

DISCOVERING *EBAY*'S IMPACT ON COPYRIGHT
INJUNCTIONS THROUGH EMPIRICAL EVIDENCE

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ABSTRACT

This Article reports on new empirical evidence discrediting the widely held view that judges have resisted applying the Supreme Court's teachings in eBay Inc. v. MercExchange, L.L.C. about injunctive relief in copyright cases. That 2006 patent law decision ruled that courts should not automatically issue injunctions upon a finding of infringement; instead, plaintiffs must prove their entitlement to injunctive relief. eBay had a seismic impact on patent litigation and greatly reduced the threat that small infringements could be leveraged into billion-dollar settlements. Yet prior empirical work, at least one major copyright law treatise, and many articles assert that eBay had little or no effect on the neighboring arena of copyright law. They assert that eBay was rarely cited and infrequently applied.

By examining a longer timeline of cases and more carefully distinguishing between default judgments and contested cases, we find substantial evidence that eBay has become profoundly important in copyright injunction cases. The decision's true impact

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becomes apparent by looking at citations to eBay and related cases as well as the language judges have been using to discuss the need to balance hardships to plaintiffs and defendants when considering whether to grant copyright injunctions. We also find evidence suggesting that injunctions have become more difficult to obtain in the aftermath of eBay. Our data suggest that the early impression that eBay had little impact in copyright cases was a product of hysteresis—a time lag between cause and effect—as lower courts initially resisted, but eventually embraced, eBay.

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INTRODUCTION

Everyone is familiar with the concept of hysteresis, even if they do not recognize it by name. Consider the long delay one experiences when waiting to drive through an intersection after a traffic light turns green when one is the sixth car in the queue.¹ Hysteresis, which generally describes a cause-effect time lag, is also an apt term to describe the delay that sometimes occurs between the issuance of certain major judicial decisions and the full acceptance by lower courts of the decisions' implications.

eBay Inc. v. MercExchange, L.L.C., a major U.S. Supreme Court decision from 2006, had a relatively immediate and transformative effect on the grant of permanent injunctions in patent infringement cases.² Prior to *eBay*, courts almost always granted injunctions upon a finding of patent infringement.³ The Court in *eBay* criticized this practice, emphasizing the discretionary nature of injunctive

1. The term "hysteresis" derives from Greek, meaning "to be late, fall short." *Hysteresis*, MERRIAM-WEBSTER, <https://www.merriam-webster.com/dictionary/hysteresis> [<https://perma.cc/Q37L-2KF4>] (last updated Feb. 22, 2023). Hysteresis occurs in a number of different fields. In one context, it usefully describes a relative lag in vehicle speed recovery during an acceleration phase compared to a deceleration phase. *See, e.g.*, Serge Hoogendoorn & Victor Knoop, *Traffic Flow Theory and Modelling*, in *THE TRANSPORT SYSTEM AND TRANSPORT POLICY: AN INTRODUCTION* 125, 143-44 (Bert van Wee et al. eds., 2013). In another context, hysteresis describes the lag between magnetic induction and a magnetizing force. *See Hysteresis, supra*.

2. 547 U.S. 388 (2006); *see, e.g.*, Christopher B. Seaman, *Permanent Injunctions in Patent Litigation After eBay: An Empirical Study*, 101 IOWA L. REV. 1949, 1968-72 (2016) (discussing academic articles and government studies reporting that while an appreciable number of permanent injunctions were still issued in the immediate wake of *eBay*, there was a noticeable shift within certain categories of patent cases); Colleen V. Chien & Mark A. Lemley, *Patent Holdup, the ITC, and the Public Interest*, 98 CORNELL L. REV. 1, 8-10 (2012) (describing the *eBay* decision as a "sea change" in patent injunction decisions). *But see* H. Tomás Gómez-Arostegui & Sean Bottomley, *The Traditional Burdens for Final Injunctions in Patent Cases c.1789 and Some Modern Implications*, 71 CASE W. RESV. L. REV. 403, 409 (2020) (arguing that, consistent with *eBay* and traditional principles of equity, courts can and should issue injunctive relief if the defendant is likely to infringe again and damages would not fully compensate the patentee for the life of the patent).

3. *See, e.g.*, 547 U.S. at 395 (Roberts, C.J., concurring) ("From at least the early 19th century, courts have granted injunctive relief upon a finding of infringement in the vast majority of patent cases.").

remedy.⁴ The Court's decision in *eBay* placed significant evidentiary burdens on plaintiffs to show their entitlement to injunctive relief.⁵

Because *eBay* relied on three of the Court's prior copyright decisions for the proposition that courts may withhold injunctive relief in appropriate cases, it should have been immediately obvious that *eBay*'s holding about the burdens plaintiffs must bear to show their entitlement to injunctive relief applied equally in copyright infringement cases.⁶ Yet an early empirical study on the grant of copyright injunctions by Jiarui Liu in 2012 reported that in the first four years after the *eBay* ruling, courts rarely cited that decision and continued to grant injunctions at a very high rate.⁷ Liu's study was quickly accepted by a leading treatise and scores of commentators as the definitive account of the effect of *eBay* in copyright cases.⁸

One of us had the intuition that even if Liu's findings were accurate about copyright injunctions in the initial post-*eBay* period, courts might have become more attentive to *eBay* over time. This intuition was tested in a qualitative study of eighty-two post-*eBay* copyright infringement cases in which courts decided not to grant injunctions.⁹ That study revealed, among other things, that courts began to pay much more attention to *eBay* after two appellate court decisions in the leading copyright jurisdictions reversed lower courts for failing to follow *eBay*'s directives.¹⁰

The empirical project on which we report in this Article examines whether, as the qualitative study suggested, the impact of *eBay* on copyright law increased over time. We find substantial evidence that it has. Overall, our data support two key intuitions: that courts have

4. *See id.* at 391 (majority opinion).

5. *See id.* (listing the four factors a plaintiff must demonstrate for a permanent injunction to be granted).

6. *See id.* at 392-94.

7. Jiarui Liu, *Copyright Injunctions After eBay: An Empirical Study*, 16 LEWIS & CLARK L. REV. 215, 218 (2012). Liu's study did not present any empirical data about grants of injunctions prior to *eBay*. *See id.*

8. *See infra* note 48 and accompanying text.

9. *See generally* Pamela Samuelson, *Withholding Injunctions in Copyright Cases: Impacts of eBay*, 63 WM. & MARY L. REV. 773 (2022).

10. *See id.* at 813, 823-31. The qualitative study identified some common fact patterns that tended to result in denials of injunctive relief. *Id.* at 848-54. *See also infra* Part IV of this Article for examples.

accorded *eBay* greater weight over time and that courts have been granting fewer injunctions in copyright infringement cases. This Article addresses some important nuances and distinctions between different types of injunction decisions. For example, we compared permanent injunction decisions in contested—by which we mean non-default judgment—cases against injunction decisions in default judgment cases. Hysteresis does seem to account for the initial slow judicial reaction to *eBay*, which contrasts sharply with the seriousness with which courts now routinely treat *eBay* and its progeny in copyright infringement cases.

Part I reviews the *eBay* decision and its most salient progeny that promulgated the standards that courts are supposed to apply when deciding whether to grant or withhold injunctive relief. Part II provides an overview of the methodology we used in selecting and processing data about grants and denials of copyright injunctions from the cases in our sample. Part III reports on our key findings about the increased frequency of citations to *eBay* and its progeny over time and the lower grant rates for injunctions in copyright infringement cases since 2010, both in preliminary and in contested permanent injunction cases. Part IV offers some insights drawn from a qualitative study about the types of post-*eBay* cases in which courts have withheld injunctions in copyright infringement cases.

I. *EBAY*, *WINTER*, AND THE HYSTERESIS HYPOTHESIS

Prior to the Supreme Court's landmark 2006 decision, *eBay Inc. v. MercExchange, L.L.C.*,¹¹ courts routinely issued injunctions in both patent and copyright cases upon a finding of actual or likely infringement of plaintiffs' rights.¹² Such a finding typically triggered a presumption of irreparable harm, which was rarely rebutted.¹³

11. 547 U.S. 388 (2006).

12. *See, e.g.*, Seaman, *supra* note 2, at 1961-62 (reporting that pre-*eBay*, courts granted permanent injunctions to prevailing patentees in nearly all cases); *cf.* Mark A. Lemley & Eugene Volokh, *Freedom of Speech and Injunctions in Intellectual Property Cases*, 48 DUKE L.J. 147, 150, 170 n.107 (1998) (noting that courts routinely granted injunctions, both preliminary and permanent, to copyright plaintiffs). *But see* Seaman, *supra* note 2, at 1976 n.175 (noting relatively lower rate of preliminary injunctions granted).

13. *See, e.g.*, Seaman, *supra* note 2, at 1992 (discussing the presumption of irreparable harm in patent cases); Lemley & Volokh, *supra* note 12, at 159-60 (discussing the presumption of irreparable harm in copyright cases).

Actual or likely infringement, coupled with this presumption, generally sufficed to justify the grant of permanent or preliminary injunctions.¹⁴ Some cases went so far as to say that plaintiffs were “entitled” to injunctive relief when their rights had been infringed or were likely infringed.¹⁵ The Supreme Court’s *eBay* decision represented a stark departure from what had become the standard practice of issuing injunctions upon a finding of actual or likely infringement.¹⁶ Two years later, the Court’s decision in *Winter v. Natural Resources Defense Council, Inc.* reaffirmed the discretionary and equitable nature of injunctive relief and the burdens that plaintiffs must bear to qualify for this remedy.¹⁷

Although courts were initially slow to recognize the implications of *eBay* in copyright cases, this changed after *Winter* and key decisions by the Second and Ninth Circuits in 2010 and 2011, which reversed lower court grants of preliminary injunctions because those courts failed to require plaintiffs to present evidence to show their entitlement to injunctive relief, as the Court in *eBay* directed.

