that a correct perception of the nature of similarity is necessary to “clarify the elements of proof required in copyright infringement cases, the variety of methods available to establish those elements and the proper standards for appellate review of infringement issues”).
19. See Joseph P. Fishman, Creating Around Copyright, 128 HARV. L. REV. 1333, 1387 (2015) (describing the “added layer of perniciousness” of overclaiming stemming from uncertain copyright scope for downstream creators and concluding that clarity “may not only decrease constraint’s costs but also increase its benefits”).
dollars to the gross domestic product, accounted for almost seven percent of the United States economy, and employed nearly six million workers, comprising about four percent of the entire workforce in the United States.\textsuperscript{20} In 2018, litigants filed nearly six thousand copyright infringement cases, an increase of three times the number of cases from a decade ago.\textsuperscript{21} On average, copyright cases cost between four hundred thousand to two million dollars to litigate.\textsuperscript{22}

More commentary on leading cases alone will fail to drive meaningful reform without an evidence-based understanding of how they applied substantial similarity.\textsuperscript{23} The root problem here is that judging substantial similarity requires significant factual and values-based judgments. Cast adrift on an ocean without clear legal standards, those judgments are theory-less and standard-less. Judges, scholars, and practitioners lack the insight to fix substantial similarity because many of its most important facets can only be uncovered empirically.\textsuperscript{24} Every case is fact specific, eliding rote application of formulaic or mechanistic rules.\textsuperscript{25} An evidence-based response can be given to assertions and challenges to conventional wisdom only by stepping back to see how the pieces from many cases fit together.

\begin{footnotesize}
\begin{enumerate}
\item[24.] See Robert C. Osterberg & Eric C. Osterberg, Substantial Similarity in Copyright Law, at xxii (2012) (“[T]here lacks a systematic and thorough account of substantial similarity case law that would guide how the boundaries of copyright infringement ought to be fixed, if at all.”).
\item[25.] See Sharb, supra note 9, at 904 (“The cases are riddled with confusion, inconsistency, and lack of uniformity in their application of infringement concepts.”).
\end{enumerate}
\end{footnotesize}
This Article presents the first and only modern empirical analysis of substantial similarity. Its most important finding is that the scholarly criticism of substantiality similarity’s confounding tests applied disparately across circuit courts has blinded us to its silent death. Plaintiffs struggle to prove copyright infringement in a way never observed and usually fail before they reach jury trials. Compared to patent plaintiffs, copyright plaintiffs do abysmally. This Article identifies two culprits.

First, judges and defendants use pretrial motions to ride roughshod over substantial similarity tests reserved for juries. Some judges tout expertise and efficiency to justify this, but this Article rebuts both assertions. Second, many cases involve non-rival defendants and like defendants invoking fair use, and courts may regard these defendants as promoting, rather than stifling, copyright’s utilitarian policies by producing precisely the kind of works of authorship that copyright law is meant to encourage.

This Article also shows that unlike in trademark infringement cases, courts are unmoved by allegations of willful infringement when dealing with substantial similarity. Moreover, earlier debates over the impact of the type of work on plaintiff outcomes deserve reconsideration. There is a general homogeneity across all types of work, and a trend favoring defendants. Cumulatively, these evidence-based findings will help scholars develop a framework to better understand not just copyright infringement, but also other areas of the law as well.

Part II of this Article describes the confusing patchwork of substantial similarity law, and the challenging task fact finders undertake in every case. Part III sketches the empirical study design as well as its limits. It explains the case content analysis method and situates the original dataset comprising

26.  See infra Section IV.A. The complexity of copyright litigation makes it difficult to generalize, from even a study covering hundreds of cases. For instance, circumstances such as a particular judge or jury may cause a case to settle where the same case before another judge or jury could proceed to an appeal. This Article focuses on how appellate and lower courts interpret precedent. Those interpretations are not uniform and can never be so. See infra Section III.B.2.

27.  See infra Section IV.A. The point of comparison should not be taken too far. Courts employ substantial similarity because there is no literal claim to deductively apply their legal analysis. Moreover, the methods of non-literal similarity judgments differ between the doctrine of equivalents’ tests and the three substantial similarity tests. In particular, the latter lacks the thresholds that claim construction provides. Professor Sarnoff provided this insight.

28.  See infra Section IV.B.

29.  See infra Section IV.C.

30.  See infra Section IV.D.
twenty-two variables and over four thousand datapoints in the context of that well-established methodology. Part III concludes by mentioning limitations to the database and statistics, as well as limits on the dynamics of litigation in order to provide a realistic view of what this Article seeks to achieve.

Part IV reports on substantial similarity’s silent death. It looks beyond the clamor of scholarly debate over the confusing tests and circuit variations to reveal a surprising partnership between judges and defendants, the relevance of non-rivals and irrelevance of willful infringement, and the generally uniform outcomes revealed by the diverse array of works of authorship captured in the dataset.

This Article concludes by highlighting key takeaways and identifying promising avenues for further research. Beyond copyright law, this Article underscores the consequences of shunting jury trials, affirms how empirical research realigns theoretical work to real-world outcomes, and demonstrates how cross-fertilization within copyright doctrines and beyond copyright law is critical to addressing seemingly intractable doctrinal puzzles like substantial similarity.

II. JUDGING SIMILARITY

Congress has the constitutional mandate to “promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries” to benefit the public. Through the Copyright Act, authors of “original works of authorship fixed in any tangible medium of expression” may obtain protection for limited duration. They must contain “at least some minimal degree of creativity,” but “even a slight amount will suffice.” Most works make the grade as they possess some creative spark, “no matter how crude, humble or obvious it might be.” These “works of authorship” encompass literary, architectural, pictorial, sculptural, and graphic works.

31. See infra note 145 (containing link to access dataset).
33. 17 U.S.C. § 102(a) (2016); see also Roodhuyzen, supra note 16, at 1379 (“[T]he Act specifies in detail the kinds of works that are protected and for how long; creates protection even without registration or notice; assigns exclusive rights and allows for transfer and division of ownership and rights; and creates various remedies including damages and fines.”).
35. Id. (quotations omitted).
enjoy a bundle of rights to reproduce their work, prepare derivative works, distribute, public perform, and display their work.\(^{37}\) To enforce these rights, the Copyright Act empowers copyright owners to sue for infringement.\(^{38}\)

Unfortunately, neither the Act nor its legislative history explains what plaintiffs must show. Courts therefore devised the rule that plaintiffs must prove both that they have a valid copyright in the work and that the defendant wrongfully copied from the plaintiff’s copyrighted work.\(^{39}\) Substantial similarity’s foundation as an ad hoc doctrine finds its origin here.\(^{40}\)

Judging substantial similarity can be daunting because the fact finder must distinguish copyrightable expression from unprotected factual description without the linguistic aids like those found in patent claims.\(^{41}\) The doctrinal patchwork of rules juxtaposed on a factually intensive inquiry produces a morass of unclear precedent almost by default. Part II situates this ad hoc doctrine within an otherwise intricately crafted statutory framework in the Copyright Act.\(^{42}\) After laying out the elements of infringement, the third Part reviews the various tests circuit courts devised to answer the substantial similarity inquiry, and concludes with the limits courts placed on substantial similarity to protect defendants and the public’s right to enjoy uncopyrightable material.\(^{43}\)

The plaintiff must show the defendant copied material from the plaintiff’s copyrighted work rather than creating it or copying it from another source, and that the defendant copied enough copyrighted material from the plaintiff’s work. The plaintiff’s first task is to prove actual copying, and do so using direct or indirect evidence.\(^{44}\) While showing that the defendant directly copied the work verbatim seems the most obvious method to do so, direct


\(^{38}\) See 17 U.S.C. § 501(a) (2016) (“[A]nyone who violates any of the exclusive rights of the copyright owner as provided by sections 106 through 122 . . . is an infringer of the copyright.”).

\(^{39}\) See Feist, 499 U.S. at 361.

\(^{40}\) Id.

\(^{41}\) See infra Section IV.B.

\(^{42}\) See infra Section II.A.

\(^{43}\) See infra Section II.B.

\(^{44}\) See ERIC OSTERBERG, COPYRIGHT LITIGATION: ANALYZING SUBSTANTIAL SIMILARITY, PRACTICE NOTE 5-524-1501 (2020), Thomson Reuters Practical Law, https://ca.practicallaw.thomsontext.com/5-524-1501?transitionType=Default&contextData=(sc.Default)&firstPage=true&OWSessionId=47d232b8b21f43fc290610ca34b2c0913&skipAnonymous=true (noting that types of direct proof of actual copying include admissions, eyewitness testimony, the presence of watermarks, or other features in the defendant’s work conclusively identifying the plaintiff’s work as the source).
proof of actual copying is actually very rare. Eyewitnesses are hard to come by and it is even harder to find alleged infringers who voluntarily confess. This explains why substantial similarity plays such an outsized role in copyright infringement.

Without evidence of direct copying, “striking similarity” is the first way for owners to show actual copying through indirect evidence. Striking similarity is a likeness between works so exact it cannot be explained other than by copying, creating an inference of actual copying or of access to the plaintiff’s work. The second way plaintiffs can prove actual copying by indirect evidence is through circumstantial evidence of access paired with “probative similarity.” This second way requires plaintiffs to show the defendant had a reasonable possibility of accessing their work and that similarities between the works are probative of actual copying. Courts sometimes confuse probative similarity (which looks to the defendant’s actions for evidence of copying) with substantial similarity (which looks to the works themselves to see if the amount copied was permissible).

A plaintiff might prove the defendant had access through widespread dissemination of the plaintiff’s work or if the plaintiff sent the work to the

45. See Howard Root, Copyright Infringement of Computer Programs: A Modification of the Substantial Similarity Test, 68 MINN. L. REV. 1264, 1275–76 (1984) (“Because pirates are unlikely to be obvious about their copying, proof of the direct use of the copyrighted work in preparing a copy is virtually impossible.”).


47. See 4 NIMMER, supra note 5, § 13.01[B], at 13-11 to 13-12 (“It is generally not possible to establish copying . . . by direct evidence as it is rare that the plaintiff has available a witness to the physical act of copying . . . . Therefore, copying is ordinarily established indirectly by the plaintiff’s proof of access and ‘substantial’ similarity.”).

48. Arnstein v. Porter, 154 F.2d 464, 468 (2d Cir. 1946) (“Striking similarity” indicates that “the similarities [between the two works] must be so striking as to preclude the possibility that plaintiff and defendant” created the works independently). Courts consider the similarities’ quirks, including mistakes or idiosyncrasies attributed to copying. See, e.g., Ty, Inc. v. GMA Accessories, Inc., 132 F.3d 1167, 1170–71 (7th Cir. 1997); Lipton v. Nature Co., 71 F.3d 464, 471–72 (2d Cir. 1995).

49. See Gaste v. Kaiserman, 863 F.2d 1061, 1068 (2d Cir. 1988); see also Malibu Textiles, Inc. v. Label Lane Int’l, Inc., 922 F.3d 946, 952 (9th Cir. 2019).

50. Three Boys Music Corp. v. Bolton, 212 F.3d 477, 482 (9th Cir. 2000) (stating that speculative possibility of access is insufficient).


52. See ABKCO Music, Inc. v. Harrisongs Music, Ltd., 722 F.2d 988, 998 (2d Cir. 1983) (deeming that defendant had access to the number one song because defendant may have heard it almost anywhere).
defendant to review. As with striking similarity, the plaintiff can show similar uses of public domain material or errors in the defendant’s work that would be unexpected without copying. Some courts endorse a sliding scale approach, called the “inverse ratio rule,” where “stronger evidence of access requires less evidence of probative similarity.” In *Skidmore*, the Ninth Circuit recently joined other circuits in clarifying the rule did not apply to substantial similarity. It noted that the majority of other circuits (the Second, Fifth, Seventh, and Eleventh Circuits) declined to adopt the rule. *Skidmore* criticized the rule as being illogical, as complete access should not preclude the need for plaintiffs to show similarity, and as the rule provides an unfair advantage to those with more accessible works.

Post-*Skidmore*, it remains uncertain, however, whether and to what extent the inverse ratio rule lives on in the actual copying limb of the copyright infringement inquiry. The Ninth Circuit noted that “[b]y rejecting the inverse ratio rule, we are not suggesting that access cannot serve as circumstantial evidence of actual copying in all cases.” This suggests that access and probative similarity can still prove that actual copying occurred. *Skidmore* appears to leave intact the line of cases holding that striking similarity can constitute actual copying even with limited evidence of access. In any case, plaintiffs who prove actual copying will still need to prove substantial similarity, a challenge which courts have complained of being “vague” and

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55. OSTERBERG, supra note 44.
56. See Skidmore ex rel. Randy Craig Wolfe Tr. v. Led Zeppelin, 952 F.3d 1051, 1069 (9th Cir. 2020); see also Peters v. West, 692 F.3d 629, 635 (7th Cir. 2012) (criticizing and declining to apply the inverse ratio rule).
57. *Skidmore*, 952 F.3d at 1066.
58. *Id.* at 1068 (“[T]he inverse ratio rule unfairly advantages those whose work is *most* accessible by lowering the standard of proof for [probative] similarity.”). The court noted that access can be established readily in cases when the plaintiff’s work is available on YouTube, Netflix, Hulu, Amazon, Spotify, Pandora, and other platforms. *Id.*
59. *Skidmore*, 952 F.3d at 1069.
60. See *id.* at 1064 (holding that a plaintiff can provide sufficient evidence of actual copying by showing that the two works share a striking similarity, which illustrates that “the similarities between the two works are due to ‘copying rather than . . . coincidence, independent creation, or prior common source’” (quoting Bernal v. Paradigm Talent & Literary Agency, 788 F. Supp. 2d 1043, 1052 (C.D. Cal. 2010))).
The substantial similarity inquiry seeks to determine whether two works share such similar copyrightable expression that one infringes upon the other. The inquiry rests on the nature of the alleged infringement, the court’s substantial similarity test, and the limits to substantial similarity—whether the defendant copied unprotectable content as well as the amount and importance of material that the defendant copied from the plaintiff’s work.