A. *eBay and Winter Revitalized Standards for Issuance of Injunctive Relief*

In 2001, MercExchange sued eBay for infringing a patent covering the “buy it now” system for facilitating electronic marketplace sales of goods between private individuals through a central

14. See, e.g., 4 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 14.06[A][2][a], [B][1][a] (Matthew Bender, rev. ed. 2022), LexisNexis.

15. See, e.g., *Olan Mills, Inc. v. Linn Photo Co.*, 23 F.3d 1345, 1349 (8th Cir. 1994); *Walt Disney Co. v. Powell*, 897 F.2d 565, 567 (D.C. Cir. 1990); *Apple Comput., Inc. v. Franklin Comput. Corp.*, 714 F.2d 1240, 1254 (3d Cir. 1983). The *eBay* decision rejected the idea that violating an exclusive right entitles the right holder to an exclusionary remedy, saying that the statutory right to exclude was “distinct” from whether the plaintiff had a “right” to an injunctive remedy. 547 U.S. at 392. Under this view, violation of an exclusive intellectual property (IP) right does not, by itself, cause irreparable harm. For a discussion of differing conceptions of exclusive rights as they bear on the availability of injunctive relief, see, for example, Shyamkrishna Balganesh, *Demystifying the Right to Exclude: Of Property, Inviolability, and Automatic Injunctions*, 31 HARV. J.L. & PUB. POL’Y 593, 598-99, 601-06 (2008).

16. See Samuelson, *supra* note 9, at 781 n.21.

17. 555 U.S. 7, 20 (2008) (reversing grant of preliminary injunction in environmental protection case).

authority that could secure the transactions.¹⁸ Although a jury found the patent valid and infringed, the trial judge declined to issue an injunction on the theory that money damages would adequately compensate MercExchange, an entity whose business model consisted of licensing patents in its portfolio.¹⁹ The Court of Appeals for the Federal Circuit reversed, citing its general rule that courts should issue injunctions upon a finding of patent infringement, absent exceptional circumstances for which eBay did not qualify.²⁰ Enjoining infringement of this patent would have shut down eBay's popular service.²¹

The Supreme Court vacated the Federal Circuit's injunction ruling in *eBay*, holding that the grant of injunctive relief is always subject to equitable discretion.²² The Court relied upon two of its previous non-intellectual property (IP) decisions in support of this proposition and observed that "[t]hese familiar principles apply with equal force to disputes arising under the Patent Act."²³ The *eBay* decision also relied upon three of the Court's prior copyright decisions recognizing that injunctions need not always issue upon a finding of infringement.²⁴ The Court further noted that the patent

18. See *eBay*, 547 U.S. at 390. The patent at issue was U.S. Patent No. 5,845,265.

19. See *MercExchange, L.L.C. v. eBay, Inc.*, 275 F. Supp. 2d 695, 698-99 (E.D. Va. 2003), *aff'd in part, rev'd in part*, 401 F.3d 1323 (Fed. Cir. 2005), *vacated*, 547 U.S. 388 (2006).

20. See *MercExchange, L.L.C. v. eBay, Inc.*, 401 F.3d 1323, 1338 (Fed. Cir. 2005), *vacated*, 547 U.S. 388 (2006).

21. Numerous amicus curiae briefs urged the Court to overrule the Federal Circuit's categorical rule in favor of injunctions in patent infringement cases. The briefs expressed concern that the automatic grant of injunctions gave nonpracticing entities, such as MercExchange, undue leverage in negotiating settlements that would enable infringing firms to stay in business. See, e.g., Brief Amici Curiae of 52 Intellectual Property Professors in Support of Petitioners at 5-6, *eBay*, 547 U.S. 388 (No. 05-130), 2006 WL 1785363, at *5-6; Brief of Amicus Curiae Yahoo! Inc. in Support of Petitioner at 6-7, *eBay*, 547 U.S. 388 (No. 05-130), 2006 WL 218988, at *6-7. Justice Kennedy found this argument compelling. See *eBay*, 547 U.S. at 396 (Kennedy, J., concurring) (citing FED. TRADE COMM'N, TO PROMOTE INNOVATION: THE PROPER BALANCE OF COMPETITION AND PATENT LAW AND POLICY 38-39 (2003)).

22. 547 U.S. at 391 (majority opinion).

23. *Id.* (first citing *Weinberger v. Romero-Barcelo*, 456 U.S. 305, 311-13 (1982) (concluding that Congress did not intend to limit the exercise of equitable discretion in granting injunctions when enacting water pollution laws); and then citing *Amoco Prod. Co. v. Village of Gambell*, 480 U.S. 531, 541-44 (1987) (holding that it was error to presume irreparable harm in an environmental protection case and discussing equitable considerations that should inform the exercise of discretion in deciding whether to issue preliminary injunctions)).

24. See *id.* at 392-93 (first citing *N.Y. Times Co. v. Tasini*, 533 U.S. 483, 505 (2001) (citing *Campbell v. Acuff-Rose Music, Inc.*, 510 U.S. 569, 578 n.10 (1994)); and then citing *Dun v.*

statute, like the copyright statute, provides that courts “may” issue injunctions, not that they must.²⁵

The *eBay* decision directed courts not to issue permanent injunctions unless the plaintiff had proven:

- (1) that it has suffered an irreparable injury; (2) that remedies available at law, such as monetary damages, are inadequate to compensate for that injury; (3) that, considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted; and (4) that the public interest would not be disserved by a permanent injunction.²⁶

The *eBay* decision thus upended the Federal Circuit’s “general rule” that injunctive relief should automatically follow from a finding of patent infringement.²⁷ The implications of this ruling for the high-stakes field of patent litigation were clear as soon as the decision was announced.²⁸ No longer would prevailing patent owners obtain injunctive relief as of right, giving them the power to leverage billion-dollar settlements from defendants who may never have

Lumbermen’s Credit Ass’n, 209 U.S. 20, 23-24 (1908)); *see also* Samuelson, *supra* note 9, at 783-86, 799-811 (discussing these cases).

25. *eBay*, 547 U.S. at 392 (first citing 35 U.S.C. § 283; and then citing 17 U.S.C. § 502(a)).

26. *Id.* at 391. Although *eBay* directed courts to consider whether the plaintiff “has suffered” an irreparable injury, the Court subsequently clarified in *Winter* that the focus should be on whether the plaintiff “is likely to suffer” irreparable harm in the absence of an injunction. *See Winter v. Nat. Res. Def. Council, Inc.*, 555 U.S. 7, 20 (2008). Remedies scholar Douglas Laycock has criticized *eBay*’s four-factor test for the issuance of permanent injunctions as having been adapted from a common test for preliminary injunctive relief, saying that this test “make[s] no sense as applied to permanent injunctions.” DOUGLAS LAYCOCK, MODERN AMERICAN REMEDIES: CASES AND MATERIALS 426 (4th ed. 2010).

27. *See* 547 U.S. at 393-94. The Court also rejected the district court’s “categorical rule” against issuing injunctive relief against nonpracticing entities whose business consists of licensing patents. *Id.* at 393. Yet Christopher Seaman’s research shows that after *eBay*, courts rarely grant injunctive relief to nonpracticing entities. *See* Seaman, *supra* note 2, at 1987-89.

28. *See, e.g.*, Thomas L. Casagrande, *The Reach of eBay Inc. v. MercExchange, L.L.C.: Not Just for Trolls and Patents*, HOUS. LAW., Nov.-Dec. 2006, at 10, [https://www.edegan.com/pdfs/Casagrande%20\(2006\)%20-%20The%20Reach%20of%20eBay%20Inc%20v%20MercExchange%20LLC.pdf](https://www.edegan.com/pdfs/Casagrande%20(2006)%20-%20The%20Reach%20of%20eBay%20Inc%20v%20MercExchange%20LLC.pdf) [<https://perma.cc/8745-5VHP>]; Dennis Crouch, *Supreme Court Vacates eBay Injunction*, PATENTLY-O (May 16, 2006), https://patentlyo.com/patent/2006/05/supreme_court_v.html [<https://perma.cc/J577-GB2F>]; Mitchell G. Stockwell, *Implementing eBay: New Problems in Guiding Judicial Discretion and Enforcing Patent Rights*, 88 J. PAT. & TRADEMARK OFF. SOC’Y 747 (2006).

even heard of their technology.²⁹ Empirical studies have demonstrated that in response to *eBay*, courts now deny permanent injunctions in just over a quarter of patent cases, whereas prior to *eBay*, the denial of permanent injunctive relief in patent infringement cases was almost unheard of.³⁰

Although *eBay* was a patent infringement case, there was every reason to expect it to have far-reaching implications for other IP laws, especially copyright.³¹ The Supreme Court's instruction in *eBay* that patent injunctions must no longer follow reflexively from a finding of infringement had obvious relevance for copyright law for three reasons. First, the Court relied on three of its copyright precedents for the proposition that injunctions need not always issue in IP cases.³² Second, to the extent that the Court's decision was

29. See, e.g., *NTP, Inc. v. Rsch. in Motion, Ltd.*, 397 F. Supp. 2d 785, 788-89 (E.D. Va. 2005) (denying RIM's motion to stay proceedings pending United States Patent and Trademark Office (USPTO) reexamination of NTP's patents); Roger Parloff, *Fortune*, *BlackBerry Held Hostage*, CNN MONEY (Nov. 29, 2005, 12:07 PM), https://money.cnn.com/2005/11/28/technology/blackberry_fortune_121205/ [<https://perma.cc/7TZZ-A9NZ>] (reporting on *NTP* case). The parties eventually settled for \$612 million, which was less than the \$1 billion that NTP had previously demanded. See Rob Kelley, *BlackBerry Maker, NTP Ink \$612 Million Settlement*, CNN MONEY (Mar. 3, 2006, 7:29 PM), https://money.cnn.com/2006/03/03/technology/rimm_ntp/ [<https://perma.cc/QCC9-984J>].