The problem is that protectable elements of any work can be dissected to a point where nothing remains but its own unprotectable parts, and case law provides little indication of where to stop in the reductionist analysis. The Second Circuit noted that “there can be no originality in a painting because all colors of paint have been used somewhere in the past.” It follows that just as originality can be found in every allegedly unoriginal work, unoriginality can be found in almost every original work. How much originality will convince a court is inherently uncertain, so what constitutes infringement becomes a crapshoot as well. The difficulty of this task may help explain why judges, believing in their expertise and efficiency, ultimately decided to wrest the substantial similarity inquiry from lay jurors, as will be seen in

61. See Peter Pan Fabrics, Inc. v. Martin Weiner Corp., 274 F.2d 487, 489 (stating that “the test for infringement of a copyright is of necessity vague”); see also Nichols v. Univ. Pictures Corp., 45 F.2d 119, 122 (2d Cir. 1930) (explaining that drawing the line between what is protected and what is not “will seem arbitrary, [but] that is no excuse for not drawing it”); Murray Hill Publ’ns, Inc. v. Twentieth Century Fox Film Corp., 361 F.3d 312, 318 (6th Cir. 2004); Country Kids ’N City Slicks, Inc. v. Sheen, 77 F.3d 1280, 1285 (10th Cir. 1996).

62. See, e.g., Nichols, 45 F.2d at 120–21 (copying plot elements and characters from a play into a motion picture). This could also include copying computer code from the plaintiff’s copyrighted software or a sample of musical recording. OSTERBERG, supra note 44 (listing musical recordings and computer code as examples of “fragmented literal similarity,” where a defendant has exactly copied a portion of plaintiff’s work).

63. See Helfing, supra note 16, at 740 (“By considering only elements deemed protectable at an arbitrary level of dissection, courts fail to reliably identify the similar content that they evaluate for protectability.”).

64. Knitwaves, Inc. v. Lollytogs Ltd., 71 F.3d 996, 1003–04 (2d Cir. 1995); see Apple Comput., Inc. v. Microsoft Corp., 35 F.3d 1435, 1446 (9th Cir. 1994).

65. Cf. Apple Comput., 35 F.3d at 1446 (discussing how courts will compare two works and remove all similarities to determine the originality of a work; in this way, courts may even find some similarities in otherwise largely original works).

66. 4 NIMMER, supra note 5, § 13.03[A] (“[T]he test for infringement of a copyright is of necessity vague.”); see also Gates Rubber Co. v. Bando Chem. Indus., Ltd., 9 F.3d 823, 839 (10th Cir. 1993) (stating that this inquiry “is primarily a qualitative rather than a purely quantitative analysis and must be performed on a case-by-case basis”).
Section IV.B.67

A. Tests for Substantial Similarity

Courts employ three main tests or some combination: the ordinary observer test, the “extrinsic/intrinsic” test, and the “abstraction/filtration/comparison” test.68 Most either adopt the Second Circuit’s ordinary observer test or the Ninth Circuit’s extrinsic/intrinsic test.69 A few adopt an abstraction/filtration/comparison test or variations of these tests.70 All three tests attempt to compare protectable elements in the copyrighted work.71

1. The Ordinary Observer Test

The Second Circuit’s ordinary observer test has the longest vintage of the three, and finds its roots in *Arnstein v. Porter*.72 Composer Ira Arnstein sued Cole Porter for infringement of copies of his songs.73 “These ranged from the sale of a million copies to a copy kept in [Arnstein’s] room that had been ransacked on several occasions in ‘burglaries’ with which defendant ‘could have’ had something to do.”74 There was no direct evidence Porter had ever seen or heard Arnstein’s compositions.75

*Arnstein* made two key contributions. The first contribution was “improper appropriation,” which courts eventually renamed “substantial similarity.”76 The ordinary observer test attempts to compare the two works from the perspective of a hypothetical, average lay observer, and focuses on similarities between the works and not on their differences.77 This is because

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67. See infra Section IV.B.
68. Hickey, supra note 9, at 699 (“A better (though still imperfect) comparison looks to the results under the three main tests: the observer, extrinsic/intrinsic, and A/F/C tests.”).
69. See infra Section IV.A.
70. See infra Section IV.A.
71. Latman, supra note 18, at 739–40.
72. Latman, supra note 18, at 1191 (“One may, in tracing the history of the proof of infringement, justifiably start with the legendary *Arnstein v. Porter*.”).
74. Latman, supra note 18, at 1191.
75. *Arnstein*, 154 F.2d at 467.
76. Latman, supra note 18, at 1192.
77. Id.
similarities suggest defendants saw and copied the works instead of independently creating them. The test also looks at the economic or aesthetic value of the similarities. In his seminal article, Professor Alan Latman observed that the ordinary observer test, “when properly understood, remains the most instructive guide to proving infringement.” History would prove Professor Latman correct. The First, Third, Fourth, Fifth, and Seventh Circuits all apply some form of the ordinary observer test, and as Section IV.A shows, the test has become the nation’s de facto test for substantial similarity.

Arnstein’s second contribution was the centrality of the jury in substantial similarity inquiries. Judge Frank, writing for himself and Judge Learned Hand, noted the appropriateness of denying summary judgment when “there is the slightest doubt as to the facts,” and stressed the importance of in-court cross-examination. Judge Clark wrote a sharp dissent that the majority was creating “chaos, judicial as well as musical,” and upheld the propriety of deciding the issue on summary judgment. As Section IV.B shows, Judge Clark’s dissenting view took root with disastrous consequences for plaintiffs in the decades to come.

However, the ordinary observer test suffered from two principal defects. First, it instructed the audience to assess similarities without specifying what to look for. Second, it provided no guidance on similarities in uncopyrightable elements. The Second Circuit subsequently refined its test to include a “more discerning ordinary observer” capable of filtering out unprotectable elements, such as elements taken from the public domain. Like nature, the law abhors a vacuum, and by then, circuit courts across the country had devised alternative tests of their own.

78. See Id. at 1199–1200.
79. Id. at 1191.
80. Roodhuyzen, supra note 16, at 1391–97, 1402–05 (stating that the First, Third, Fifth, and Seventh Circuits all use some form of the ordinary observer test, with the Fourth Circuit using a similar test of whether “the intended audience would consider the works substantially similar”); see Dawson v. Hinshaw Music, Inc., 905 F.2d 731, 732–33 (4th Cir. 1990) (stating that the court would compare the works through the eyes of the intended audience, which is typically the same as the ordinary observer because copyrighted works are usually intended for the public at large).
82. Id. at 480 (Clark, J., dissenting).
83. See infra Section IV.B.
2. The Extrinsic/Intrinsic Test

Long before Skidmore, the Ninth Circuit captured national attention when it decided to reject Arnstein’s test in Sid & Marty Krofft Television Productions, Inc. v. McDonald’s Corp. 85 The court in Krofft was concerned that “copying” and “substantial similarity” might result in liability when defendants only took unprotected ideas. 86 It decided to introduce a two-step procedure that would first determine whether defendants took only ideas—a test it called “extrinsic because it depends not on the responses of the trier of fact, but on specific criteria which can be listed and analyzed” by experts if necessary; 87 and then, second, whether substantial similarity existed between the expression—a test labeled “intrinsic” because it depends “on the response of the ordinary reasonable person” and not on “the type of external criteria and analysis which marks the extrinsic test.” 88 Plaintiffs would win only if they satisfied both the extrinsic and intrinsic tests, so if either favored the defendant, there would be no infringement. 89

Krofft acknowledged that “[t]his same type of bifurcated test was announced” in Arnstein and that the “unlawful appropriation” in Arnstein’s second prong meant simply taking protected expression rather than unprotected ideas. 90 At the same time, it declared “[w]e do not resurrect the Arnstein approach today. Rather we formulate an extrinsic-intrinsic test for infringement based on the idea-expression dichotomy. We believe that the Arnstein court was doing nearly the same thing. But the fact that it may not have been does not subtract from our analysis.” 91

Professor Latman offered a way to make sense of these seemingly contradictory statements. He explained: “Arnstein focuses on copying versus independent production, Krofft on copying of ideas rather than copying of expression. They slice the infringement apple from different angles.” 92 However, this suggests a conflation of proving copying/access with proving

85. Sid & Marty Krofft Television Prods., Inc. v. McDonald’s Corp., 562 F.2d 1157, 1164–65 (9th Cir. 1977).
86. Id. at 1162.
87. Id. at 1164.
88. Id.
89. See Kouf v. Walt Disney Pictures & Television, 16 F.3d 1042, 1045 (9th Cir. 1994).
90. Sid & Marty Krofft Television Prods., Inc., 562 F.2d at 1164.
91. Id. at 1165 n.7.
92. Latman, supra note 18, at 1203.
infringement has occurred.\textsuperscript{93} In contrast to the ordinary observer test, which compares the works from the perspective of an ordinary observer, the extrinsic/intrinsic test requires courts to compare the works “as a whole,” while filtering out the unprotectable elements.

Whatever the case, the extrinsic/intrinsic test has proven difficult for courts to apply.\textsuperscript{94} The extrinsic step’s focus on similarity in ideas is also odd given that copyright does not protect ideas.\textsuperscript{95} Weighing in on this, Professor Latman noted that “\textit{Krofft} virtually assumes copying and therefore is much less helpful.”\textsuperscript{96} Nonetheless, the Fourth and Eighth Circuits adopted the Ninth Circuit’s extrinsic/intrinsic test, with the Fourth Circuit refining the second step further by assuming the perspective of the “intended audience” of the work, as opposed to the perspective of the general public, language which seems similar to the refined ordinary observer test.\textsuperscript{97} Over a decade later, the advent of a new technology would move the Second Circuit to once again act to create a third test.

3. The Abstraction/Filtration/Comparison Test

The third test for substantial similarity is the abstraction/filtration/comparison test, which the Second Circuit devised to evaluate cases involving computer software.\textsuperscript{98} Decades after \textit{Arnstein}, in \textit{Computer Associates International v. Altai, Inc.}, the Second Circuit noted that while \textit{Arnstein} is useful “when the material under scrutiny was limited to art forms readily comprehensible and generally familiar to the average lay person,” the “highly complicated and technical subject matter at the heart of [nonliteral software] claims” called for a different approach because the internal designs of computer programs were “likely to be somewhat impenetrable by lay observers.”\textsuperscript{99}

The test first identifies elements not protected by copyright using an

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\begin{itemize}
  \item \textsuperscript{93} Professor Sarnoff provided this insight.
  \item \textsuperscript{94} \textsc{Osterberg & Osterberg, supra} note 24, § 3:2.1[H] (“The application of the extrinsic test is a somewhat unnatural task, guided by relatively little precedent.”).
  \item \textsuperscript{95} \textit{See} 17 U.S.C. § 102(b) (2016) (“In no case does copyright protection for an original work of authorship extend to any idea . . . .”).
  \item \textsuperscript{96} Latman, \textit{supra} note 18, at 1203.
  \item \textsuperscript{97} \textit{See}, e.g., Dawson v. Hinshaw Music Inc., 905 F.2d 731, 733–36 (4th Cir. 1990); \textit{see also} \textsc{Osterberg & Osterberg, supra} note 24, § 3:2.1–3:2.3.
  \item \textsuperscript{99} \textit{Id}. at 713.
\end{itemize}
abstraction step—from the general idea to the precise words, images, or sounds used in the work. The second step filters out these elements, and the third step compares protected elements of both works. Each step requires the fact finder to engage in a dissection of what is protectable and what is not, and “expert testimony may be admissible in all three steps.”

In Altai, a dispute arose out of two functionally similar computer programs developed by different companies. The Second Circuit parsed the software into its component parts: source and object code, parameter lists, services required, and outlines. It then removed nonprotected component parts in the public domain or if they were ideas, rather than expressions of ideas, such as the link set in the desktop taskbar. Finally, the Court compared the remaining expressive elements of the plaintiff’s program and found no copying of protectable elements.

William Patry criticized the abstraction/filtration/comparison test as “the most complicated copyright ‘test’ ever conceived” that misses important holistic elements of artistic works by the “brutal . . . desiccation” of element-by-element analysis. Others questioned its usefulness when applied to other works of authorship. While most circuits reserve this test for computer software cases, the Sixth and Tenth Circuits reportedly apply it to all copyright works.

In sum, unlike typical circuit splits, circuits appear divided less by the proper policy goals of substantial similarity, and more by the mechanics of operationalizing those goals. Substantial similarity is not like trademark law, where consumer confusion is addressed through a clearly warranted ordinary

100. See Altai, 982 F.2d at 710 (Once “a court has sifted out all elements of the allegedly infringed program which are ‘ideas’ or are dictated by efficiency or external factors, or taken from the public domain, there may remain a core of protectable expression. In terms of a work’s copyright value, this is the golden nugget.”); Country Kids ‘N City Slicks, Inc. v. Sheen, 77 F.3d 1280, 1285 (10th Cir. 1996).
101. Samuelson, supra note 5, at 1838.
102. Altai, 982 F.2d at 696.
103. Id. at 706–14.
104. Id. at 707, 714–15.
105. Id. at 721.
108. See, e.g., Jon O. Newman, New Lyrics for an Old Melody: The Idea/Expression Dichotomy in the Computer Age, 17 CARDOZO ARTS & ENT. L.J. 691, 698 (1999) (“[O]ne cannot divide a visual work into neat layers of abstraction in precisely the same manner one could with a text.”).
109. OSTERBERG & OSTERBERG, supra note 24, § 3.
observer test; nor is substantial similarity like patent law, where the jury is required to view the infringement through the eyes of an ordinary expert in the field. Might copyright law not do better if it swung completely one way or the other?\textsuperscript{110} Within a single circuit, commentators observed how courts split on how tests should apply to different works of authorship.\textsuperscript{111} If courts struggle to apply these tests, and if both creators and users cannot predictably judge their legal positions, the time may now be ripe for the Supreme Court to step in and finally introduce a nationwide test.\textsuperscript{112}

B. \textit{Limits to Substantial Similarity}

Copyright law encourages creativity by protecting works of authorship but seeks to do so without allowing them to foreclose future authors from building on that idea.\textsuperscript{113} In doing so, copyright policy seeks a balance between competition based on public ideas and incentives to produce original work. All works of authorship at some level embody, use, reflect, rest upon, or apply ideas, so copyright law protects only sufficiently specific applications of an idea. While protection does not “extend to any idea . . . [or] concept . . . regardless of the form in which it is described, explained, illustrated, or embodied in such work,”\textsuperscript{114} it protects the author’s original, particularized expression of the idea.\textsuperscript{115}

\textsuperscript{110} Professor Sarnoff provided this insight.
\textsuperscript{111} See, e.g., Hickey, supra note 9, at 688–89 (stating that “even within a single circuit, courts sometimes vary the test used depending on the type of work at issue (e.g., software vs. visual art)”).
\textsuperscript{112} See Roodhuyzen, supra note 16, at 1418–19. “As the tests become increasingly elusive for both courts and litigants, it is important to consider whether there should be one single test articulated by the Supreme Court, or rather, whether there should be a test at all.” Id. at 1377.
\textsuperscript{113} See Warner Bros. Inc. v. Am. Broad. Cos., 720 F.2d 231, 240 (2d Cir. 1983) (“It is a fundamental objective of the copyright law to foster creativity. However, that law has the capacity both to augment and diminish the prospects for creativity. By assuring the author of an original work the exclusive benefits of whatever commercial success his or her work enjoys, the law obviously promotes creativity. At the same time, it can deter the creation of new works if authors are fearful that their creations will too readily be found to be substantially similar to preexisting works.”).
\textsuperscript{114} 17 U.S.C. § 102(b) (2016).
\textsuperscript{115} See Harper & Row Publishers, Inc. v. Nation Enters., 471 U.S. 539, 547 (1985) (holding that protection extends only to “those aspects of the work—termed ‘expression’—that display the stamp of the [plaintiff’s] originality”); Rogers v. Koons, 960 F.2d 301, 308 (2d Cir. 1992) (“[I]n looking at . . . two works of art to determine whether they are substantially similar, focus must be on the similarity of the \textit{expression} of an idea or fact, not on the similarity of the facts, ideas or concepts themselves.”).
Accordingly, substantial similarity excludes ideas,\textsuperscript{116} \textit{scènes à faire},\textsuperscript{117} and ideas that have limited means of expression, otherwise known as the merger doctrine.\textsuperscript{118} Other limitations, such as the uncopyrightability of colors, letters, and geometric forms, overlap with or are contained within these three main categories.\textsuperscript{119} The fuzzy limits between what is protectible and unprotectible have made substantial similarity a treacherous terrain to navigate.