30. See, e.g., Seaman, *supra* note 2, at 1982-83.

31. For representative literature on the effect of *eBay* in other fields of IP law, see Mark A. Lemley, *Did eBay Irreparably Injure Trademark Law?*, 92 NOTRE DAME L. REV. 1795, 1796 (2017) (finding an effect in trademark litigation); Elizabeth A. Rowe, *eBay, Permanent Injunctions, and Trade Secrets*, 77 WASH. & LEE L. REV. 553, 556-57 (2020) (finding a lesser impact in trade secret cases). Congress has amended the federal trademark statute to authorize a rebuttable presumption of irreparable harm in trademark infringement cases. See Trademark Modernization Act of 2020, Pub. L. No. 116-260, § 226, 134 Stat. 1182, 2200-10 (codified at 15 U.S.C. § 1116 note) (amending Trademark Act of 1946, ch. 540, tit. VI, § 34, 60 Stat. 427, 439 (codified as amended in scattered sections of 15 U.S.C.)). But note that even so, the Third Circuit characterizes the Trademark Modernization Act (TMA), read in conjunction with Federal Rule of Evidence 301, as imposing only a "light burden of production" on the defendant. See *Nichino Am., Inc. v. Valent U.S.A. LLC*, 44 F.4th 180, 186-87 (3d Cir. 2022). The court upheld the district court's denial of a trademark injunction despite finding a likelihood of confusion. *Id.* The court held that the defendant's burden to rebut the presumption of irreparable harm was satisfied by the production of evidence of a sophisticated consumer class. *Id.* For a discussion of the impact of *eBay* beyond IP cases, see Mark P. Gergen, John M. Golden & Henry E. Smith, *The Supreme Court's Accidental Revolution? The Test for Permanent Injunctions*, 112 COLUM. L. REV. 203, 214-16 (2012). See generally DAN B. DOBBS & CAPRICE L. ROBERTS, *LAW OF REMEDIES: DAMAGES—EQUITY—RESTITUTION* § 2.11(2) (3d ed. 2017).

32. *eBay*, 547 U.S. at 392-93 (first citing *N.Y. Times Co. v. Tasini*, 533 U.S. 483, 505 (2001) (citing *Campbell v. Acuff-Rose Music, Inc.*, 510 U.S. 569, 578 n.10 (1994)); and then citing *Dun*

grounded in the text of the Patent Act, the relevant text of the Copyright Act was identical.³³ Third, prior to *eBay*, courts in copyright infringement cases tended to apply a hard presumption that injunctions should virtually always issue upon a finding of actual or likely infringement.³⁴ This presumption was tantamount to the Federal Circuit's "categorical rule" that the Supreme Court rejected.³⁵ Yet, some courts initially expressed skepticism that *eBay* had any relevance in copyright infringement cases.³⁶ According to two early studies, *eBay* had minimal impacts on the availability of injunctions in copyright infringement cases.³⁷

Two years after *eBay*, the Supreme Court's decision in *Winter* reinforced the *eBay* ruling about the high burdens of proof that plaintiffs must bear to qualify for injunctive relief.³⁸ The *Winter* decision reaffirmed the discretionary nature of injunctive relief articulated in *eBay*, this time focused on the proper standard for granting or denying preliminary injunctions.³⁹ *Winter* went so far as

v. Lumbermen's Credit Ass'n, 209 U.S. 20, 23-24 (1908)).

33. *See id.* at 392 (first citing 35 U.S.C. § 283; and then citing 17 U.S.C. § 502(a)). Both statutes state that courts "may" grant injunctions. 35 U.S.C. § 283; 17 U.S.C. § 502(a).

34. *See, e.g.*, 4 NIMMER & NIMMER, *supra* note 14, § 14.06[A], [B].

35. Prior to *eBay*, lower courts rarely heeded the Supreme Court's statement in *Campbell v. Acuff-Rose Music, Inc.* that injunctive relief may not always be appropriate. *See* 510 U.S. 569, 578 n.10 (1994); Samuelson, *supra* note 9, at 798-816.

36. *See, e.g.*, *Lennon v. Premise Media Corp.*, 556 F. Supp. 2d 310, 319 n.1 (S.D.N.Y. 2008) (declining to apply *eBay* in a preliminary injunction ruling); *Salinger v. Colting*, 641 F. Supp. 2d 250, 268-69 n.6 (S.D.N.Y. 2009), *vacated*, 607 F.3d 68 (2d Cir. 2010). The court in *Lennon* denied the requested preliminary injunction because Premise was likely to succeed with its fair use defense. 556 F. Supp. 2d at 328. In *Salinger*, the Second Circuit reversed the lower court's grant of a preliminary injunction for declining to apply *eBay* in the absence of circuit precedent ordering it to do so. *Salinger v. Colting*, 607 F.3d 68, 74-75, 84 (2d Cir. 2010). The early cases skeptical of *eBay*'s implications for copyright cases did not refer to Justice Roberts's concurring opinion in *eBay* that would defer to the longstanding practice of issuing injunctions when IP rights had been infringed. Nor were those decisions influenced by sharp criticisms of the *eBay* four-factor test by private law and remedies scholars. *See, e.g.*, Gergen et al., *supra* note 31.

37. *See* Liu, *supra* note 7, at 218; Jake Phillips, Note, *eBay's Effect on Copyright Injunctions: When Property Rules Give Way to Liability Rules*, 24 BERKELEY TECH. L.J. 405, 420 (2009).

38. *Winter v. Nat. Res. Def. Council, Inc.*, 555 U.S. 7 (2008). Environmental law scholars have expressed concerns about decisions such as *eBay* and *Winter* insofar as they have made enforcement of environmental laws more difficult. *See, e.g.*, Craig N. Johnston, *Ensuring Compliance: Equitable Relief in the Face of Violations of Substantive Environmental Standards*, 49 ENV'T L. 793, 794, 802-03 (2019).

39. *Winter*, 555 U.S. at 20.

to characterize injunctive relief as “an extraordinary remedy never awarded as of right.”⁴⁰ The Court reversed a lower court’s grant of a preliminary injunction against the Navy’s sonar testing program notwithstanding its finding of a strong likelihood of success on the merits of Natural Resource Defense Council (NRDC)’s claim that the testing violated U.S. environmental laws.⁴¹

Winter held that to qualify for a preliminary injunction, plaintiffs must show: (1) a likelihood of success on the merits, (2) a likelihood of irreparable harm in the absence of an injunction, (3) a balance of hardships that tips in its favor, and (4) no disservice to the public interest if an injunction issues.⁴² Even when a court has found a strong likelihood of success on the merits, the Court thought that an injunction should not issue unless the plaintiff had shown a likelihood of irreparable harm, not just a mere possibility of such harm.⁴³ Moreover, even if success on the merits and irreparable harm were likely, said the Court, these considerations might be overridden by the balancing and public interest factors.⁴⁴

Notwithstanding *Winter*’s reinforcement of *eBay*, Jiarui Liu’s empirical study of the first four years of copyright infringement decisions after *eBay* claimed that the courts had largely ignored *eBay*.⁴⁵ Liu asserted that only 11% of reported copyright injunction decisions had cited *eBay* at all, and the few that did generally applied its factors “in a very cursory and mechanical way.”⁴⁶ The Liu study also reported that courts continued to grant permanent

40. *Id.* at 24.

41. *Id.* at 21-22.

42. *See id.* at 20. The *Winter* standard differed from *eBay* in two respects. First, it focused on the prospect of irreparable harm in the future unless an injunction issued, whereas *eBay* spoke of the need for the plaintiff to show it had suffered irreparable harm. Second, *Winter* did not treat inadequacy of legal remedies as a separate factor from irreparable injury. Both of these changes make *Winter* more compatible with traditional equitable principles.

43. *See id.* at 21-22.

44. *See id.* at 24. The Court chastised the lower courts for failing to consider the balance and public interest factors, which the Court thought tipped in favor of the Navy. *Id.* at 26-28.

45. Liu, *supra* note 7, at 218; *see also* Phillips, *supra* note 37, at 435 (concluding that while *eBay*’s long-term impact was still indeterminate, it might “be almost as insignificant as prior Supreme Court admonitions”).

46. Liu, *supra* note 7, at 218, 228. Our empirical study shows, contrary to Liu’s report of a mere 11% citation rate, courts cited *eBay* in 25% of all injunction decisions in the immediate aftermath of *eBay*, 30% if one excludes default judgment cases, and 46% if one focuses on contested permanent injunction decisions. *See infra* Tables 1, 2, and 4.

injunctions at high rates, *eBay* notwithstanding.⁴⁷ The Liu study has influenced the understanding of many law review commentators and a highly influential treatise about the availability of injunctive relief in copyright cases and about *eBay*'s influence in copyright infringement cases.⁴⁸ The empirical study, on which we report here, was designed to assess whether *eBay* had become more influential over time. Our findings should cause those who have relied on the Liu study's main conclusions to reconsider their views.⁴⁹

B. Hysteresis and the Delayed Effects of eBay

Some groundbreaking developments have an immediate impact on lower court decision-making. An example is the *eBay* decision's

47. Liu, *supra* note 7, at 228-32.

48. See, e.g., PAUL GOLDSTEIN, GOLDSTEIN ON COPYRIGHT § 13.1.2.2 (3d ed. 2022). We found more than forty commentaries that cited Liu for his conclusion that *eBay* had little effect on the availability of injunctive relief in copyright cases. See, e.g., *id.* (citing the Liu article at length). For very recent articles citing the Liu study, see, for example, Alfred C. Yen, *Rethinking Copyright's Relationship to the First Amendment*, 100 B.U.L. REV. 1215, 1225 n.64 (2020) (citing Liu as "showing that plaintiffs establishing copyright infringement get injunctive relief over ninety percent of [the] time"); Amy Adler & Jeanne C. Fromer, *Taking Intellectual Property into Their Own Hands*, 107 CALIF. L. REV. 1455, 1500 (2019) ("That said, [successful copyright and trademark plaintiffs] generally do [get injunctive relief], and one empirical study after the Supreme Court's 2006 decision found that courts almost never withhold injunctive relief from successful copyright plaintiffs." (referring to the Liu study)).

49. We regret we do not have more positive things to say about Liu's study, for we acknowledge a great deal of effort went into the data collection and analysis. Nonetheless, for the reasons that follow, we submit that none of Liu's empirical conclusions can be taken at face value. To begin with, despite repeated requests over several years, Liu did not make his data available for replication. Our independent efforts to reproduce Liu's data yielded substantially different results. See, e.g., *supra* note 46 (summarizing disparities with respect to citation rates).

Even if Liu's underlying data were sound, his treatment of them was not. Liu's sample of post-*eBay* decisions included 282 default judgment decisions which constituted 55.7% of his sample of all cases and 68.3% of his sample of permanent injunction decisions. See Liu, *supra* note 7, at 228, 236-37. By not clearly differentiating between contested cases and default judgment cases, Liu reported his results in a way that underestimated how often *eBay* was cited and overestimated how often courts issued injunctions in contested cases. This would be apparent to readers who combed through Liu's footnotes and tables, but the results reported in the main text would lead many readers to believe that the claim that *eBay* was cited in only 11% of the cases applied to contested injunction cases. In fact, looking at certain of his tables and footnotes, it is apparent that Liu's figure for injunction cases excluding default judgments was actually 20%. See *id.* at 228, 236 n.98. Furthermore, Liu's approach to isolating the factors within cases that "actually drove the courts to grant or deny a motion for injunction relief" is fundamentally unsound. See *infra* note 192.

impact on courts' willingness to withhold injunctive relief in patent infringement cases.⁵⁰ Yet, there is sometimes a lag before courts accept the full impact of a major ruling.⁵¹ We posit that in the absence of an express directive from the Court that the *eBay* four-factor test applied to the discretionary grants of injunctions in all IP cases, lower courts would have had to decide for themselves the relevance (if any) of *eBay* in copyright cases.⁵²

In most circuits, district courts could be expected to resist defense arguments to apply the *eBay* factors because of appellate precedents directing them to presume irreparable harm upon a showing of actual or likely infringement and giving little or no attention to the balancing of harms and public interest factors.⁵³ To break free of those precedents, trial court judges would need to be convinced that local circuit law had been effectively overruled by *eBay*; or, in the alternative, they would need a clear signal from their relevant circuit court of appeal to that effect. Furthermore, under rigid applications of the "law of the circuit" doctrine,⁵⁴ some circuit courts of appeal would have been reluctant to provide that clear signal and

50. See *supra* note 2.

51. While we are not claiming that hysteresis in judicial responses to higher court decisions is a common phenomenon, we think it quite possible that hysteresis may arise in other legal contexts. See *infra* Conclusion.

52. See, e.g., *Salinger v. Colting*, 641 F. Supp. 2d 250, 268-69 n.6 (S.D.N.Y. 2009) ("Although Defendants contend that *eBay, Inc. v. MercExchange*, 547 U.S. 388, 126 S. Ct. 1837, 164 L. Ed. 2d 641 (2006), undermines the validity of th[e] presumption [of irreparable harm], that case dealt only with the presumption of irreparable harm in the patent law context, and thus is not controlling in the absence of Second Circuit precedent applying it in the copyright context."), *vacated*, 607 F.3d 68 (2d Cir. 2010). Not only would lower courts have to decide whether to apply *eBay*, they would also need to discern *how* to apply *eBay*. See, e.g., Seaman, *supra* note 2, at 1968 n.128 (listing studies and articles critiquing *eBay*'s lack of clarity).

53. Prior to *eBay*, courts in all circuits except the Fifth presumed irreparable injury once plaintiffs showed likely or actual success on the merits. See WILLIAM F. PATRY, PATRY ON COPYRIGHT § 22:44 (2022). Indeed, courts commonly presumed irreparable harm once plaintiffs presented a prima facie case of infringement. See 4 NIMMER & NIMMER, *supra* note 14, § 14.06[A][2][b].

54. See, e.g., Joseph W. Mead, *Stare Decisis in the Inferior Courts of the United States*, 12 NEV. L.J. 787, 794-95 (2012) (explaining that under the law-of-the-circuit doctrine "a subsequent panel is bound by the holding of a previously published decision in that circuit"); see also Amy Coney Barrett, *Stare Decisis and Due Process*, 74 U. COLO. L. REV. 1011, 1018 (2003) (collecting cases reflecting the rule that "[a] panel possesses the authority to overrule precedent only when there has been an intervening, contrary decision by the Supreme Court or by the relevant court of appeals sitting en banc").

overrule prior circuit authority without a direct instruction from the Supreme Court itself.⁵⁵

In sum, because of the doctrinal conservatism of lower courts and the parochial nature of appellate court precedents, it is unsurprising that there might have been some delay in the adoption of even the most obvious implications of new Supreme Court precedents such as *eBay* for injunction grants in copyright cases.

The turning points in respect of the impacts of *eBay* on the availability of injunctive relief in copyright infringement cases, we believe, were a pair of appellate court decisions in the Second and Ninth Circuits in 2010 and 2011, long considered the leading copyright jurisdictions in the United States. In both *Salinger v. Colting* and *Flexible Lifeline Systems, Inc. v. Precision Lift, Inc.*, appellate courts reversed lower court preliminary injunction grants for failing to comply with *eBay*'s directives and for presuming irreparable harm instead of requiring plaintiffs to prove it.⁵⁶ These decisions also acknowledged the significance of *Winter*.⁵⁷

Invoking both *eBay* and *Winter*, the Second Circuit in *Salinger* reversed a lower court's grant of a preliminary injunction to stop publication of Colting's novel which imagined the life of Holden Caulfield, a character from Salinger's novel *Catcher in the Rye*, as an old man.⁵⁸ While not disagreeing with the lower court's assessment that Salinger was likely to prevail on the merits of his infringement claim, the Second Circuit recognized that *eBay* and *Winter* directed courts to consider all four factors before granting

55. The threshold for breaking with a prior circuit precedent varies substantially among circuits. As Joseph W. Mead explains,

Most circuits allow a later panel to overturn an earlier decision if it was rejected by an intervening decision of a higher authority. Some circuits even extend this power to situations where other developments in the law, "although not directly controlling, offer[] a sound reason for believing that the former panel, in light of fresh developments, would change its collective mind."

Mead, *supra* note 54, at 797 (footnote omitted) (quoting *San Juan Cable LLC v. P.R. Tel. Co.*, 612 F.3d 25, 33 (1st Cir. 2010)).

56. *Salinger v. Colting*, 607 F.3d 68 (2d Cir. 2010); *Flexible Lifeline Sys., Inc. v. Precision Lift, Inc.*, 654 F.3d 989 (9th Cir. 2011) (per curiam). The Liu study acknowledged that the *Salinger* decision's directive to apply the *eBay* factors in copyright infringement cases might affect grant rates in future years. Liu, *supra* note 7, at 232.

57. *Salinger*, 607 F.3d at 78-79; *Flexible*, 654 F.3d at 996-97.

58. *Salinger*, 607 F.3d at 70-72, 84.

an injunction.⁵⁹ The *Salinger* opinion held that it was inconsistent with those decisions for courts to presume irreparable harm upon finding success on the merits was likely.⁶⁰ *eBay* and *Winter*, the court held, clearly required plaintiffs to prove such harm.⁶¹

The Ninth Circuit followed suit in *Flexible*, reversing a lower court's grant of a preliminary injunction forbidding Precision from using Flexible's copyrighted technical drawings for aircraft and vehicle maintenance.⁶² The trial court ruled that Flexible had established a likelihood of success on the merits, which triggered a presumption of irreparable harm.⁶³ As in *Salinger*, the Ninth Circuit in *Flexible* directed the lower court to consider the plaintiff's evidence on all four factors and to require the plaintiff to prove it would suffer irreparable harm unless an injunction issued.⁶⁴

Other appellate courts have joined the *Salinger* and *Flexible* bandwagon endorsing the *eBay* four-factor test when courts consider motions for injunctive relief.⁶⁵ At this point, only the Sixth Circuit continues to presume irreparable harm in copyright infringement cases, and it candidly admits that this presumption is "on its last legs."⁶⁶

Further reinforcing our view that *Salinger* and *Flexible* represent turning points in the copyright infringement injunction case law are the data on which we report in Part III showing that starting in

59. *Id.* at 83-84.

60. *Id.* at 79-80, 82.

61. *Id.*

62. 654 F.3d at 1000-01. Shortly before the *Flexible* decision, another Ninth Circuit panel in *Perfect 10, Inc. v. Google, Inc.* recognized that *eBay* had effectively overruled precedents that had presumed irreparable harm upon a showing of actual or likely infringement. 653 F.3d 976, 981 (9th Cir. 2011). We discuss *Flexible* because it is the more frequently cited Ninth Circuit precedent on the post-*eBay* injunction standard.