Copyright is concerned with artistic innovation and excludes protection for a work’s utilitarian qualities. In works with a wide range of expression, protection is “broad,” and a work will infringe if substantially similar.\textsuperscript{120} For instance, in \textit{Star Athletica, L.L.C. v. Varsity Brands, Inc.}, the Supreme Court created a two-prong “separability” test to determine when copyright could cover aesthetic elements of “useful articles.”\textsuperscript{121} In the context of clothing design elements, the Court held that aesthetic elements must be identifiable as art when mentally separated from the article’s practical use, and qualify as pictorial, graphic, or sculptural works when expressed in any medium.\textsuperscript{122} Conversely, if there is “only a narrow range of expression,” which often happens with factual and functional works, “copyright protection is ‘thin’ and a work must be virtually identical to infringe” because the majority of the work is unprotectable.\textsuperscript{123}

\begin{footnotes}
\item[116] See Rogers, 960 F.2d at 308 (explaining that “ideas, concepts, principles [and] processes” are “in the common domain” and are “the inheritance of everyone”).
\item[117] See Zalewski v. Cicero Builder Dev., Inc., 754 F.3d 95, 102 (2d Cir. 2014) (“[E]lements of a work that are ‘indispensable, or at least standard, in the treatment of a given topic’—like cowboys, bank robbers, and shootouts in stories of the American West—get no protection.” (quoting Hoehling v. Universal City Studios, Inc., 618 F.2d 972, 979 (2d Cir. 1980))).
\item[118] See Kepner–Tregoe, Inc. v. Leadership Software, Inc., 12 F.3d 527, 533 (5th Cir. 1994) (“[W]hen an idea can be expressed in very few ways, copyright law does not protect that expression, because doing so would confer a \textit{de facto} monopoly over the idea. In such cases idea and expression are said to be merged.”).
\item[120] Eng’g Dynamics, Inc. v. Structural Software, Inc., 26 F.2d 1335, 1348 (5th Cir. 1994) (“[T]he law is more protective of highly original and highly expressive works than it is of functional and nonfiction works.”).
\item[122] See id. at 1004–05.
\item[123] Mattel, Inc. v. MGA Entm’t, Inc., 616 F.3d 904, 913–14 (9th Cir. 2010) (quoting Apple Computer Inc. v. Microsoft Corp., 35 F.3d 1435, 1442 (9th Cir. 1994) (emphasis omitted); see also Yankee Candle Co. Inc. v. Bridgewater Candle Co., 259 F.3d 25, 36 (1st Cir. 2001) (“This heightened showing ‘is necessary because, as idea and expression merge, fewer and fewer aspects of a work
\end{footnotes}
Basic and utilitarian aspects of a wooden doll, such as the shape of a human body, are not copyrightable. Nor are poses which are friendly, or aspects which aid their manufacture and adaptability. At the same time, the plaintiff’s original stylistic choices qualify as protectable expression if the choices are not dictated by the underlying idea. Similarly in architecture, while there is no copyright protection for the idea of using domes, wind-towers, parapets, and arches, their combination can be protected. Indeed, even “selective and particularized” alterations of a public-domain carpet pattern can be protectable expression as an “original selection” or “arrangement.”

Interwoven within the idea/expression dichotomy, scènes à faire, and the merger doctrine, courts must also consider both the quantitative significance of the copied material and the importance of the material copied in the plaintiff’s work. How much qualitative and quantitative taking is informed by the amount of the author’s original contribution? Some copyrighted works represent significant creative effort and enjoy robust protection, whereas others reflect only scant creativity.

Dissimilarities may be significant if a defendant’s work takes on a different overall concept and feel from the plaintiff’s work or has the elements allegedly taken from the plaintiff. The more differences that exist between
two works, the less likely that the defendant misappropriated the plaintiff’s work. However, dissimilarities are insignificant when they are trivial, due to elements of the plaintiff’s work that the defendant did not copy, or merely added to the material copied from the plaintiff.

The amount and substantiality of the defendant’s copying is the third factor in the fair use analysis, and courts sometimes avoid a substantial similarity analysis by finding that what the defendant copied was fair use. Section IV.C presents novel findings on the overlap between substantial similarity and fair use. Where the defendant used the entire work or made an identical copy, there is no need to compare the parties’ works in a substantial similarity analysis. Where the works are similar with some expressive elements, this general similarity in “total concept and feel” could include defendants who copied plot elements and characters from a play into a motion picture.

Another scenario, known as fragmented literal similarity, arises when defendants copy a small portion or section verbatim. This often happens with musical recordings or computer code. The quantitative or qualitative significance of the copied content to the defendant’s work is irrelevant. De minimis copying, such as a copyrighted work appearing only fleetingly as a background prop in a film, is non-infringing. However, a small quantity of the plaintiff’s material may still be qualitatively significant and hence infringing. Whether the amount of material copied is de minimis is inherently subjective, and blends into whether something is an idea or has merged into one, adding further to the difficulty of applying substantial similarity in practice.

131. See, e.g., Durham Indus., Inc. v. Tomy Corp., 630 F.2d 905, 913 (2d Cir. 1980).
132. See, e.g., Concrete Mach. Co. v. Classic Lawn Ornaments, Inc., 843 F.2d 600, 608 (1st Cir. 1988); Sheldon v. Metro-Goldwyn Pictures Corp., 81 F.2d 49, 56 (2d Cir. 1936) (explaining that “no plagiarist can excuse [his] wrong by showing how much of his work he did not pirate”).
133. See, e.g., SOFA Ent., Inc. v. Dodger Prods., Inc., 709 F.3d 1273, 1278–79 (9th Cir. 2013). Courts also may find that the use was minimal, and therefore non-infringing. See, e.g., VMG Salsoul, LLC v. Ciccone, 824 F.3d 871, 877–87 (9th Cir. 2016).
135. See, e.g., Nichols v. Universal Pictures Corp., 45 F.2d 119, 121 (2d Cir. 1930).
136. See TufAmerica, Inc. v. WB Music Corp., 67 F. Supp. 3d 590, 597–98 (S.D.N.Y. 2014) (finding that it is irrelevant how often the copied portion of plaintiff’s musical recording is repeated in the defendant’s musical recording).
138. See Baxter v. MCA, Inc., 812 F.2d 421, 425 (9th Cir. 1987).
In sum, substantial similarity lacks a properly theorized standard for what amount and what kind of copying constitutes infringement. This makes every case essentially a value judgment by the decision maker. According to Judge Learned Hand, “no principle can be stated as to when an imitator has gone beyond copying the ‘idea,’ and has borrowed its ‘expression[,]’ [d]ecisions must therefore inevitably be ad hoc.”139 Judges, scholars, and practitioners lack knowledge about substantial similarity because many of its most important facets are hidden and can only be uncovered empirically. Every case is fact specific, eliding rote application of formulaic or mechanistic rules. Stepping back to see how the pieces from many cases fit together reveals how standard-less judgments in individual cases are being made in practice.

III. THE EMPIRICAL STUDY

Judges routinely rely on a remarkably limited number of factors in reaching their conclusions.140 They employ heuristics—such as the three substantial similarity tests—to cut through what would otherwise be a morass of information that could paralyze decision making entirely.141 This, however, makes it difficult to draw broader conclusions to coherently inform future cases.142 Scholars employ case content analysis to address this by parsing through court decisions and studying how judges and juries apply rules to facts.143 Section II.A presents this Article’s empirical study design using case

140. See, e.g., Barton Beebe, An Empirical Study of the Multifactor Tests for Trademark Infringement, 94 CAL. L. REV. 1381, 1602 (2006) (“The data collected for this study support[s] . . . the general hypothesis that decision makers, even when making complex decisions, consider only a small number of factors and the more specific hypothesis that, in doing so, decision makers use a core attributes heuristic.”).
143. See, e.g., Lee Petherbridge, On the Decline of the Doctrine of Equivalents, 31 CARDozo L. REV. 1371, 1380 (2010) [hereinafter Petherbridge, On the Decline] (“Content analysis is capable of helping scholars verify, analyze, or refute empirical claims about case law, and it is to that purpose the approach is put in this study.”). For earlier studies where I employed a similar methodology, see Lee Petherbridge et al., The Federal Circuit and Inequitable Conduct: An Empirical Assessment, 84 S. CAL. L. REV. 1293, 1304 (2010); Mark A. Hall & Ronald F. Wright, Systematic Content Analysis of Judicial Opinions, 96 CAL. L. REV. 63, 77 (2008); Lim, Empirical, DOCTRINAL, AND POLICY PERSPECTIVES, supra note 23; Lim, Rebirth or False Dawn?, supra note 23, at 303; Daryl Lim, Judging Equivalence, SANTA CLARA HIGH TECH. L. J. (forthcoming 2020) (reporting on, inter alia,
content analysis. Section II.B states its methodological limitations and caveats.

A. Study Design

This Article relied on a comprehensive pool of cases based on a Westlaw search for all intellectual property law cases discussing substantial similarity between 2010 and 2019. The search returned 285 unfiltered decisions. After filtering out trademark or patent cases, as well as copyright cases mentioning but not discussing substantial similarity, the final pool comprised 242 cases.

The dataset of hand-coded cases included the decision’s date; judicial circuit; whether the case repeated (to ensure cases were not counted more than once when a variable such as venue remains the same even as the number of claims warrant separate reporting); procedural posture; type of work of authorship; substantial similarity tests and limitations; whether a district or appellate court decided the case; case outcomes; identity of appellate judges and district courts; relationship as rivals (or not); mention of willful infringement; and appeal outcome.

In 2013, Katherine Lippman published a student comment reporting on a more limited set of variables in substantial similarity case law. The Lippman study reported on appellate cases between 1923 and 2011 as well as district court cases during that timeframe that resulted in reported appeals. This had the unfortunate consequence of omitting a significant number of the judge-jury dynamic and the impact of equitable triggers) [hereinafter Lim, Judging Equivalence].

144. To compile a sample of opinions, I ran the following Westlaw search: “adv:SY,DI (substantial /3 similarity).” For other studies employing a similar methodology, see John R. Allison & Mark A. Lemley, The (Unnoticed) Demise of the Doctrine of Equivalents, 59 STAN. L. REV. 955, 963 (2007) (“[W]e collected every district court and court of appeals decision on the doctrine of equivalents that appeared in Westlaw . . . .”).

145. Daryl Lim, SS Dataset, (Apr. 30, 2020), https://www.dropbox.com/s/satb8u6480d9qsw/SS- Dataset_Apr%2030.xlsx?dl=0. Even if the analysis did not use a heading, if the opinion discussed the issue, we included the case in the database if there was a specific discussion in the opinion analyzing the relevant law or facts. Id.

146. Lippman, supra note 14.

147. Id. Lippman picked the year 1923 because of Marks v. Leo Feist, Inc. 290 F. 959 (2d Cir. 1923), which she regarded as “the oldest case” the substantial similarity test traced its roots to. See also Eric Rogers, Substantially Unfair: An Empirical Examination of Copyright Substantial Similarity Analysis Among the Federal Circuits, 2013 MICH. ST. L. REV. 893, 896 (2013) (“build[ing] upon Lippman’s work by assigning ‘hard numbers’ to the results of substantial similarity cases at the appellate level, while determining how selected variables influence case outcomes”).
district court opinions with no appeal—between eighty and ninety percent of all district court cases are never appealed. Nonetheless, the large number of cases in the Lippman study—two hundred and thirty four—provides a useful basis for comparison, and leading copyright scholars have cited the study’s results with approval.

This Article builds on the Lippman study and significantly refines it. Using an original hand-coded dataset, in addition to all appellate cases between 2010 and 2019, this Article reports on all district court opinions during that period, regardless of whether parties appealed. This Article also introduces other important refinements including: distinguishing between procedural wins (such as defeating a motion for summary judgment by the other side) and substantive wins (which result in a finding of infringement or non-infringement); the interaction between rivalry and fair use, the impact of willfulness on case outcomes; interaction between outcomes and tests employed and their limitations; interactions between individual appellate judges, as well as interactions between circuit courts on different variables in the dataset; and of course—the demise of substantial similarity.

Substantial similarity, like patent law’s doctrine of equivalents and trademark law’s multifactor likelihood of confusion tests, uses nonliteral analysis to determine infringement in the sense that the offending article need not be identical to the plaintiff’s work of authorship, invention, or sign. The three types of intellectual property rights are, of course, also different in significant ways. With substantial similarity, courts determine what is copyrighted and what is copied jointly. In contrast, patent law’s doctrine of equivalence maps patent scope to patent claims, while trademark law focuses on the similarity of marks and defendants’ willful infringement in determining likelihood of confusion. Nonetheless, like zoology, knowing how a member of an animal species behaves and why it has resisted decline seen in other species in the same genus can help broaden our understanding of the law.

149. See Lippman, supra note 14, at 535.
151. See infra Part IV.
152. See supra note 27 and accompanying text. Professor Sarnoff provided this insight.
153. See infra Part IV; Beebe, supra note 140, at 1582.
beyond niche areas and promote cross-fertilization of insights. This Article discusses these insights in Parts IV and V.

B. Limitations and Caveats

This Article initially used Excel to hand-code the data before converting it to IBM SPSS Statistics to generate the graphs and crosstabs. Like all empirical studies, this one has its limitations and caveats. They fall into two main groups. The first relates to the dataset and statistics, and the second relates to the nature of litigation.

1. The Database and Statistics

There are several well-recognized limitations to case content study databases. First, coding “may result in incomplete or inaccurate coding, despite cross-coding and verification using a population sample.”154 Given, however, “that the focus is on features of written decisions,” “the data remains valid as long as it is recognized to refer to a specific population rather than a sample of all cases in all possible worlds.”155 Second, cases gleaned from legal databases such as Westlaw are known to underreport jury decisions.156 To some degree, that can be mitigated by comparing it to other studies which employ similar methods to control for that feature. In this case, this study on substantial similarity looked to a study on patent law’s doctrine of equivalents.157

Like earlier empirical studies employing the case content analysis method, this study avoids regression analysis because “invariance produces enormous regression coefficients and standard errors that severely limit the utility of the regression results.”158 Instead, this Article employed the Fisher Exact Test for contingency tables to test the null hypothesis that a case

154. See Lim, supra note 142.
155. Id.
156. See Allison & Lemley, supra note 144, at 963–64 (“The universe of all decisions is of course different from the universe of those reported in Westlaw, and in particular our study underreports jury decisions. But our focus on written decisions (both reported and unreported) allows us to parse the grounds for decision and the reasoning of the opinions.”).
157. See infra Section IV.B.
158. Beebe, supra note 140, at 1600 n.85. “Regression analysis is inappropriate” for these studies, raising “the problem of ‘zero cell count’ in which the dependent variable, here, the outcome of the multifactor test, is invariant for one or more values of an independent variable.” Id. at 1600 & n.85.
attribute is independent of case outcome.\textsuperscript{159} This contingency table approach is more appropriate than regression because the outcomes and attributes are all categorical variables; furthermore, a Fisher Exact Test is more appropriate than a chi-squared test because many of the cells have expected counts less than five. This study calculated Monte Carlo p-values with 50,000 samples.\textsuperscript{160} For the statistical analysis, the three cases which were repeated and the three cases which resulted in ‘Cross SJ both denied’ were removed (six cases in total).

When performing a hypothesis test, a smaller p-value is indicative of stronger evidence against the null hypothesis, and typically a p-value below .05 is considered statistically significant evidence against the null hypothesis. This study performed ten hypothesis tests (one for each attribute), so using a Bonferroni procedure to control false positives would suggest a cutoff of .05 / 8 = .00625. The p-values shown have been adjusted by a Bonferroni-Holm procedure which controls the probability of committing at least one Type I error (falsely rejecting a null hypothesis) across all tests.\textsuperscript{161} The number of data points in this instance is naturally limited by the cases which have been argued, and the fact that the null hypothesis of independence is not rejected for all but the posture attribute may be due to the small sample size. The descriptive charts speak for themselves, and the data is still informative. In all tests except those looking at circuit variances, the null hypothesis of independence is rejected in favor of the alternative hypothesis that the attribute is associated with outcome. The tests only concern association and should not be interpreted to imply a causal relationship between attribute and outcome. This Article employs simple classifications according to certain factor outcomes and presents cross tabulations of the test outcome by factor outcomes and factor outcomes by test outcome.\textsuperscript{162} Finally, the reported data is kept to whole numbers without decimal places, following the convention

\textsuperscript{159} Testing Independence: Chi Squared vs. Fisher’s Exact Test, DATA SCIENCE BLOG (October 17, 2018), https://www.datascienceblog.net/post/statistical_test/contingency_table_tests/ (comparing the chi-squared test and Fisher’s exact test and concluding that “[g]enerally, the Fisher’s exact test is preferable to the chi-squared test because it is an exact test”).

\textsuperscript{160} See G.H. Freeman & J.H. Halton, Note on an Exact Treatment of Contingency, Goodness of Fit and Other Problems of Significance, 38 BIOMETRIKA 141 (1951); Sture Holm, A Simply Sequentially Rejective Multiple Test Procedure, 6 SCANDINAVIAN J. OF STAT., 65 (1979).

\textsuperscript{161} See E.L. LEHMANN & J.P. ROMANO, TESTING STATISTICAL HYPOTHESES 351 (Casella et al., eds. 3rd ed. 2010).

\textsuperscript{162} See Lim, supra note 145.
used in other empirical studies.\textsuperscript{163}

2. The Dynamics of Litigation

Analysis of judicial opinions has well-known limitations.\textsuperscript{164} Statistics fail to account for extralegal factors influencing judging such as summary affirmances, the state of the case record on appeal, and judicial deliberations in the opinion.\textsuperscript{165} Litigants may consider the expertise and reputation of the district court judge in deciding whether to appeal, introducing selection bias effects into the appellate data.\textsuperscript{166} Moreover, most cases settle, so decided cases are a nonrandom subset of all cases.\textsuperscript{167}

The complexity of copyright litigation also makes it difficult to generalize, from even a study covering hundreds of cases.\textsuperscript{168} Venue selection is a significant feature in intellectual property litigation, and parties are not randomly distributed throughout the judicial districts.\textsuperscript{169} Some district courts may hear more cases that eventually settle or that were filed based on domicile. District court judges are therefore not assigned a random sample of

\textsuperscript{163} See, e.g., Ted Sichelman, \textit{Myths of (Un)certainty at the Federal Circuit}, 43 LOY. L.A. L. REV. 1161; see Ryan T. Holte & Ted Sichelman, \textit{Cycles of Obviousness}, 105 IOWA L. REV. 107, 158 (2019); see also T J Cole, \textit{Too Many Digits: The Presentation of Numerical Data}, 100 ARCHIVES OF DISEASE IN CHILDHOOD 608, 609 (2015) https://adc.bmj.com/content/100/7/608.full ("The general principle is to use two or three significant digits for effect sizes, and one or two significant digits for measures of variability.").


\textsuperscript{168} See David L. Schwartz, \textit{Explaining the Demise of the Doctrine of Equivalents}, 26 BERKELEY TECH. L.J. 1157, 1188 (2011) ("Because patent litigation as a whole is so complex, it is incredibly complicated to develop and test empirical models."); Petherbridge, \textit{On the Decline}, supra note 143, at 1380 (noting biases inherent in this approach such as “unobserved reasoning, selection bias, and strategic behavior”).

patent lawsuits, since they are assigned cases from the judicial district where they sit. Circumstances such as a particular judge or jury may cause a case to settle, whereas the same case before another judge or jury could proceed to an appeal. This Article focuses on how appellate and lower courts interpret precedent. Those interpretations are not uniform and can never be so.

Another limitation concerns case outcomes. The Priest-Klein “selection hypothesis” predicts that, given various conditions, plaintiff win rates at trial should approach fifty percent, because only the close cases survive settlement—or summary adjudication. The hypothesis assumes parties have equal stakes in the litigation for it to be true. More recent studies have cast the fifty percent hypothesis in doubt, including those dealing specifically with intellectual property law. As Professors Ryan Holte and Ted Sichelman noted, “[C]hanges in litigation budgets, attorney quality, and other unobservable factors” may have changed the behavior of parties, rather than judicial decision making. Technological quirks, as well as the nature of the parties, result in fact-specific outcomes; and so might multiple legal

170. Schwartz, supra note 166, at 241–42.
171. See id. at 242 n.119 (“[I]f [judges] have a really tough case, they can put tremendous pressure on the parties to settle so there won’t be an appealable order.” (quoting Eric Herman, Charting the Yays and Nays in Federal Court, CHI. L. 1, 10 (1996))).
172. See Jeffrey J. Rachlinski, Does Empirical Evidence on the Civil Justice System Produce or Resolve Conflict?, 65 DePaul L. Rev. 635, 636 (2016) (“[E]ven when the empirical scholars completely agree on the underlying facts, interpretation of the results can dramatically differ. Empirical legal scholarship is still worth conducting, but the hope that it will resolve partisan debates in law is unrealistic.”).
174. Id. at 24–29.
176. Holte & Sichelman, supra note 163, at 161.
177. See Schwartz, supra note 168, at 1187 (“For example, patent litigation between branded and generic drug manufacturers differs from patent litigation over a business method patent held by a non-
doctrines which may be interrelated so changes in one may affect another.\textsuperscript{178}

Relatedly, the percentage of patentee wins must be regarded with some caution in concluding whether it is important or not. For example, in employment discrimination litigation, the plaintiff win rate is thirty-three percent.\textsuperscript{179} However, the literature endorses the importance of employment discrimination training to avoid litigation.\textsuperscript{180} One reason may be because the stakes are so asymmetric. To refine the baseline for comparison, this Article looks instead at results from comparable studies such as outcomes in patent litigation.\textsuperscript{181} With these caveats in mind, the discussion turns to the theory underlying substantial similarity and to the points of departure from conventional wisdom in practice.

IV. THEORY AND PRACTICE

Substantial similarity is in unprecedented decline. This Part describes how and why. Plaintiffs struggle to prove copyright infringement in a way never-before seen. Neither the tests courts apply nor the circuits they reside in adequately account for this startling finding. Instead, this Article identifies two factors: pretrial motions and non-rival defendants, as well as the surprising irrelevance of two others—bad faith and the nature of the works at issue.

A. The Demise of Substantial Similarity

In the 1970s, plaintiffs enjoyed remarkable success. The Lippman study reported that plaintiffs won sixty-three percent of cases, blowing through even the generous fifty percent mark predicted by the Priest-Klein hypothesis.\textsuperscript{182}

\textsuperscript{178} Id. at 1188 (“Changes in precedent can alter lawyers’ behavior in drafting patents. Furthermore, changes in precedent can also influence party behavior in litigation.”).


\textsuperscript{180} See, e.g., Todd J. Maurer & Nancy E. Rafuse, Learning, Not Litigating: Managing Employee Development and Avoiding Claims of Age Discrimination, 15 ACAD. MGT. PERSPECTIVES 110 (2001).

\textsuperscript{181} See infra Section IV.A.

\textsuperscript{182} Id.; see also supra Section III.B.2. As mentioned in Section III.B, the Lippman dataset only reports on appellate cases and district court cases with appellate opinions.
By the 1980s, plaintiffs won thirty-six percent of the time. The figure fell to twenty-two percent between 1995 and 2000. Like the proverbial canary in a coalmine, the Lippman study conjectured that substantial similarity’s decline mirrored a shift in copyright law against owners as the Supreme Court ruled against them on an array of issues ranging from copyrightability to fair use. When we look at Supreme Court cases from the last twenty years, the Court favored plaintiffs in nine out of twelve copyright cases, with only three favoring defendants. This should have been a boom time for

183. Lippman, supra note 14, at 538.
184. Id. at 539.
185. Id. at 540–41. Of the five copyright decisions between 1970 and 2010, three ruled against the plaintiff. See Feist Pub’ns, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 363 (1991) (data compiled in telephone directory were uncopyrightable); Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 454–55 (1984) (time shifting was fair use); Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569, 571–72 (1994) (appropriation of song elements in parody was fair use); see also Lippman, supra note 14, at 541 (“[Campbell] may have induced a trend in substantial similarity decisions to construe the boundaries of infringement more liberally, absolving more alleged infringers from liability and impacting the decline in substantial similarity win rates through the mid-1990s.”). But see Harper & Row Publishers, Inc. v. Nation Enters., 471 U.S. 539, 569 (1985) (unauthorized publication of verbatim excerpts from unpublished memoirs was not fair use); Stewart v. Abend, 495 U.S. 207, 236 (1990) (holding that statutory successors were entitled to renewal rights though author previously assigned them to another party).
187. See Fourth Estate Pub. Benefit Corp. v. Wall-Street.com, LLC, 139 S.Ct. 881, 892 (2019) (holding that a copyright claimant may commence an infringement suit “not when an application for registration is filed, but when the Register has registered a copyright after examining a properly filed application”); Rimini Street, Inc. v. Oracle USA, Inc., 139 S.Ct. 873, 875–76 (2019) (holding that federal district courts can award “full costs” to a party in copyright litigation only in six categories of
plaintiffs. It was anything but.

Plaintiffs won a trifling 11% of cases at the district courts between 2010 and 2019 (compared with 24% between 1923 and 2011) and 0% on appeal between 2010 and 2019 (compared with 32% between 1923 and 2011). Compared to plaintiff nonliteral infringement win rates in doctrine of equivalence cases of 21% (district court) and 22% (on appeal), the figures for modern substantial similarity cases are low.

Plaintiff win rates on procedure were higher—23% (district court), but only for successfully fending off a defendant’s motion to dismiss or summary judgment motion. The procedural win rate on appeal in favor of plaintiffs was 3%. What could have accounted for these precipitous declines?

1. The Tests for Substantial Similarity?

Given the controversy they attracted over the years from commentators, the first culprit would be the substantial similarity tests courts employ. The Lippman study noted that “[s]uch a significant downturn may reflect the impact of then-recent decisions that either outlined a new test or applied an old test in a new way.” That conclusion has intuitive appeal. Courts have no consistent way to compare the two works, and there are other points of disagreement, including whether the baseline to assess similarity should be the original work or the accused work. According to the Lippman study, the ordinary observer test dominated the
dataset, accounting for 55% of appeals cases between 1923 and 2011.\textsuperscript{194} Courts applied the extrinsic/intrinsic test in only 28%, and the abstraction/filtration/comparison test in 7% of cases.\textsuperscript{195} Yet, the tests generally made little difference to the outcome during that period.\textsuperscript{196} How do modern cases compare? This Article found that between 2010 and 2019, outcomes differed more noticeably. Plaintiffs won 5% of the time when district courts employed the ordinary observer test.\textsuperscript{197} They won 2% under the extrinsic/intrinsic test, lower even than when the court did not identify a test (4%).\textsuperscript{198} This decimation across the board, regardless of tests employed, makes the tests employed an unlikely culprit.