63. *Flexible*, 654 F.3d at 993.

64. *See id.* at 1000.

65. *See, e.g.*, *TD Bank N.A. v. Hill*, 928 F.3d 259, 279-80 (3d Cir. 2019) (reversing grant of permanent injunction after due consideration of the four *eBay* factors); *Flava Works, Inc. v. Gunter*, 689 F.3d 754, 755 (7th Cir. 2012) (reversing preliminary injunction for failure to comply with *eBay*'s directives). The First, Fourth, and Eleventh Circuits had applied the four *eBay* factors in cases decided in 2007 and 2008. *See CoxCom, Inc. v. Chaffee*, 536 F.3d 101, 111-12 (1st Cir. 2008); *Christopher Phelps & Assocs., LLC v. Galloway*, 492 F.3d 532, 543 (4th Cir. 2007); *Peter Letterese & Assocs., Inc. v. World Inst. of Scientology Enters., Int'l*, 533 F.3d 1287, 1323 (11th Cir. 2008).

66. *See Enchant Christmas Light Maze & Mkt. Ltd. v. Glowco, LLC*, 958 F.3d 532, 539-40 n.3 (6th Cir. 2020).

2011, courts were much more likely to cite to *eBay* and much less likely to issue injunctions.⁶⁷ Citations to *Salinger* and to *Flexible* in our sample's decisions have become increasingly common as well.⁶⁸

In a separate article, *Withholding Injunctions in Copyright Cases*, one of us recently conducted a qualitative review of copyright injunction decisions before and after *eBay* and surmised that in the post-*eBay* period, courts have more frequently withheld injunctive relief in copyright cases, particularly after the appellate court decisions in *Salinger* and *Flexible*.⁶⁹ That research strongly suggested that claims that *eBay* had a minimal impact in copyright cases were either wrong or outdated.⁷⁰

Even before we began this empirical project, the *Withholding Injunctions in Copyright Cases* article identified scores of copyright cases in which the *eBay* framework had been applied and the plaintiff's request for an injunction denied.⁷¹ Our goal was to determine whether those cases were simply interesting outliers or representative of a broader trend in the copyright case law.

C. Selection Effects

A fundamental question addressed in this Article concerns how judges have reacted to a Supreme Court precedent that seemingly changed how lower courts should understand the law on a key issue: Was *eBay* significant in copyright injunction cases, or was it not? If *eBay* had a significant effect, was it immediate, or delayed? We recognize that any study that focuses on litigated cases must acknowledge that judges are not the only ones who react to changes in the law.

As George Priest and Benjamin Klein famously explained, observations about outcomes in the relatively few cases that go to trial and are pursued all the way to judgment may not tell us very much

67. Between 2011 and 2019, courts cited to *eBay* in roughly 50% of reported copyright injunction decisions. See *infra* Table A-1 in the Appendix and Part III.B (discussing grant rates).

68. See *infra* Part III.A (discussing citation trends).

69. Samuelson, *supra* note 9, at 848-54.

70. See *generally id.*

71. See *generally id.*

at all about the broader universe of disputes.⁷² The time-consuming and costly process of litigation does not generate a random sample of all potential disputes; rather, litigation acts as a filter, selecting only those cases in which uncertainty, asymmetric stakes, divergent expectations, or other quirks of human behavior prevent the parties from settling their dispute.⁷³

The results reported in this Article must be understood in this context. All things being equal, the selection effect should make it harder for us to show that *eBay* had any effect at all. In theory, as the injunction standard became more favorable to defendants, plaintiffs would be more likely to shy away from their less justifiable demands for injunctive relief. Priest and Klein posit that this selection effect could leave the equilibrium win rate unchanged, even if the law changed dramatically.⁷⁴ Having intoned the economist's credo of "ceteris paribus"⁷⁵ earlier in this paragraph, we should note in fairness that we cannot be sure that it applies. Other factors outside our understanding may have impacted the selection of disputes for litigation during the period of our study. Moreover, the mechanics of the selection process itself may have changed. Either way, we acknowledge that the results of every empirical study of litigated cases are subject to the problem of selection effects. We leave it to the reader to decide whether, in this case, the game is worth the candle.

Some purists take the issue of selection effects so seriously that they would advise researchers to abandon virtually all attempts to

72. George L. Priest & Benjamin Klein, *The Selection of Disputes for Litigation*, 13 J. LEGAL STUD. 1, 2 (1984); see also Kevin M. Clermont & Theodore Eisenberg, *Do Case Outcomes Really Reveal Anything About the Legal System? Win Rates and Removal Jurisdiction*, 83 CORNELL L. REV. 581, 587-92 (1998) (discussing how the case-selection effect complicates inferences made from plaintiff win rate data). This paragraph and the remainder of this Part are based on Matthew Sag, *Predicting Fair Use*, 73 OHIO ST. L.J. 47, 83 (2012).

73. See generally Robert H. Gertner, *Asymmetric Information, Uncertainty, and Selection Bias in Litigation*, 1993 U. CHI. L. SCH. ROUNDTABLE 75 (summarizing the vast literature following on from the Priest-Klein model).

74. See Priest & Klein, *supra* note 72. We explore this possibility in Part III.B.3.

75. Latin meaning "other things being equal." *Ceteris Paribus*, MERRIAM-WEBSTER (2022), <https://www.merriam-webster.com/dictionary/ceteris%20paribus> [<https://perma.cc/9U2Z-R4CC>]. As used in economics and other disciplines, it means that as one thing changes, researchers assume for the sake of argument that all other things, known and unknown, are held constant.

study the impact of law in the real world.⁷⁶ Although we take the selection effects issue seriously, we think it would be a shame to abandon an empirical project such as our study of the possible effects of *eBay* on subsequent case law. The fact remains that litigated cases are important.⁷⁷ They are constantly subject to ad hoc empirical assessments.⁷⁸ Disputes that culminate in written decisions are the primary source of information for lawyers and judges who attempt to understand the contours of the law.⁷⁹

Written opinions are particularly important because they provide analogies and reasoning that can be applied or extended in future cases.⁸⁰ Lawyers and academics constantly assess “what really happened” by analyzing judicial decisions to inform their understanding of the law and how likely the same rule will apply in future cases.⁸¹ These types of explanations are prone to the very same selection bias that qualifies the findings presented in this study.⁸² We submit that a little light is better than none.

II. METHODS AND DATA

The hypothesis we set out to test for this Article is that the Supreme Court’s decision in *eBay* precipitated a much more significant change in copyright law than has generally been appreciated. For the reasons explained in Part I, we were skeptical of claims that courts had ignored *eBay* in copyright infringement cases and that it had virtually no effect on the administration of copyright injunctions. We believed that it was far more likely that *eBay* was significant for copyright cases but that its impact may have been obscured by hysteresis. In other words, we hypothesized that *eBay* had not been ignored and that it had indeed had a significant effect on copyright injunctions but that this effect was somewhat delayed by the doctrinal conservatism of lower courts and the parochial

76. See Sag, *supra* note 72, at 83.

77. *Id.*

78. *Id.*

79. *Id.*

80. *Id.*

81. *Id.*

82. *Id.*

nature of appellate court precedents. In this Part, we explain the data and methods we used to put our alternative theory to test.

A. Our Dataset

We assembled a dataset of 518 copyright injunction decisions made by U.S. federal district courts between January 1, 2000, and December 31, 2019.⁸³ This dataset includes all 262 decisions in reported cases and 256 decisions in unreported cases. Our set of reported cases is exhaustive. We found them by identifying candidate copyright injunction cases using the West Key Number System and LexisNexis keywords.⁸⁴ We reviewed each reported case found in response to the initial search to determine if it was, in fact, a copyright injunction decision and, if so, whether an injunction was granted or denied.⁸⁵ The unreported cases in our dataset represent a random sample of a broader set of an estimated 1,168 unreported copyright injunction decisions. For the unreported cases, we identified potential copyright injunction decisions by combining search terms for “copyright” and “injunct*” in the Westlaw and Lexis databases. We then divided the potential cases into four roughly

83. We focused on district court decisions because that is where the day-to-day application of copyright law takes place and because court of appeals decisions are far less numerous. See Matthew Sag, *Empirical Studies of Copyright Litigation*, in 2 RESEARCH HANDBOOK ON THE ECONOMICS OF INTELLECTUAL PROPERTY LAW 511, 520-21 (Peter S. Menell & David L. Schwartz eds., 2019) (discussing why empirical studies are more aptly focused on district court decisions). We did not combine district court and court of appeals decisions because appellate review is a fundamentally different activity from adjudication at first instance, undertaken by a separate pool of decision makers, and governed by different institutional rules and norms.

84. The West Key Number System is an extensive taxonomy of American law maintained by Thomson Reuters Westlaw. Within that system, topics 99.I.k1-100 relate to copyright law, and keys 85 and 86 cover “preliminary injunctions” and “permanent relief.” West Key Numbers are assigned to cases by Westlaw editors who summarize the contents of each decision in Westlaw’s headnotes that accompany each case made available in that database. To validate the accuracy of the West Key Numbers, we also reviewed reported cases identified by the LexisNexis keywords “copyright” and “injunction”/“preliminary injunction” in the Lexis Federal Cases database. Based on our initial West Key criteria, we identified a set of 356 reported decisions, 309 of which were, in fact, copyright injunction decisions. Our review of the Lexis data overlapped substantially with the Westlaw data but also yielded an additional 239 cases. Upon review, only 27 of these additional cases were, in fact, copyright injunction decisions.