Figure 1 shows test variations across circuits (both district and appellate levels), clearly showing the ordinary observer test’s dominance in Second Circuit courts and the extrinsic/intrinsic test in Ninth Circuit courts. Most circuits track one or the other, with the Sixth and Tenth Circuits employing both interchangeably. Few courts employed the abstraction/filtration/comparison test, and none applied more than one test. Figure 2 shows the stark difference in relative win rates between defendants and plaintiffs under the various tests, with plaintiffs faring relatively better under the extrinsic/intrinsic test than the ordinary observer test. Figure 2 also shows near-parallel lines between substantive and procedural plaintiff wins, regardless of the test employed.

\begin{itemize}
\item \textsuperscript{194} Lippman, \textit{supra} note 14, at 544.
\item \textsuperscript{195} \textit{Id}.
\item \textsuperscript{196} \textit{Id.; see also id. at 546} (finding that plaintiffs succeeded within a consistent range—the ordinary observer test (33%), the extrinsic/intrinsic test (25%), and the abstraction/filtration/comparison test (24%)). The range of plaintiff success demonstrates that “at least in terms of overall substantial similarity win rates, if there is an inequity underlying the case law, it should not be attributed to the tests alone.” \textit{Id}.
\item \textsuperscript{197} \textit{See Lim, \textit{supra} note 145}.
\item \textsuperscript{198} \textit{Id}.
\end{itemize}
Figures 3 and 4 reveal the dynamics of limitations on win rates at the district and appellate courts. The idea-expression dichotomy dominates both. When a court mentions more than one limitation, the result is strikingly
adverse for the plaintiff, with this variance seen more markedly at the district court level than at the appellate courts. Finally, cases where district and appellate courts articulated more than one limitation dominated both levels, possibly indicating a level of sophistication and comfort with the law on substantial similarity.

**Figure 3 | Limitations by Outcomes (District Courts) (2010–2019)**
2. Circuit Variances?

The literature offers a second possibility—circuit variances. Based on a quantitative analysis of published copyright decisions cross-referenced to decisions discussed in copyright case books, Professor William Ford observed in 2006 that “the Second and Ninth Circuits, along with the Supreme Court and the Southern District of New York, are the most influential courts in the development of copyright law.”

The Second Circuit’s copyright decisions also defined all aspects of copyright law. Concerning substantial similarity:

[C]ourts, scholars, and lawyers consider the Second Circuit’s infringement analysis to be part of the modern copyright law canon. While a few circuits have made important modifications to its central

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200. Id. at 41 (“Overall, the Second Circuit is the clear leader in terms of experience and influence.”); see also Kenneth A. Plevan, The Second Circuit and the Development of Intellectual Property Law: The First 125 Years, 85 FORDHAM L. REV. 143, 143 (2016) (“There is no question that the Second Circuit has had a significant influence on the development of U.S. intellectual property law, especially copyright law, and the reasons are evident. Historically, many of the business segments for which intellectual property rights were key assets, or at the heart of the endeavor, were concentrated in the New York area, including television, music, advertising, publishing, and theater.”).
approach, the “Arnstein test,” as it has come to be known, remains the dominant approach to copyright infringement analysis today.  

Could the fact that the Second Circuit hears most substantial similarity cases be the reason for its demise? Intriguingly, outcomes based on circuit variations have been remarkably consistent. Between 1923 and 2011, the Second Circuit and Ninth Circuit reported comparable win rates at both the trial (24% compared with 22%, respectively) and appellate levels (33% compared with 34%, respectively). Between 2010 and 2019, Second Circuit district courts found for plaintiffs in 13% of cases and there were no appellate cases. At the Ninth Circuit, plaintiff win rates were 10% (district court) and 8% (on appeal) (see Figure 5, below), again reflecting a consistently low win rate.

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201. Balganesh, supra note 5, at 794.
202. See Lippman, supra note 14, at 560; see also id. at 535 (reporting that over eighty percent of the appellate opinions “were issued from 1980 to 2011”).
203. See Lim, supra note 145.
204. See id.; supra Figure 5.
Figures 5 and 6 reveal an interesting result. Despite the overall dominance of Second Circuit cases, the Ninth Circuit was largely responsible for developing substantial similarity jurisprudence over the past decade. However, Figure 5 shows a large spike of the Second Circuit district courts compared to those from the Ninth Circuit. As those cases get appealed, the Second Circuit will likely displace the Ninth Circuit’s dominance. Those seeking a template upon which to build a unifying test, including the Supreme Court, would do well to start with the Second Circuit’s ordinary observer test or risk throwing copyright law into disarray.

There is a general downward trend favoring affirmances, with reversals in civil cases overall falling from 25% in 1960 to 9% in 2003. With substantial similarity, the reversal rate seemed to track that trend at 25% between 1923 and 2011, dropping to a statistically insignificant number between 2010 and 2019. One reason could be an increasing familiarity with substantial similarity. High reversal rates in the earlier years may simply

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206. Lippman, supra note 14, at 560; see also Lim, supra note 145.

207. Lippman, supra note 14, at 560–61.
reflect a normal period of instability and adjustment as district courts align themselves to the expectations of their respective appellate courts.\textsuperscript{208} The sum of the two findings—relative uniformity of outcomes across circuits and high affirmance rates—may help inform the debate whether an appellate circuit with exclusive jurisdiction for copyright law matters.\textsuperscript{209} Congress established the Court of Appeals for the Federal Circuit in 1982 and gave it exclusive jurisdiction over patent appeals to introduce expertise and uniformity in patent law.\textsuperscript{210} Detractors over the years have argued against the Federal Circuit’s exclusive jurisdiction.\textsuperscript{211}

For the purposes of this Article, however, the findings suggest that neither the test nor the circuits themselves adequately account for the demise of substantial similarity. What else could it be? The Lippman study provides a critical clue to the demise of substantial similarity.

According to the Lippman study, 55\% of cases where the plaintiff won were bench and jury trials.\textsuperscript{212} In contrast, it observed that only 14\% of such trials ended up favoring alleged infringers.\textsuperscript{213} Summary judgment motions flip the picture, making up only 3\% of plaintiff wins, but a whopping 51\% of defendant wins.\textsuperscript{214} The Lippman study concluded that “a defendant-favorable district court decision finding that the works are not substantially similar is less likely to be overturned on appeal because, in most cases, that decision was made at the summary judgment stage; and, presumably, the case is weak or frivolous.”\textsuperscript{215}

While plausible, a conclusion that pretrial motion dismissals equate plaintiffs bringing weak or frivolous cases is unsatisfying. The fact is that as a matter of litigation burden, defendants have it easier.\textsuperscript{216} They need only

\begin{thebibliography}{99}
\bibitem{209} Michael Landau & Donald E. Biederman, \textit{The Case for a Specialized Copyright Court: Eliminating the Jurisdictional Advantage}, 21 HASTINGS COMM. & ENT. L.J. 717, 719 (1999) (“[C]opyright is a highly specialized and technical body of law . . . that would be best handled by specialized judges.”).
\bibitem{210} Lim, \textit{The Federal Circuit’s “Great Dissenter,”} supra note 23, at 876–77.
\bibitem{212} See Lippman, supra note 14 at 556.
\bibitem{213} \textit{id.}
\bibitem{214} \textit{id.}
\bibitem{215} \textit{id.} at 557.
\bibitem{216} Steven T. Lowe, \textit{Death of Copyright}, 33 L.A. LAW. 32, 40 (2010) (“Case law has provided

751
show that plaintiffs failed to make out their case on the pleadings, specifically by showing a lack of substantial similarity, for instance, through the copying of unprotected elements; in contrast, plaintiffs must satisfy a gamut of factual and legal issues to prevail. Moreover, the evidentiary requirements under summary judgment are lower than at trial. A more robust answer, therefore, needs to consider how courts make substantial similarity determinations.

B. Judge and Jury Dynamics

Unlawful appropriation rests on the plaintiff’s protectable expression as well as on the relevant public’s impression for whose primary benefit copyright was created in the first place. For this reason, Arnstein placed juries at the center of its test for substantial similarity. It emphasized that a jury was “peculiarly fitted to determine” the response of the ordinary lay hearer, noting that:

The plaintiff’s legally protected interest is not, as such, his reputation as a musician but his interest in the potential financial returns from his compositions which derive from the lay public’s approbation of his efforts. The question, therefore, is whether defendant took from plaintiff’s works so much of what is pleasing to the ears of lay listeners, who comprise the audience for whom such popular music is composed, that defendant wrongfully appropriated something which belongs to the plaintiff.

The factual determination by the jury is a safety valve to guard against judges cloistered in their courtrooms becoming arbiters of public perception. This judicial usurpation breeds precisely the sort of arbitrariness that courts and copyright scholars complain about. The need for accountability becomes defendants with an impenetrable shield of confusing and often contradictory principles that thwart plaintiffs in nearly every instance, with only tiny cracks in that shield providing a mere glimpse of hope.”.

217. See Lippman, supra 14, at 523–24 (discussing what is required to lay out a prima facie case of copyright infringement including the substantial similarity requirement).

218. See Arnstein v. Porter, 154 F.2d 464, 473 (2d Cir. 1946); see also Balganesh, supra note 5, at 794 (“[C]ourts around the country take their guidance on the copyright infringement analysis from a landmark decision of the Second Circuit that is believed to have defined the structure of the infringement inquiry and the jury’s role in it . . . .”)

219. See supra Section II.B.

220. Arnstein, 154 F.2d at 473.
even more evident when one realizes that almost every judge approached substantial similarity as a matter of first impression when compared to other areas of intellectual property law. For example, the appellate judges hearing doctrine of equivalents appeals over the same period encountered an average of sixteen cases each.

With judges hearing substantial similarity appeals, it would be impossible to produce a graph anywhere close to Figure 7. Instead, almost every appellate judge heard a substantial similarity case as a matter of first impression. Each heard an average of one case each decade. District court numbers are only marginally better. The Southern District of New York has the greatest level of expertise in substantial similarity. It heard 31% of all district court cases. The next highest figure, at a distant 7%, came from the District of Massachusetts, and not from any district court in the Ninth Circuit. However, even in the Southern District of New York, each judge

![Figure 7](image_url)

**Figure 7 | Appellate Outcomes in Doctrine of Equivalents Cases**

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221. See Lim, supra note 145.
222. See infra Figure 9.
223. See infra Figure 11.
224. See Lim, supra note 145.
225. See id.
heard less than two cases each decade.\footnote{226}  
Professor Suja Thomas’s work shows divisions between courts will be frequent whenever courts substitute their own judgment of the facts for a jury verdict.\footnote{227}  
This is because judges look at what a single juror would find and fail to replicate the hive mind of an actual jury and fail to account for the group decision-making dynamics.\footnote{228}  
This led Thomas to conclude that judges who attempt to decide dispositive motions based on their preconception of what a reasonable jury would find fail and instead splinter legal certainty.\footnote{229}  

Worse, the problem will not likely be remedied on appeal. Appellate judges face the same difficult mental hurdles as the district judges below.\footnote{230}  
Professor Irina Manta observed that the likelihood of overturning the lower court’s determination in copyright cases is low, given the high standard of review and the appellate court’s awareness that overturning those decisions may strain limited judicial resources and may result in an artificially lower number of appeals succeeding.\footnote{231}  
This may help explain the enduringly low plaintiff win rates. At some point, modern copyright plaintiffs were sucked into a vicious cycle of pretrial motions and appeals that suppressed their win rates over time. 

This Article reveals a reversal rate of 3\%, and an affirmance rate of 82\% percent.\footnote{232}  
These are astoundingly high figures. Judges made a similar coup in patent cases, usurping from juries the responsibility of interpreting patent claims.\footnote{233}  
Scholars report high reversal rates on appeal of between 35\% and 44\%.\footnote{234}  

Intriguingly, the Lippman study observed a significantly higher reversal rate, and attributed it to the fact that “a defendant-favorable district court
decision finding that the works are not substantially similar is less likely to be overturned on appeal because, in most cases, that decision was made at the summary judgment stage[.] and[ ] presumably, the case is weak or frivolous.”

What does this observation mean for low reversal rates when district courts find in favor of defendants? It may well be that defendants are mounting stronger cases in their own defense. It may also be a function of appellate courts not wanting to commit district court resources to reopening cases for trial.

Or, as Lippman suggests, it might be a temporal quirk that more frequent reversals “reflect a period of uncertainty in the law [which] decrease[s] over time or a disagreement between district court and appellate judges on the . . . merits.”

In any case, it is questionable at best whether judges have better expertise at substantial similarity determinations than juries.

235. Lippman, supra note 14, at 557; see also id. at 560 (reporting higher reversal rates—15% at the Second Circuit and 23% at the Ninth Circuit—suggesting less homogeneity and greater scrutiny of district court opinions).

236. Professor Sarnoff provided this insight.

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**Figure 8: Appellate Judges (2010–2019)**
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**Figure 10** | **Second Circuit District Judges (2010–2019)**

758
Over the years, courts and commentators continued to extol the centrality of juries. In theory, this would safeguard plaintiffs against defendants seeking a quick disposal of the case on a motion to dismiss or summary judgment. In practice, this Article reveals a surprising partnership between judges and defendants to usurp the jury’s role in substantial similarity inquiries.

Defendants may bring motions for summary judgment and so invite judges to make favorable and expedient determinations. When this happens, judges may rule on substantial similarity as a matter of law when defendants offer sufficient evidence in pleadings that no reasonable jury could find unlawful appropriation. Courts have also extended this practice to motions to dismiss. In an astonishing 62% of cases, judges readily accepted a defendant’s invitation to rule on substantial similarity on one motion or the other without an iota of jury input.

238. See Loren & Reese, supra note 5, at 646 (“Substantial similarity is a question of fact.”); Ben Depoorter & Robert Kirk Walker, Copyright False Positives, 89 NOTRE DAME L. REV. 319, 351 (2013) (noting that “a showing of substantial similarity is a question of fact”); see also Peter F. Gaito Architecture, LLC v. Simone Dev. Corp., 602 F.3d 57, 63 (2d Cir. 2010) (“[Q]uestions of non-infringement have traditionally been reserved for the trier of fact.”); Shaw v. Lindheim, 919 F.2d 1353, 1355 (9th Cir. 1990) (“[S]ummary judgment is not highly favored on questions of substantial similarity in copyright cases . . . .” (quoting Narell v. Freeman, 872 F.2d 907, 909 (9th Cir. 1989))); Oren Bracha & John M. Golden, Redundancy and Anti-Redundancy in Copyright, 51 CONN. L. REV. 247, 275 (2019) (noting “the substantial similarity standard, which is applied case by case and often by juries”).

239. See, e.g., Herzog v. Castle Rock Entm’t, 193 F.3d 1241, 1247 (11th Cir. 1999) (noting that courts historically have been reluctant to make subjective determinations in copyright cases regarding the similarity between two works on summary judgment); TufAmerica, Inc. v. Diamond, 968 F. Supp. 2d 588, 604 (S.D.N.Y. 2013) (denying motion to dismiss copyright claim against defendant who used the lyrical phrase and recording “say what” sampled from plaintiff’s song); see also ERIK OSTERBERG, COPYRIGHT LITIGATION: ANALYZING SUBSTANTIAL SIMILARITY, PRACTICAL LAW PRACTICE NOTE 5-524-1501 (2020).

240. See, e.g., Boone v. Jackson, 206 F. App’x 30, 32 (2d Cir. 2006) (affirming summary judgment in favor of defendant as to use of lyrical phrase “holla back” and noting deposition testimony that contradicted plaintiff’s prior assertions).

241. See, e.g., Litchfield v. Spielberg, 736 F.2d 1352, 1358 (9th Cir. 1984) (upholding summary judgment on the ground that no reasonable jury could find substantial similarity).

242. Peter F. Gaito, 602 F.3d at 64 (noting that when evaluating substantial similarity on a motion to dismiss, “no discovery or fact-finding is typically necessary, because ‘what is required is only a visual [aural] comparison of the works[.]’” (quoting Folio Impressions, Inc. v. Byer Cal., 937 F.2d 759, 766 (2d Cir. 1991))).

243. See Lim, supra note 145.
Figure 11 shows the devastating impact of defendant pretrial motions on plaintiff win rates. Plaintiffs prevail about 40% of the time when they bring a pretrial motion, compared to 74% when defendants bring a summary judgment motion and 76% on a motion to dismiss.\(^{244}\)

The Lippman study corroborates this finding and suggests that the partnership has some history to it.\(^{245}\) It observed that in the mid-1980s plaintiff win rates fell as the practice became comparatively more prevalent.\(^{246}\) It alluded to the fact that

\[\text{[t]his result raises the possibility that summary judgment on the substantial similarity issue may actually decrease the likelihood that a copyright holder will prevail due to the fact that the proper test for substantial similarity—which “requires the response of the ordinary}\]

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\(^{244}\) See Lim, supra note 145.

\(^{245}\) See Lippman, supra note 14, at 554 (tracking the most frequent procedural postures of the appealed district court opinions from 1970 to 2010).

\(^{246}\) See id. Lippman notes that “an increase in summary adjudications coincides with a decline in the frequency of trials, but it also corresponds to a decrease in substantial similarity win rates.” Id. at 557.
In theory, the move from cases based on the earlier 1909 Copyright Act to the 1976 Copyright Act may have influenced the outcome of cases. However, nothing in scholarly commentary indicates a material difference in the test courts applied. For instance, contemporary cases continued to apply *Arnstein*, decided in 1946, without distinguishing between the relevant Acts.

An important related question is whether there are circuit variances in this trend. Robert Helfing anecdotally observed this practice in the context of the Second and Ninth Circuits. Helfing noted that the Second Circuit “has loosened the reins and expressly authorized the summary resolution of claims on the basis of a judge’s emotional response to works of authorship.” In contrast, “[t]he Ninth Circuit has been mostly faithful to this judicial restraint.” Figure 8 shows that Helfing is only partially correct. The Second Circuit granted summary judgments and motions to dismiss to infringers in 67% of its caseload, while the Ninth Circuit did so in 66% of its caseload.

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247. *Id.* (quoting Julie J. Bisceglia, *Summary Judgment on Substantial Similarity in Copyright Actions*, 16 HASTINGS COMM. & ENT. L.J. 51, 55–56 (1993)).


249. *Id.* at 241–43 (noting that because the 1909 and 1976 Copyright Act do not expressly reference the substantial similarity inquiry and Congress and the Supreme Court have failed to give explicit guidance on the test, lower courts are still using various tests developed over time to handle the issue).

250. See *supra* Section II.B.


252. *Id.*

253. See Lim, *supra* note 145.
It is unlikely that judges intend to impede plaintiffs’ right of access to jury trials, but the result of finding evidentiary insufficiency is that the route is blocked. Judges engaging in this practice usually begin with the mantra that “a court may make a finding of non-infringement as a matter of law on summary judgment if the similarity between the works concerns only non-copyrightable elements, or if no reasonable jury, properly instructed, would find as to the protectable elements that the two works are substantially similar,” and then summarily proceed to do so.254 Courts themselves have framed this practice as proper as long as a “court has before it all that is necessary in order to make such an evaluation.” 255

254. Architects Collective v. Pucciano & English, Inc., 247 F. Supp. 3d 1322, 1343 (N.D. Ga. 2017); see, e.g., Home Design Servs., Inc. v. Turner Heritage Homes Inc., 825 F.3d 1314, 1321 (11th Cir. 2016) (standing by the “core premise that judges can, in certain cases, remove the question of substantial similarity from jury consideration”); Peel & Co. v. Rug Mkt., 238 F.3d 391, 395 (5th Cir. 2001) (stating that while substantial similarity “typically should be left to the factfinder, summary judgment may be appropriate if the court can conclude, after viewing the evidence and drawing inferences in a manner most favorable to the nonmoving party, that no reasonable juror could find substantial similarity”); Twentieth Century-Fox Film Corp. v. MCA, Inc., 715 F.2d 1327, 1330 (9th Cir. 1983) (“Summary judgment for defendant is appropriate where works are so dissimilar that a claim of infringement is without merit.”).

255. Peter F. Gaito Architecture v. Simone Development, 602 F.3d 57, 64 (2d Cir. 2010); see Klauber Brothers, Inc. v. The Bon-Ton Stores, Inc., 557 F. App’x 77, 80 (2d Cir. 2014) (observing...
Professor Amy Cohen warned that “the concept of substantial similarity itself has become more, rather than less, ambiguous as it has been subjected to judicial interpretation over the years.” The first step toward legal certainty is to reclaim the jury’s place in the substantial similarity inquiry. For now, however, plaintiffs must take the world as it is, not as they wish it to be. Given the reality of copyright infringement being decided overwhelmingly by judges, having a well-pled case based on written submissions to the court becomes even more important. Attorneys need to conduct a thorough analysis of the two works by creating a chart with similarities and dissimilarities as well as whether the identified elements are likely to be considered protectable or unprotectable. In this regard, plaintiffs would do well to have a detailed and compelling narrative by accounting for factors that count and those that do not. The next section identifies both of these.

C. Rivals and Rogues

The Supreme Court described fair use as providing a guarantee of “breathing space within the confines of copyright,” and it acts as a policy lever for courts to avoid the harshness of finding infringement on the defendant when the circumstances demanded it. Substantial similarity and fair use decisions made by judges or juries are often based on a side-by-side comparison of the works at issue. Courts look at all the relevant factors to determine if there is substantial similarity between the works. This can be a fact-intensive inquiry that typically occurs at trial, as the parties present evidence of the works and offer expert testimony. However, in some cases, a motion for summary judgment or judgment on the pleadings can be granted if there is no reasonable jury could find substantial similarity between the works. For example, if the plaintiff's work is entirely uncopyrightable or if the similarity is due to non-copyrightable elements, the court may determine that the two works are not substantially similar. In such cases, the court may rule on the matter as a matter of law, avoiding the need for a full trial.


257. Peter F. Gaito Architecture, LLC v. Simone Dev. Corp., 602 F.3d 57, at 64 (2d Cir. 2010) (quoting Walker v. Time Life Films, Inc., 784 F.2d 44, 52 (2d Cir. 1986); 3–12 NIMMER ON COPYRIGHT § 12.10 (“T]he works themselves supersede and control . . . any contrary allegations, conclusions or descriptions of the works contained in the pleadings.” (quoting Walker v. Time Life Films, Inc., 784 F.2d 44, 52 (2d Cir. 1986); 4–13 NIMMER ON COPYRIGHT § 13.03 (2009))).

have much in common. Both operate as common law doctrines even though Congress provided a statutory basis for fair use in the Copyright Act of 1976. Both present courts with the challenge of applying a single standard across a wide array of works from software to architectural designs. With both, courts consider the purpose the defendant seeks to achieve and the harm its copying causes the plaintiff and whether the defendant’s copying amounted to misappropriation. Both fair use and substantial similarity are arbitrary, anecdotal, and misunderstood.
Most relevant for this Article, however, is the fact that both fair use and substantial similarity are entrenched in United States copyright law’s utilitarian roots.\textsuperscript{264} The second fair use factor requires courts to examine the “nature of the copyrighted work,” while the third factor asks them to consider “the amount and substantiality of the portion used in relation to the copyrighted work as a whole.”\textsuperscript{265} These are the same questions a court faces in a substantial similarity inquiry.\textsuperscript{266} Indeed, for some, the extent of the overlap between substantial similarity and fair use begs the question whether one or the other is redundant.\textsuperscript{267}

In focusing on the second and third factors, commentators miss the story that the other two factors tell us about substantial similarity. The first fair use factor requires examination of “the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes.”\textsuperscript{268} The fourth fair use factor weighs “the effect of the use upon the potential market for or value of the copyrighted work.”\textsuperscript{269} Collectively, these factors reference the commercial impact that the defendant’s work would likely have on the plaintiff, and are the most influential to courts.\textsuperscript{270}

The practical effect is that the greater the private economic rewards reaped by the defendant to the exclusion of broader public benefits, the more
likely fair use will favor the plaintiff.\textsuperscript{271} “Focusing on economic rewards an artist seeks in pursuing his or her passion disadvantages artists who seek to profit from their work.”\textsuperscript{272} The Second Circuit noted that its core concern is “the unfairness that arises when a secondary user makes unauthorized use of copyrighted material to capture significant revenues as a direct consequence of copying the original work.”\textsuperscript{273} Conversely, a court would find parodies excused by fair use even if the plaintiff satisfies every element of infringement, including substantial similarity.\textsuperscript{274}

Similarly, with infringement, in formulating the ordinary observer test, the Second Circuit reasoned that since a plaintiff’s legally protected interest lies in his or her interest in the potential financial returns from his or her work, the substantial similarity determination should be made by the work’s audience.\textsuperscript{275} As Professor Daniel Gervais observed:

When considering propriety in the infringement analysis, there is a distinction between a commercially consumptive use, on the one hand, and a bona fide creative reuse, on the other hand. It is well established that commerciality is not a bar to a finding of transformative fair use, but it weighs heavily against a finding of fair use in a case involving a consumptive use. An unauthorized consumptive use by a defendant can be considered prima facie improper.\textsuperscript{276}

To some degree, every creator uses preexisting material that others created. Copyright law’s utilitarianism means that the law sides with

\begin{itemize}
\item\textsuperscript{271} See Blanch v. Koons, 467 F.3d 244, 253 (2d Cir. 2006); see also Loren, supra note 270, at 1352 (“If a use by another of expressive content from a copyrighted work affects the sales of that copyrighted work, then that use should be treated with less tolerance in an effort to preserve the incentive effect of the marketable right of the copyright.”).
\item\textsuperscript{272} Loren, supra note 270, at 350.
\item\textsuperscript{273} Blanch, 467 F.3d at 253 (quoting Am. Geophysical Union v. Texaco Inc., 60 F.3d 913, 922 (2d Cir. 1994)).
\item\textsuperscript{274} See, e.g., Campbell v. Acuff-Ross Music, Inc, 510 U.S. 569, 591 (1994) (finding that a rap group’s parody of Roy Orbison’s “Oh, Pretty Woman,” was fair use even if the rap group intended the parody for commercial use because the parody was a transformative use of the song); Blanch, 467 F.3d at 246, 254 (quoting Am. Geophysical Union, 60 F.3d at 923) (finding use of preexisting fashion photographs was a fair use and separating transformative reuse from mere “untransformed duplication,” such as a photocopy).
\item\textsuperscript{275} See Arnstein v. Porter, 154 F.2d 464, 473 (2d Cir. 1946).
\item\textsuperscript{276} See Gervais, supra note 14, at 616.
\end{itemize}
plaintiffs only as far as it is necessary to the advancement of knowledge and learning.277

While plagiarists might be condemned on ethical grounds, courts employing both fair use and substantial similarity have been much more forgiving to non-rivals who used copyrighted work in order to produce their own work the same way.278 When rivals copy, they may infringe due to improper appropriation. In contrast, non-rivals are more likely to fulfill the constitutional direction and their use of the copyrighted works are more likely to be “proper” according to Professor Gervais’s terminology.279 Figure 13 confirms this—when the plaintiff and the defendant were non-rivals, defendants won on the merits a stunning 60% of the time, compared to 28% when the parties were rivals.280

277. See Jeanne C. Fromer, *An Information Theory of Copyright Law*, 64 EMORY L.J. 71, 76 (2014) (“[E]xclusive rights in intellectual property can prevent competition in protected works, thereby allowing the rightsholder to charge a premium for access and ultimately limiting these valuable works’ diffusion to society at large. For another, given that knowledge is frequently cumulative, society benefits when subsequent creators are not prevented from building on previous artistic creations to generate new works.”); see also Loren, supra note 270, at 1352 (“[A] law that is designed to provide an incentive for artists to invest their time and talent in the creation of new works, and as a law that exists in a capitalistic economy, a focus in copyright on monetary effects of the use of another’s expression is understandable.”).