85. We also identified 55 reported and 9 unreported federal courts of appeal decisions on copyright injunctions. These decisions are not included in our main dataset.

equivalent time periods and manually reviewed a random subset in each era that yielded a total of 256 cases.⁸⁶

B. Timing

Our dataset spans a 20-year time horizon beginning several years before the 2006 *eBay* decision and concluding more than a decade afterwards. We ended our data collection with cases from 2019 on the assumption that data from 2020 and 2021 were likely to be substantially skewed by the COVID-19 pandemic. The period our dataset covers is long enough that we can identify and examine the impact of intervening, crosscutting, and reinforcing developments in the relevant case law.

To facilitate this analysis, we divided the time series of our study into four separate periods that correlate with events that we regard as significant in relation to the impact of *eBay* on copyright cases. The first period on which we focus is the pre-*eBay* period from 2000 to 2006.⁸⁷ Looking at the copyright injunction cases decided prior to *eBay* is essential to understanding what effect *eBay* might have had.⁸⁸ The other three periods on which we focus are 2007-2010 (the immediate aftermath period), 2011-2014 (which we are calling the *Salinger-Flexible* period), and 2015-2019 (which we are calling the consensus period). We began this study with the hypothesis of hysteresis or delayed effect: the simplest way to think about this theory is that, if it is correct, there should be more citations to *eBay* and fewer injunctions granted in the third and fourth periods than in the immediate aftermath period.

86. Each decision was assigned a random number using a function in Stata 16 that generates uniformly distributed random numbers between 0 and 1. The decisions were then sorted according to that number and reviewed in order. One of us and a research associate reviewed 495 of a set of 2,258 potential copyright injunction decisions, 256 of which were actual copyright injunction decisions. The Appendix discusses some differences in citations to *eBay* and injunction grants in reported decisions (that is, those published in the Federal Reporter series) and unreported decisions (that is, those available on Lexis or Westlaw).

87. Given that *eBay* was decided mid-2006, this period includes a handful of post-*eBay* cases, but we decided that we could afford to sacrifice that fine degree of precision and simply deal in complete calendar years.

88. Unlike the Liu study, our study includes copyright injunction cases both before and after the *eBay* decision. The Liu study focused only on post-*eBay* decisions. See Liu, *supra* note 7, at 218, 228. It presented no data about preliminary or permanent injunction grant rates before the *eBay* decision. See *id.*

C. Coding Cases as Grant or Deny

The primary focus of this study is on judicial decisions about whether to grant or deny injunctions to restrain actual or likely copyright infringements.⁸⁹ The vast majority of the cases in our sample involved requests for injunctions for claimed violations of copyright plaintiffs' exclusive reproduction, distribution, and public performance rights under the Copyright Act of 1976.⁹⁰ However, our sample also includes a few cases in which copyright plaintiffs moved for injunctions under the anticircumvention provisions of the Digital Millennium Copyright Act (DMCA)⁹¹ and the Visual Artists Rights Act (VARA).⁹²

We treated an order for the destruction of infringing materials as equivalent to the grant of an injunction when the intent of the order was clearly to prevent ongoing or future infringement.⁹³ Following this reasoning, we excluded cases solely concerned with the impounding of infringing items in the possession of non-infringers.⁹⁴

89. We excluded cases in which the court had no injunction-related decision to make and in which the injunction issue was for something other than copyright infringement. Also excluded were *Metropolitan Regional Information Systems, Inc. v. American Home Realty Network, Inc.*, 904 F. Supp. 2d 530, 533 (D. Md. 2012) (needing clarification of injunction for procedural reasons unrelated to the merits of injunction decision), *aff'd*, 722 F.3d 591 (4th Cir. 2013), and *Software Freedom Conservancy, Inc. v. Westinghouse Digital Electronics, LLC*, 812 F. Supp. 2d 483, 488, 491 (S.D.N.Y. 2011) (holding nonparty in contempt for noncompliance with a court order). Another unusual case was *Biosafe-One, Inc. v. Hawks*, 524 F. Supp. 2d 452, 467-69 (S.D.N.Y. 2007) (denying a preliminary injunction because of weak likelihood of success but granting the defendant's motion for an injunction restraining plaintiff from sending additional Digital Millennium Copyright Act (DMCA) takedown notices). The pro-defendant injunction is outside the scope of our selection criteria. We simply coded this case as a denial and ignored the grant of a pro-defendant injunction.

90. The exclusive economic rights of copyright owners are set forth in 17 U.S.C. § 106(1)-(6).

91. *Id.* § 1201(a)(2); *see, e.g.*, *Universal City Studios, Inc. v. Reimerdes*, 111 F. Supp. 2d 294, 312-15 (S.D.N.Y. 2000) (granting preliminary injunction against posting of computer program code because of likely success on merits of § 1201 claim).

92. 17 U.S.C. § 106A; *see, e.g.*, *Cohen v. G & M Realty L.P.*, 988 F. Supp. 2d 212, 225, 227 (E.D.N.Y. 2013) (denying preliminary injunction to preserve graffiti art on the walls of a building).

93. *See, e.g.*, *Nat'l Council of Exam'rs for Eng'g & Surveying v. Cameron-Ortiz*, 626 F. Supp. 2d 262, 269-70 (D.P.R. 2009).

94. *See, e.g.*, *Societe Civile Succession Richard Guino v. Int'l Found. for Anticancer Drug Discovery*, 460 F. Supp. 2d 1105, 1107-09 (D. Ariz. 2006).

We made a few simplifying assumptions in order to reduce the complexity of hundreds of individual cases into a simple binary choice between “grant” and “deny.” For example, when the plaintiff’s motion for an injunction was granted in part and denied in part, we simply coded it as granted on the theory that if the plaintiff had asked for less, its request would have been met in full.⁹⁵ We also treated a defendant’s unsuccessful motion to stay or modify or reconsider an injunction as equivalent to the grant of an injunction.⁹⁶ In an extremely small number of cases, we needed to make a judgment call on whether to classify the decision as grant or deny.⁹⁷

III. RESULTS

In the initial four years after the *eBay* decision, our data show that courts cited *eBay* in copyright injunction cases much more frequently than the Liu study reported. Courts cited *eBay* in 25% of the immediate aftermath cases in our sample, which rose to 30% if default judgment cases are excluded, not 11% of immediate aftermath cases as Liu reported.⁹⁸ Citations to *eBay* in our sample rose to 41% in contested (that is, non-default judgment) cases between 2011 and the end of 2019.⁹⁹ During those years, citations to the Supreme Court’s *Winter* decision, as well as *Salinger* and *Flexible*, rose dramatically, particularly in preliminary injunction cases. So even when courts did not cite *eBay* when considering injunction motions, they generally cited one of its progeny. Indeed, 60% of the

95. See, e.g., *Nat’l Med. Care, Inc. v. Espiritu*, 284 F. Supp. 2d 424, 439 (S.D. W. Va. 2003).

96. See, e.g., *Fox Television Stations, Inc. v. FilmOn X, LLC*, 968 F. Supp. 2d 134, 138-41 (D.D.C. 2013).

97. In three default judgment cases decided on the same day, all involving plaintiff Purzel Video GmbH, the court ordered the defendants to destroy all copies of the plaintiff’s motion pictures from any computer hard drive within the defendants’ possession, custody, or control but denied the plaintiff’s request for an order enjoining the defendants from directly or indirectly infringing on the plaintiff’s copyright because the plaintiff had failed to proffer evidence sufficient to justify that request. See *Purzel Video GmbH v. Biby*, 13 F. Supp. 3d 1127, 1138-40 (D. Colo. 2014); *Purzel Video GmbH v. Martinez*, 13 F. Supp. 3d 1140, 1152 (D. Colo. 2014); *Purzel Video GmbH v. Smoak*, 70 F. Supp. 3d 1222, 1234 (D. Colo. 2014). We coded these as denials.

98. See Liu, *supra* note 7, at 228. See *supra* note 49 for a summary of problems with Liu’s data and his analysis.

99. The figure is scarcely different regardless of whether we include or exclude default judgments.

contested copyright injunction cases decided between 2011 and 2019 cited to *eBay* or one of its progeny.

Grant rates for permanent injunctions went up slightly in the immediate *eBay* aftermath period. But grant rates have tapered off since 2011. In the most recent consensus period, courts granted permanent injunctions in 70% of the contested cases in our sample as compared with 81% in the six years before *eBay*.¹⁰⁰ Grant rates for preliminary injunctions have also declined from 63% pre-*eBay* to 42% in the most recent consensus period.¹⁰¹ Even in default judgment cases, the grant rate has fallen, from 96% in the pre-*eBay* era to 86% most recently.¹⁰²

At least as notable as are the grant rate declines post-*eBay* is the decline in the relative proportion of requests for preliminary and final injunctions in contested copyright infringement cases compared with the number of copyright cases filed in federal district courts.¹⁰³ Indeed, the ratio of permanent injunctions to copyright filings in 2015-2019 was less than half what it was in 2007-2010.¹⁰⁴ Similarly, the ratio of preliminary injunctions to copyright cases filed dropped by over 70% in the same period.¹⁰⁵ We surmise that many plaintiffs who had plausible, but not particularly strong, actual or likely infringement claims may have been deterred from seeking injunctions because they could no longer rely on the pre-*eBay* automatic presumption of irreparable harm. Copyright owners must now offer proof about the irreparable harm they would suffer unless an injunction issues, explain why a damage award would not suffice, and show why the balance of hardships tips in their favor and why an injunction is in the public interest.¹⁰⁶

While our data do not prove that *eBay* caused a decline in the grant rates for injunctions in copyright infringement cases or in the number of injunctions sought, the correlation we establish is at least suggestive of causation. Our results are certainly inconsistent with

100. See *infra* Table 8.

101. See *infra* Table 8.

102. See *infra* Table 8.

103. See *infra* Part III.B.3.

104. See *infra* Part III.B.3.

105. See *infra* Part III.B.3.

106. See *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 391 (2006).

Liu's thesis that *eBay* has had no or very little effect on the availability of injunctions in copyright infringement cases.¹⁰⁷

A. Citation Trends

Our data show that citation trends in the post-*eBay* reported copyright cases are broadly consistent with the hysteresis thesis.¹⁰⁸ Courts cited *eBay* in 30% of contested cases in our sample decided between 2007 and 2010 and in about 41% of the contested cases thereafter.¹⁰⁹

In this Section, we first report the overall citation trends for *eBay* and its progeny (that is, *Winter*, *Salinger*, and *Flexible*). Thereafter, we focus on differences in citation rates in permanent injunction and preliminary injunction cases in the three post-*eBay* periods. We explain why *eBay* is less likely to be cited in default judgment cases.