278. See Comput. Assocs. Int’l v. Altai, 982 F.2d 693, 696 (2d Cir. 1992) (discussing the importance of limits on the extent of protection “so as to avoid the effects of monopolistic stagnation”); Loren, supra note 270, at 1348 (“The genesis of fair use is in the recognition by courts of a need to allow for some copying of the expressive content of copyrighted works, lest copyright lead to monopolistic stagnation in expression.”).

279. See Gervais, supra note 14, at 617 (asserting that purely creative use of another’s work, as opposed to copying with “commercial intent,” would “fulfil the constitutional directi[ve]”).

280. See infra Figure 13; Lim, supra note 145.
In addition to rivalry, this Article also examines the impact of willful infringement on case outcomes. Copyright infringement is a strict liability tort. Plaintiffs can establish infringement merely by showing actual copying that resulted in the production of a substantially similar work. Judge Learned Hand worried of its harsh result, and scholars have maintained that liability without fault was immoral, inefficient, and inconsistent with the standard tort practice of only holding liable those defendants who have acted wrongfully. Thus, cases such as Arnstein insist that copying must be “improper,” “unlawful,” “illicit,” or “wrongful[].” Professor Shyamkrishna Balganesh observed that the defendant’s wrongdoing informs the normative aspect of substantial similarity analysis in a manner often ignored by

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281. See supra Section II.B.1.
282. De Acosta v. Brown, 146 F.2d 408, 413 (2d Cir. 1944) (Hand, J., dissenting) (“Ordinarily an act does not become a wrong, when to make it so, one must resort to consequences arising from it in the actual sequence of events which reasonable persons would not anticipate . . . . I can see no reason why the ordinary rule of liability for torts should not apply to copying a copy . . . .”); see, e.g., Steven Hetcher, The Kids Are Alright: Applying a Fault-Liability Standard to Amateur Digital Remix, 62 FLA. L. REV. 1275 (2010) (arguing for a fault liability regime); Kent Sinclair, Jr., Liability for Copyright Infringement—Handling Innocence in a Strict-Liability Context, 58 CAL. L. REV. 940 (1970).
commentators. Similarly, Professor Daniel Gervais observed that juries may find copying if the defendant appeared to be free-riding on the plaintiff’s work, “even though free-riding is not per se illegal.”

Procedurally, juries may fail to distinguish actual copying from substantial similarity and apply a normative analysis of substantial similarity that rests on a value judgement about whether the defendant was a “bad guy.” That dynamic is found in trademark infringement. As Professor Barton Beebe observed, bad intent decisively sealed the fate of the trademark defendant. Similarly in copyright cases, jurors could conclude that the defendant misappropriated more copyrightable material.

In theory, copyright law is clear that the plaintiff need not show the defendant behaved willfully. In practice, courts have shown remarkable fidelity. The data reveals that courts ignore willfulness on the question of substantial similarity. Figure 14 shows both the rarity of willful infringement and its irrelevance to the outcome. Allegations of willful infringement arose only in five cases. Plaintiffs won 2% of those cases, compared to 9% of cases when willful infringement was not at issue.

284. See Balganesh, supra note 14, at 215 (“As a normative inquiry, copyright’s doctrinal device for establishing wrongful copying is the idea of ‘substantial similarity.’”).
286. See Balganesh et. al., supra note 6, at 277 (observing that when jurors engage in a substantial similarity test, they have already seen evidence of actual copying, resulting in confirmation bias to find two works substantially similar).
287. See Beebe, supra note 140, at 1626–31.
288. PAUL GOLDSTEIN, GOLDSTEIN ON COPYRIGHT § 8.1 n.1 (3d ed. 2005) (”[I]nnocence is no defense to an action for copyright infringement.”).
289. Laura G. Lape, The Metaphysics of the Law: Bringing Substantial Similarity Down to Earth, 98 DICK. L. REV. 181, 182 (1994) (“[S]ubstantial similarity and resulting infringement are found without reference to any standard to give substantial similarity meaning and without regard to the impact of the defendant’s activities on the plaintiff.”).
290. See Lim, supra note 145.
Whether the low traction rate has to do with the shift from jury determinations to professional judges disposing of cases via pre-trial motions is an interesting subject for future studies. Similarly, it would be helpful to see if there is a difference in case outcomes between being willful in the intentional sense and being a normatively bad actor. Finally, it would be interesting to know whether willfulness shows up in the data as a strategic means of enhancing damages, and if so, whether there is an appreciable effect.\footnote{Professor Sarnoff provided this insight.} In the meantime, stakeholders will do well to note the impact of non-rivalry on case outcomes while avoiding becoming distracted by allegations of willful infringement.

\section*{D. Works of Authorship}

The Copyright Act of 1976 protects “original works of authorship fixed in any tangible medium of expression.”\footnote{17 U.S.C. § 102(a) (2016).} It lists eight categories of works: literary; musical; dramatic; pantomimes and choreographic; pictorial, graphic,
and sculptural; motion pictures and other audiovisual works; sound recordings; and architectural works.” 293 These categories are neither rigid nor closed. For instance, the Copyright Act of 1790 protected only maps, charts, and books. 294 Musical compositions were routinely registered as “books” until the Copyright Act of 1831. 295 When the computer industry’s growth and profitability of mass-marketed software made illicit copying of computer programs inexpensive, easy, and prevalent, copyright law provided a ready solution. 296 Some studies use as few as two categories, while others used up to six categories. 297 This study used eight categories that best reflected the types of works in the dataset: literary; musical; pictorial, graphical, sculptural; computer programs; factual; architectural; dramatic; and cinematographic works.

With copyright law covering such diverse media types and forms of expression, substantial similarity strains at being a one-size-fits-all test. Unsurprisingly, the literature is rich with calls for courts to better map substantial similarity tests to the type of work at issue. 298 One way to do this is to focus on the similarities in the aesthetic appeal of the artistic works, rather than on both their similarities and differences, and focus on the latter for functional works rather than their overall impressions. 299

Figure 15 reveals that the ordinary observer test dominated nearly every category of work. Given its ubiquity and the dominance of district courts from the Second Circuit, that result is unsurprising. More interesting are areas

293. Id.
296. Root, supra note 45.
297. See, e.g., Beebe, supra note 263, at 572 (looking at “new media” and “traditional two-dimensional nonvirtual print media”); Rogers, supra note 147, at 926 (dividing subject matter into “high-tech subject matter” and “low-tech subject matter”).
299. See supra note 298.
where Figure 15 shows that the ordinary observer test is not dominating—namely computer programs and dramatic works. Both industries, associated with Silicon Valley or Hollywood, are found in the Ninth Circuit’s orbit, and therefore are within the ambit of the extrinsic/intrinsic test.

Figure 15 also shows the abstraction/filtration/comparison test’s prominence in only one category—computer programs. This result is again unsurprising, since as noted in Section II B, the Second Circuit devised the test specifically for computer programs. More interesting is the convergence of all three tests in computer programs—the only type of work where this occurs, and with almost equal frequency. If the Supreme Court is to articulate a uniform test, the software industry would likely benefit the most from the disentanglement of the overlapping formalistic tests.

![Figure 15](image)

**Figure 15 | Type of Work by Substantial Similarity Test (2010–2019)**

Refocusing on plaintiff wins, a seasoned observer of copyright cases would guess that works with rich, expressive content, such as literary and musical works, would receive a greater level of protection than databases, computer programs, or architectural works, which are factual or functional and therefore lie closer to the edge of the unprotectible ideas, scènes à faire,
or the merger doctrine discussed in Section II.B. Surprisingly, the data shows that is not the case.

Figure 16 (below) shows that plaintiffs had a higher percentage of wins in literary and pictorial, graphic, and sculptural works than in the other categories of works. However, a closer look shows that there were many more cases in these two categories of works than other types of works. What is more telling, therefore, is the gap between defendant and plaintiff win rates. As Figure 17 reveals, the win rates in both of those categories are approximately the same as those in computer programs, factual, and architectural works. Plaintiffs fared abysmally with dramatic works and did surprisingly well with cinematographic works.

Figure 16 | Type of Work by Outcome (District Courts) (2010–2019)

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301. See Lim, supra note 145.
Substantial Similarity's Silent Death

Table Comparing Plaintiff Win Rates by Type of Work (2010–2019)

<table>
<thead>
<tr>
<th>Type of Work</th>
<th>1923 – 2011 Plaintiff Win Rate (%)</th>
<th>2010 – 2019 Plaintiff Win Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Literary</td>
<td>20.5</td>
<td>13.6</td>
</tr>
<tr>
<td>Pic., Graph., Sculpt.</td>
<td>52.9</td>
<td>11.5</td>
</tr>
<tr>
<td>Musical</td>
<td>21.4</td>
<td>0.0</td>
</tr>
<tr>
<td>Computer Programs</td>
<td>30.0</td>
<td>12.5</td>
</tr>
<tr>
<td>Factual</td>
<td>39.1</td>
<td>11.8</td>
</tr>
<tr>
<td>Architectural</td>
<td>8.3</td>
<td>11.1</td>
</tr>
</tbody>
</table>

Given the demise of substantial similarity reported in Section IV.A, it follows that odds are generally against plaintiffs. Dramatic works may have proven a particularly difficult arena for plaintiffs because unprotectible content nips at their heels. To protect their work, plaintiffs must show they have “use[d] creativity to transform facts and ideas into an expression that displays the stamp of the author’s originality,” while excluding elements following from a work’s theme rather than from an author’s creativity.

When courts examine similarities in “total concept and feel, theme, characters, plot, sequence, pace, and setting,” they look at the “totality of [the characters’] attributes and traits as well as the extent to which the defendants’ characters capture the ‘total concept and feel’ of figures in [the plaintiff’s work].” This may result in very few works satisfying the substantial similarity tests.

The truth behind the high percentage of plaintiff wins in cinematographic work is less dramatic than it appears at first glance. The dataset reported only fourteen cinematographic cases (out of two hundred and ten district court

302. Lippman, supra note 14, at 522 (observing “concern that case law is sharply skewed in favor of the defendants”).
304. Williams v. Crichton, 84 F.3d 581, 588 (2d Cir. 1996).
The four plaintiff victories in these fourteen cases skews the actual likelihood of a plaintiff win to be higher than the win rate a larger sample size would yield. For that reason, Figure 17 only reports on district court wins, as breaking down the relatively small number of appellate wins (thirty-four) to the eight categories of types of work does not provide a meaningful basis for comparison. Nonetheless, it is worth noting that in 2010, a leading entertainment litigator observed that “[copyright] infringement claims against motion picture studios and television networks, for all intents and purposes, are dead.”

One reason may be an onerously high threshold for proving substantial similarity in screenplays.

As expected, defendants easily trounced plaintiffs with architectural works, computer programs, and factual works. Factual and functional works lie closest to the boundaries of protectable expression, which raise difficulties for plaintiffs. Copyright is “thin,” and plaintiffs may need to show the defendant copied substantially the entire work or bodily appropriation of expression. The fact that most defendant works involve non-rivals combined with copyright’s generally pro-dissemination utilitarian stance may lead to courts leaning in the defendant’s favor in close cases.

The challenge of proving substantial similarity is heightened where the field is crowded or where aesthetic choices may be secondary to consumer demands or functional requirements. In these instances, “the narrow scope of protectable expression necessitates that plaintiffs show something akin to

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306. See Lim, supra note 145.
307. See Lowe, supra note 216, at 32. “Of the 48 copyright infringement cases against studios or networks that resulted in a final judgment within the Second and Ninth Circuits (and the district courts within those circuits) in the last two decades, the studios and networks prevailed in all of them.” Id. (footnote omitted).
308. Nick Gladden, When California Dreamin’ Becomes a Hollywood Nightmare; Copyright Infringement and the Motion Picture Screenplay: Toward an Improved Framework, 10 J. INTELL. PROP. L. 359, 360 (2003) (noting that the “overwhelming percentage” of lawsuits against Hollywood movies failed and that “vulnerable” screenwriters face the “difficult challenge” of proving their script was misappropriated).
309. Attia v. Soc’y of N.Y. Hosp., 201 F.3d 50, 55 (2d Cir. 1999) (“The problem of distinguishing an idea from its expression is particularly acute when the work of ‘authorship’ is of a functional nature . . . .”).
311. See Design Basics, LLC v. Lexington Homes, Inc., 858 F.3d 1093, 1102 (7th Cir. 2017) (“When an architect hews closely to existing convention, the architect’s ‘original contribution’ is slight—his copyright very thin,’ so that only ‘very close copying’ could take whatever truly belongs to the architect.” (quoting Zalewski v. Cicero Builder Dev., Inc., 754 F.3d 95, 107 (2d Cir. 2014))).
'near identity’ between the works in question to prevail.” For instance, copyright in architectural works covers “the overall form as well as the arrangement and composition of spaces and elements in the design” but excludes “individual standard features.” “Efficiency is an important architectural concern[;] [a]ny design elements attributable to building codes, topography, structures that already exist on the construction site, or engineering necessity . . . get no protection.” The merger doctrine therefore excludes design features used by all architects to meet market expectations for homes or commercial buildings. Similarly, scènes-à-faire, such as “[n]eo-classical government buildings, colonial houses, and modern high-rise office buildings are all recognized styles from which architects draw.”

Although the Lippman study noted “a significant jump” in substantial similarity opinions involving computer programs after 1980 and peaking in the early 2000s, computer software cases form an unremarkably small portion of the dataset for this study. The emergence of computer software accounted for the case bump in 1980, a trend also reported in another empirical copyright study involving fair use. Courts treat the programs’ code in computer programs like literary works. In addition, courts also treat computer programs like compilations.

Like architectural works and software, copyright protection in factual works is thin and embraces only “the author’s original expression of particular

314. Zalewski, 754 F.3d at 105.
315. Id.
316. Lippman, supra note 14, at 535–36.
317. Id. at 536.
318. Beebe, supra note 263, at 566.
319. OSTERBERG & OSTERBERG, supra note 24, at § 8:1 (“One may think of a computer program as a combination of two works: a literary work consisting of the program’s code, and an audiovisual work consisting of the pictures and sounds the program generates to the user.”); see Comput. Assocs. Int’l, Inc. v. Altai, Inc., 982 F.2d 693, 706 (applying the abstraction/filtration/comparison test by abstracting a list of the elements the defendant copies, filtering out unprotectable elements, and comparing the elements that are left to determine if the programs are substantially similar).
320. See OSTERBERG & OSTERBERG, supra note 24, at § 8:4 (“The arrangement of unprotectable code modules or commands may be protected as a compilation.”).
facts and theories already in the public domain.” 321 Historical facts and events are not protected.322 Neither are interpretations of historical events, such as theories, plots, or explanatory hypotheses.323 Copyright law only protects the non-fiction author’s selection, coordination, excerpting, modifying, and arrangement of public domain components.324 To be substantially similar, the plaintiff needs to show a higher quantity of copying amounting to “verbatim reproduction or very close paraphrasing.” 325 Thus, any author may write about property law, but no one may write another seventh edition of Property Law: Rules, Policies, and Practices.326

In sum, earlier debates over the impact of the type of work on plaintiff outcomes, including those put forth by the Lippman study, deserve reconsideration. Data from the past decade shows a general homogeneity across all types of work, and a trend favoring defendants. Plaintiffs seeking to improve the odds against them would be better off settling a case or finding a friendlier forum to litigate outside of the United States.