Decomposing the data in this fashion reveals that *eBay* has become increasingly influential in contested permanent injunction cases. However, it took somewhat longer for its citation influence to filter down to preliminary injunction and default judgment cases.

1. Citations to *eBay* and Other Significant Decisions in Copyright Cases

We begin with an assessment of citation trends in all copyright injunction cases since *eBay* and then progressively narrow our focus. In Tables 1 and 2 below, we report the citations to *eBay* and its progeny in copyright injunction cases, without distinguishing between preliminary injunctions and permanent injunctions. The data are grouped by time period, with the number of cases in each period listed in the final column. Table 1 includes the default judgment cases; Table 2 excludes them.

107. See Liu, *supra* note 7, at 218.

108. They certainly contradict earlier claims that courts had largely ignored *eBay*. See *id.*; Phillips, *supra* note 37, at 407.

109. See *infra* Table 2.

Table 1. Citations in Copyright Injunction Cases in Percentage Terms

Period	eBay	Winter	Salinger	Flexible	Any	N
2007 to 2010	25%	8%	2%		30%	130
2011 to 2014	48%	21%	18%	8%	59%	118
2015 to 2019	36%	12%	14%	11%	45%	130
All	36%	13%	11%	6%	44%	378

Table 2. Citations in Copyright Injunction Cases in Percentage Terms—Excluding Default Judgments

Period	eBay	Winter	Salinger	Flexible	Any	N
2007 to 2010	30%	14%	3%		40%	73
2011 to 2014	43%	32%	24%	9%	59%	74
2015 to 2019	40%	25%	23%	10%	60%	48
All	37%	24%	16%	6%	52%	195

Courts cited to *eBay* in 25% of our sample's reported and unreported copyright injunction cases in the immediate aftermath period.¹¹⁰ That percentage rose to 48% in the *Salinger-Flexible* period before dropping to 36% in the consensus period.¹¹¹ When omitting default judgment cases, the immediate aftermath citation rate to *eBay* increased to 30% and then to 43% and 40% in the two subsequent periods.¹¹² Based on these figures alone, one could certainly argue *eBay* was not as well cited in those early years as one might have expected, but there is more to the story.

Looking only at citation rates to *eBay* understates the larger influence of *eBay* in the copyright injunction case law. After the

110. See *supra* Table 1.

111. See *supra* Table 1. Our finding that courts cited *eBay* in 25% of the copyrighted injunction decisions in its immediate aftermath contrasts with Liu's estimate of 11%. See *supra* note 46 and accompanying text. Our initial theory was that in addition to hysteresis, the low rate of citation to *eBay* suggested by Liu was due to systematic differences between reported and unreported cases. However, for reasons explained *infra* in the Appendix, the data do not support this explanation. We are grateful to readers of an earlier draft who urged us to explore more carefully the similarities and differences between reported and unreported cases in respect of grants of injunctive relief and citations to *eBay*.

112. See *supra* Table 2.

Supreme Court's *Winter* decision reinforced the Court's commitment to requiring plaintiffs to satisfy a four-factor test to qualify for an injunction and repudiating presumptions of irreparable harm, the Second Circuit in *Salinger* in 2010 and the Ninth Circuit in *Flexible Systems* in 2011 reversed lower courts for failing to follow *eBay*'s directives.¹¹³ We consider *Winter*, *Salinger*, and *Flexible* to be *eBay*'s progeny, each of which amplified the original signal from *eBay* that courts should not issue injunctions based on actual or likely infringement and presumptions alone.¹¹⁴

We wondered whether citations to *Winter*, *Salinger*, or *Flexible* might have displaced citations to *eBay* in some subsequent cases. This seemed particularly likely in the Second and Ninth Circuits, which have long been the leading circuits in copyright cases owing to the large number of litigations involving copyright industry firms located in these jurisdictions.¹¹⁵ Our data show that courts sometimes cited to *Winter* and *Salinger* in contested injunction cases, even in the initial four years after *eBay*.¹¹⁶ Citation rates to those two decisions rose sharply between 2011 and 2014.¹¹⁷ Curiously,

113. See *Salinger v. Colting*, 607 F.3d 68, 84 (2d Cir. 2010); *Flexible Lifeline Sys., Inc. v. Precision Lift, Inc.*, 654 F.3d 989, 1000-01 (9th Cir. 2011) (per curiam).

114. See, e.g., *Salinger*, 607 F.3d at 77-83 (reversing grant of preliminary injunction because lower court presumed irreparable harm after finding *Salinger* was likely to succeed on merits because this presumption was inconsistent with *eBay*).

115. We identified eight copyright injunction decisions that cited the Second Circuit's *Salinger* decision but not *eBay*, and an additional twenty-five decisions that cited *Winter* but not *eBay*. Of the decisions that cited *Salinger*, but not *eBay*, all but one was decided in the Southern District of New York in which *Salinger* is binding authority. Six decisions that cited *Salinger* but not *eBay* nonetheless considered the four *eBay* factors. See *Barcroft Media, Ltd. v. Coed Media Grp., LLC*, 297 F. Supp. 3d 339, 355 (S.D.N.Y. 2017); *McGraw-Hill Glob. Educ. Holdings, LLC v. Khan*, 323 F. Supp. 3d 488, 499 (S.D.N.Y. 2018); *John Wiley & Sons, Inc. v. Book Dog Books, LLC*, 327 F. Supp. 3d 606, 636-37 (S.D.N.Y. 2018); *EMI April Music, Inc. v. Keshmiri*, No. 10-cv-00381, 2012 U.S. Dist. LEXIS 168707, at *17-18 (D. Nev. Nov. 27, 2012); *Wolk v. Kodak Imaging Network, Inc.*, No. 10 Civ. 4135, 2011 U.S. Dist. LEXIS 27541, at *21-22 (S.D.N.Y. Mar. 17, 2011); *Pearson Educ., Inc. v. Labos*, No. 19 Civ. 487, 2019 U.S. Dist. LEXIS 72342, at *9-10 (S.D.N.Y. Apr. 23, 2019). Two decisions cited *Salinger* but did not apply all four of the *eBay* factors. See *WPIX, Inc. v. IVI, Inc.*, No. 10 Civ. 7415, 2011 U.S. Dist. LEXIS 43582, at *13-14 (S.D.N.Y. Apr. 18, 2011) (denying stay of preliminary injunction pending appeal); *Gordon v. Invisible Child.*, No. 14 Civ. 4122, 2014 U.S. Dist. LEXIS 204717, at *3-4 (S.D.N.Y. June 17, 2014) (denying preliminary injunction, in part for failure to show irreparable harm). All but two of the decisions that cited *Winter* but not *eBay* involved preliminary injunctions. See *EMI April Music*, 2012 U.S. Dist. LEXIS 168707, at *3; *Teller v. Dogge*, No. 12-cv-591, 2014 U.S. Dist. LEXIS 139632, at *12-14 (D. Nev. Sept. 30, 2014).

116. See *supra* Table 2.

117. See *supra* Table 2.

citation rates to *Winter* fell off in the 2015-2019 consensus period while citation rates to *Salinger* and *Flexible* remained fairly constant.¹¹⁸

Another useful way to assess the influence of *eBay* and its progeny is to combine the citation statistics to discern the percentage of cases in which courts cited at least one of the four major cases. Table 2 shows that 40% of the contested copyright injunction decisions in the immediate aftermath period cited at least one of the three key precedents (*Flexible* had not yet been decided).¹¹⁹ This is, of course, somewhat higher than the 30% of decisions that cited *eBay* in that period.¹²⁰ But the gap in citation rates to *eBay* and its progeny widened over time. In the *Salinger-Flexible* era, 59% of the contested injunction cases cited at least one of the four major cases, as compared to 43% that cited *eBay*.¹²¹ During the consensus period, 60% of the contested injunction cases cited at least one of the four, compared to 40% which cited only *eBay*.¹²²

Also noteworthy is the year-on-year variation in citations to *eBay* and its progeny. Figure 1, below, presents the underlying data from Table 2 graphically. The figure plots three different lines, one representing the normalized rate of citation to *eBay* alone, one combining citations to either *eBay* or *Winter*, and one that represents citations to any of the four.