V. REFLECTIONS, RECOMMENDATIONS, AND IMPLICATIONS (BEYOND COPYRIGHT LAW)

This Article’s empirical analysis reveals how standard-less judgments in individual cases are made in practice. Ambiguity makes it difficult for attorneys and judges to advise or rule on infringement.327 Manta ominously warned that “this likely translates into even greater confusion for artists who have to make decisions as to how to craft their works such as not to infringe.” 328 Fact finders must abstract out copyrightable content and compare

323. See Hoehling, 618 F.2d at 974, 978–79.
324. See, e.g., id. at 974 (recognizing that “the scope of copyright in historical accounts is narrow indeed, embracing no more than the author’s original expression of particular facts and theories already in the public domain”).
327. See Manta, supra note 230, at 1338 (“[S]ubstantial similarity can become confusing for even experienced attorneys and judges. . . .”).
328. Id. (“The empirical research casts concerns as to how judges and juries may adjudicate such situations of artistic uncertainty.”).
a diverse variety of works of authorship.\textsuperscript{329} The doctrinal patchwork of rules superimposed over a factually intensive inquiry produces a morass of unclear precedent almost by default.\textsuperscript{330} In theory, protection extends to authors’ expression of their ideas, but not to the ideas themselves.\textsuperscript{331} In practice, protection reaches beyond the literal work to works copied only in part or to works that are substantially similar,\textsuperscript{332} otherwise “a plagiarist would escape by immaterial variations.”\textsuperscript{333}

### A. Reclaiming the Jury Trial

When judges must apply confusing concepts, they may also be less willing to specify what is unprotected in jury instructions. The case for jury trials is not just a case of nostalgia. It is a quest for authenticity and accuracy in adjudication. The right to a trial by jury stretches back to the adoption of the Constitution of the United States itself.\textsuperscript{334} Anti-Federalists believed juries were the best available means to “rein in corrupt or overactive judges.”\textsuperscript{335} As seen in Section III.B, judges deem it appropriate to decide on behalf of the jury when “no reasonable jury” would disagree with them. Professors Harry Kalven and Hans Zeisel’s seminal work for the University of Chicago Jury Project showed juries were superior in adjudicating disputes involving complex societal values.\textsuperscript{336}

Returning the responsibility envisioned by \textit{Arnstein} to the jury has the benefit of correcting the misapplication of the test the court articulated as a matter of procedure.\textsuperscript{337} \textit{Arnstein} allowed for expert evidence to help the jury contextualize the reaction of ordinary lay listeners.\textsuperscript{338} In doing so, the test

\textsuperscript{329} See supra Section IV.D.
\textsuperscript{330} See supra Section II.B.
\textsuperscript{331} 17 U.S.C. § 102(b) (2016). See also Nichols v. Universal Pictures Corp., 45 F.2d 119, 121 (2d Cir. 1930) (“[W]e are rather concerned with the line between expression and what is expressed.”).
\textsuperscript{332} See supra Part II.
\textsuperscript{333} Nichols, 45 F.2d at 121.
\textsuperscript{335} Id. at 38.
\textsuperscript{336} HARRY KALVEN, JR. & HANS ZEISEL, \textit{THE AMERICAN JURY} 3 (1971).
\textsuperscript{337} See \textit{Arnstein} v. Porter, 154 F.2d 464, 472–73 (2d Cir. 1946) (“Whether . . . defendant unlawfully appropriated presents, too, an issue of fact . . . . Surely, then, we have an issue of fact which a jury is peculiarly fitted to determine. Indeed, even if there were to be a trial before a judge, it would be desirable (although not necessary) for him to summon an advisory jury on this question.”).
\textsuperscript{338} Id. at 473 (“The impression made on the refined ears of musical experts or their views as to
Substantial Similarity’s Silent Death

PEPPERDINE LAW REVIEW

compares the defendant’s work to the plaintiff’s creative contribution and measures the work’s commercial harm to the plaintiff. However, it is the public as represented by the jury, rather than the judge, for whom copyright and its fruits exist.

B. Fact-checking Theory

The second takeaway is that empirical research has the virtue of revealing otherwise hidden and potentially malignant features of the copyright system, such as substantial similarity’s silent death and the likely culprits responsible for its death, while exonerating irrelevant factors such as the type of work at issue and allegations of willful infringement.

Evidence-based scholarship also pierces through cogent-sounding theoretical claims that may sound snazzy but have little real-world truth. For instance, Manta argued that decisions involving substantial similarity may be plagued by cognitive bias. Manta argues that since the scope of a copyright work is always decided after defendants copy it, a finding of actual copying tends to hurt the defendant’s case. In theory, “a legal decisionmaker may draw conscious or subconscious conclusions from a determination of copying, which will increase the chance that he or she will make a finding of substantial similarity.” In practice, this Article has shown that factors such as pretrial motions and the lack of rivalry play a far more determinative role in case outcomes. Conversely, empirical data can also validate a theory. Manta argues that

the musical excellence of plaintiff’s or defendant’s works are utterly immaterial on the issue of misappropriation; for the views of such persons are caviar to the general—and plaintiff’s and defendant’s compositions are not caviar.”

339. See id. (“The question, therefore, is whether defendant took from plaintiff’s works so much of what is pleasing to the ears of lay listeners, who comprise the audience for whom such popular music is composed, that defendant wrongfully appropriated something which belongs to the plaintiff.”).

340. See Ginsburg, supra note 264, at 992 (“[T]he U.S. Constitution’s copyright clause . . . makes the public’s interest equal, if not superior, to the author’s.”).

341. See, e.g., Manta, supra note 230, at 1305, 1339 (pointing out the cognitive biases inevitably present in tests like the reasonable man test and other vague legal tests such as substantial similarity in copyright law).

342. Id. at 1340 (“[I]t appears that hindsight bias will result in pro plaintiff effects.”); see, e.g., Shyamkrishna Balganesh, Foreseeability and Copyright Incentives, 122 HARV. L. REV. 1569, 1631 (2009) (“[H]indsight bias is indeed an inevitable consequence of any ex post liability and entitlement delineation process.”).

343. Manta, supra note 230, at 1340.

344. See supra Sections IV.A–C.
the overconfidence effect, “[o]ne of the most robust findings in the literature on individual decision making,” is amplified by ambiguous rules such as those found in substantial similarity. Manta observed that “judges view themselves as good or at least decent decisionmakers in the copyright context and that their ability to view directly the most relevant evidence leaves little room for second-guessing their skill level for making definitive judgments.” Manta’s observation may explain judges’ willingness to accept defendants’ invitations to rule on their pretrial motions while paying lip service to the need for jury input as seen in Section IV.B.

Finally, the convergence of theory and data can reveal new areas demanding more theorization and empirical work. For instance, Manta argued that courts may use the original work as a cognitive anchor, over-focus on similarities, “and gravitate toward a finding of liability, which again favors plaintiffs.” Similarly, she observed that copyright plaintiffs may benefit from an “irrational primacy effect” for simply having presented their case first as in theory it may create a confirmation bias in the mind of the court. Both of these are valuable questions that future empirical studies on substantial similarity can help answer.

C. Cross-fertilization

The final takeaway is that stakeholders must be willing to look at doctrines both within copyright law and beyond to crack the substantial similarity code and respond meaningfully to this report of its silent death. Judging substantial similarity can be daunting because the fact finder must distinguish copyrightable expression from unprotected factual description without the linguistic aids like those found in patent claims. Unlike patent law, which relies on a skilled person in the art, and trademark law, which relies on the perception of consumers, copyright law’s substantial similarity test

347. Manta, supra note 230, at 1345.
348. Manta, supra note 230, at 1341–42.
349. Id. at 1342.
350. See supra Part I.
uses a hybrid standard that draws on both expert and nonexpert observers.\textsuperscript{351}

Professor Rebecca Tushnet observed that “whether copyright owners would increase their output if given rights over certain uses is often resolved by normative decisions about appropriate markets that they \textit{ought} to control, rather than by any evidence that derivative markets affect incentives.”\textsuperscript{352} A good first step is a compelling narrative showing how harm from noncompeting uses can create market foreclosure instead of actual damage that copying causes to the plaintiff’s market.

Here, scholars can help courts and litigants develop substantial similarity jurisprudence using fair use concepts.\textsuperscript{353} Fair use regards kindly defendants who reuse the plaintiff’s work in a transformative manner. An area of copyright that is ripe for the application of fair use is works that courts have already tended to view as “fair,” such as parodies and uses that infuse the original work with new meaning; use of the plaintiff’s work in news reports; use in historical research; and use in comparative advertising.\textsuperscript{354} These classes of works do not compete with the copyrighted work and promote culture and knowledge.\textsuperscript{355}

To some degree, every creator uses preexisting material others created. Copyright law’s utilitarianism means that the law sides with plaintiffs only as far as it is necessary for the advancement of knowledge and learning.\textsuperscript{356} While plagiarists might be condemned, as an anecdotal matter, courts employing both fair use and substantial similarity have been much more forgiving to non-
rivals who use copyrighted work in order to produce their own work the same way. When rivals copy, they may infringe due to improper appropriation. In contrast, non-rivals are more likely to fulfill the constitutional directive and be proper.

The Supreme Court in *Bell Atlantic Corp. v. Twombly* and *Ashcroft v. Iqbal* set out when judges ought to be willing to accept, infer, or presume causality. The touchstone is plausibility. Plaintiffs need to go beyond conclusory allegations of likely harm and focus on marketplace substitution as well as qualitative and quantitative misappropriation, guided by the fair use rubric. As fair use becomes more coherent, so will substantial similarity. As substantial similarity becomes more coherent, so will fair use.

VI. CONCLUSION

Substantial similarity is often a complicated inquiry requiring courts to assess whether the defendant’s work uses enough material from the plaintiff’s work. The debate has divided courts and scholars, principally over the appropriate test to apply to find nonliteral copyright infringement and, relatedly, the impact of variations in forum and type of work on what the test should look like. This Article argues that this debate distracts from a far more significant reality—the demise of substantial similarity, the key reasons for it, and the factors which are irrelevant.

This Article reports that modern plaintiffs face an astonishingly low win rate—low when compared to rates since 1923 and low when compared to those in nonliteral patent infringement. Neither the tests courts apply nor the circuits they reside in adequately account for this finding. Instead, this Article identifies two factors. First, judges and defendants use pretrial motions to ride roughshod over the factual inquiry component of substantial similarity tests reserved for juries. Second, many cases involve non-rival defendants, and like fair use, courts may regard them as promoting rather than stifling copyright’s utilitarian policies, and as a strict liability tort, courts are unswayed even by allegations of willful infringement. Earlier debates over


358. *Iqbal*, 556 U.S. at 679 (“Determining whether a complaint states a plausible claim for relief will . . . be a context-specific task that requires the reviewing court to draw on its judicial experience and common sense.”).

359. See Balganesh, *supra* note 14 at 271.
the impact of the type of work on plaintiff outcomes deserve reconsideration. There is a general homogeneity across all types of work, and a trend favoring defendants.

A better understanding of substantial similarity would serve two immediate purposes. First, the empirical findings give policymakers, courts, and scholars an evidence-based framework to ensure fidelity to copyright policy and to chart its future. The American economy rests at a transcendent and transformative inflection point in its history, and the vitality of the substantial similarity doctrine forms an important part of it. If plaintiffs are hobbling along with emaciated rights, stakeholders should know about it and act accordingly.

Second, these findings help develop a framework to better understand the contours of copyright infringement and other areas of the law. The conclusions in this Article inevitably introduce new questions for future study. The most important question is whether judges—almost exclusively—should continue to judge copyright cases. Defendants appear to benefit significantly from this trend, though whether there may be other nonobvious factors would be worth studying further.

Results from this Article also provide a platform for studies on several other important issues, including how fair use and substantial similarity jurisprudence inform each other; whether and how case outcomes outside the United States on attributes such as the type of work at issue and posture affect case outcomes; whether the Supreme Court should implement a uniform test even if the results of the diverse tests appear similar; whether the Priest-Klein hypothesis influences substantial similarity cases more than other types of cases, and if so, why. As the commentary and cases on substantial similarity informed the key findings in this article, those findings will provide steps to better understanding of where we are in the law, and what we may need to fix. And that is as it should be.
Table of Figures

Figure 1: Circuits and Test Applied (2010–2019)
Figure 2: Tests and Outcomes (District Court) (2010–2019)
Figure 3: Limitations by Outcomes (District Courts) (2010–2019)
Figure 4: Limitations by Outcome (Appellate Courts) (2010–2019)
Figure 5: Outcomes by Circuit (District Courts) (2010–2019)
Figure 6: Outcomes by Circuit (Appellate Courts) (2010–2019)
Figure 7: Posture by Outcome (2010–2019)
Figure 8: Circuit by Posture (2010–2019)
Figure 9: Appellate Outcomes in Doctrine of Equivalents Cases
Figure 10: Appellate Judges (2010–2019)
Figure 11: District Courts (2010–2019)
Figure 12: Second Circuit District Judges (2010–2019)
Figure 13: Relationship between Outcomes and Whether Parties were Rivals
Figure 14: Outcome by Willful Infringement (District Courts) (2010–2019)
Figure 15: Type of Work by Substantial Similarity Test (2010–2019)
Figure 16: Type of Work by Outcome (District Courts) (2010–2019)
Figure 17: Table Comparing Plaintiff Win Rates by Type of Work (2010–2019)

Appendix

Link to dataset, crosstabs etc.: https://bit.ly/ssdataset_may2020