118. See *supra* Table 2.

119. See *supra* Table 2.

120. See *supra* Table 2.

121. See *supra* Table 2.

122. See *supra* Table 2.

Figure 1. Citations in Copyright Injunction Cases in Percentage Terms—Excluding Default Judgments

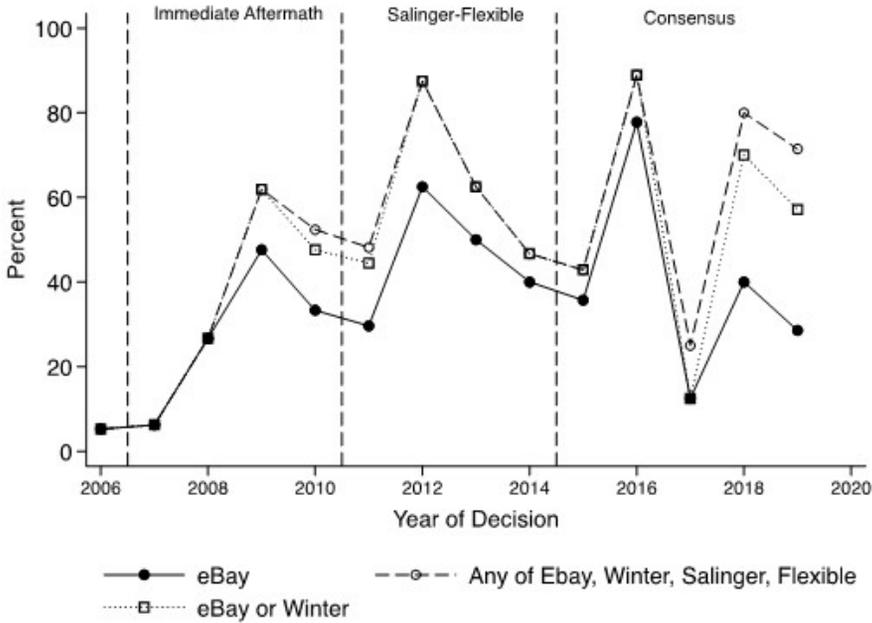


Figure 1 is a useful complement to the tables above in that it highlights the year-to-year variation in the citation trends summarized in multiyear increments in the earlier tables. For example, it is apparent from Figure 1 that *eBay* was cited in as many as 77% of contested copyright injunction cases in 2016 but in only 12.5% of decisions in 2017.¹²³ We strongly suspect that these ups and downs are simply random variation, exacerbated by the relatively small number of cases in some years. Looking to the combined citation data in Figure 1, there are three years in which one or more of *eBay*, *Winter*, *Salinger*, or *Flexible* are cited in 80% or more of non-default copyright injunction decisions: 2012, 2016, and 2018.¹²⁴

An alternative way of estimating the impact of *eBay* was to search the texts of all cases in our dataset for references to the third *eBay*

123. See *supra* Figure 1.

124. See *supra* Figure 1.

factor, that is, assessing “the balance of hardships between the plaintiff and defendant” that an injunction would cause.¹²⁵ We estimated the number of cases that applied this factor by searching for the terms “balance of harm,” “balance of hardship,” “balance of equities,” “balance of the equities,” “balance the hardship,” “balance the harm,” “balance of the hardship,” “balance of the harm,” and “balance of parties’ hardship.” We also coded a case as referring to the third *eBay* factor if the word “balance” appeared in the same paragraph as the stem for the word “irreparable.” The importance of balancing hardships if an injunction issued was not unknown to copyright law before *eBay*, but the Supreme Court’s *eBay* decision placed a new emphasis on the need to do this balancing.¹²⁶

Table 3. References to Balance

Period	All Cases	Final Contested	Final Default Judgment	Preliminary Injunction
2000 to 2006	59%	6%	4%	78%
2007 to 2010	71%	50%	24%	82%
2011 to 2014	74%	56%	64%	84%
2015 to 2019	75%	70%	41%	83%
All	68%	42%	37%	81%

As Table 3 shows, references to a balance of harms as between plaintiffs and defendants were always common in the preliminary injunction cases. After *eBay*, there was a slight increase in balancing references, these appeared in an average of 83% of the preliminary injunction decisions across the three post-*eBay* periods, compared with 78% before *eBay*.¹²⁷

The contrast in judicial references to balancing in the context of final injunction decisions, however, is striking. In the pre-*eBay* cases, courts almost never discussed the need to take balances into account.¹²⁸ As Table 3 shows, only 6% of contested permanent injunction decisions and only 4% of default judgment cases contained

125. *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 391 (2006).

126. *See, e.g., Nat'l Med. Care, Inc. v. Espiritu*, 284 F. Supp. 2d 424, 441 (S.D. W. Va. 2003).

127. *See supra* Table 3.

128. *See supra* Table 3.

references to harm balancing. In the post-*eBay* contested cases, balance-of-harms references jumped to 50% in the immediate aftermath of *eBay*, up to 56% in the *Salinger-Flexible* period, then to 70% in the consensus period.¹²⁹

Courts were, however, much slower to embrace the balance-of-harms directive of *eBay* in default judgment cases. We found express references to the need to balance harms in only 24% of default judgment cases in the immediate aftermath of *eBay*, although that figure rose to 64% in the *Salinger-Flexible* period, before dropping back to 41% in the consensus period.¹³⁰

In sum, the increasing prevalence of references in final injunction cases to the need to assess the balance of harms between plaintiff and defendant—one of the central teachings of *eBay*—strongly suggests that *eBay* has had a profound effect on copyright injunction jurisprudence, even in cases that did not directly cite the Supreme Court opinion.

2. Citations in Contested Final Injunction Decisions

In this Section and a subsequent Subsection, we consider citation rates to *eBay* and its progeny, first in permanent injunction cases and then in preliminary injunction cases. *eBay* was, of course, a permanent injunction patent infringement case,¹³¹ and *Winter* was a preliminary injunction case in a case of non-IP litigation.¹³² Given this, we expected that *eBay* would be cited more frequently in permanent injunction cases, particularly the contested cases, and *Winter* would be cited more frequently in preliminary injunction cases. Because *Salinger* and *Flexible* were both preliminary injunction copyright infringement cases,¹³³ we also expected that courts would more likely cite to *Salinger* and *Flexible* in preliminary injunction cases than in permanent injunction cases.

129. See *supra* Table 3.

130. See *supra* Table 3.

131. See *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 390-91 (2006).

132. See *Winter v. Nat. Res. Def. Council, Inc.*, 555 U.S. 7, 12 (2008).

133. *Salinger v. Colting*, 607 F.3d 68, 73 (2d Cir. 2010); *Flexible Lifeline Sys., Inc. v. Precision Lift, Inc.*, 654 F.3d 989, 990 (9th Cir. 2011) (per curiam).

Table 4. Citations to *eBay* and Related Cases in Contested Final Injunction Decisions, 2000-2019

Period	eBay	Winter	Salinger	Flexible	Any	N
2007 to 2010	46%		4%		46%	26
2011 to 2014	44%	8%	8%	4%	48%	25
2015 to 2019	57%	4%	30%	9%	65%	23
All	49%	4%	14%	4%	53%	74

Table 4 shows that, as we expected, courts cited to *eBay* much more often than to *Winter* when ruling on permanent injunction motions. Specifically, courts cited to *eBay* in 49% of contested permanent injunction cases decided between 2007 and 2019, as compared to a mere 4% of citations to *Winter*.¹³⁴ In the most recent consensus period, courts cited to *eBay* in 57% of the contested permanent injunction cases and only once to *Winter*.¹³⁵

Somewhat surprising, however, was the greater frequency of citations to *Salinger* and *Flexible* in contested permanent injunction cases than to *Winter*. *Salinger*'s influence was particularly evident in the most recent period when courts cited it in 30% of the permanent injunction decisions.¹³⁶ The hysteresis thesis, which posited that *eBay* had a delayed effect in copyright infringement injunction decisions, is evident in the contested permanent injunction cases reported in Table 4. Contrary to Liu's assertion that *eBay* was rarely cited,¹³⁷ our data show that *eBay* has been consistently cited in roughly half of contested copyright permanent injunction cases since 2007.¹³⁸ Furthermore, when one factors in citations to *eBay*'s progeny, the citation rate to *eBay* and/or its progeny rises to 65% in the consensus period of our study.¹³⁹

134. See *supra* Table 4.

135. See *supra* Table 4.

136. See *supra* Table 4.

137. Although the text of Liu's article reported that courts cited *eBay* in only 11% of the cases in his sample, it is apparent from a close examination of certain of his tables and footnotes that his dataset citation rate to *eBay* was actually 20%, if one excludes default judgment cases. See Liu, *supra* note 7, at 228, 236 n.98.

138. See *supra* Table 4.

139. See *supra* Table 4.

As impressive as is the most recent period's 65% citation rate to *eBay* and its progeny in the contested permanent injunction cases,¹⁴⁰ especially when contrasted with Liu's little-or-no-effect conclusion about *eBay*'s impact, one might wonder why courts do not cite *eBay* or its progeny even more frequently.

To shed light on this question, we reviewed the eight contested permanent injunction decisions in the consensus era that did not cite *eBay*, *Winter*, *Salinger*, or *Flexible*. Typically, in these non-citing cases, the court's discussion of an injunction grant or denial was cursory because the merits were quite straightforward. In *Ali v. Final Call, Inc.*, for example, the court found the defendant had willfully infringed the plaintiff's copyright, as well as having previously violated that plaintiff's copyrights in two other works.¹⁴¹ The court focused its discussion on statutory damages and devoted a mere half sentence to the award of an injunction.¹⁴² *Bernath v. Seavey* was a simple piracy case in which the court thought very little analysis was required to enjoin a vexatious pro se litigant.¹⁴³ Similarly, in *Adobe Systems Inc. v. SKH Systems, Inc.*, a straightforward software piracy case, the court explained in a short order that an injunction was required because the defendant continued to sell unlicensed versions of the plaintiffs' software even after the lawsuit had been filed.¹⁴⁴ Some straightforward cases favored defendants, as in *Fey v. Panacea Management Group LLC*, in which the court denied an injunction because the plaintiff was unable to prove damage and the defendant had ceased the infringing conduct.¹⁴⁵ Our inference from reviewing these cases is that some courts do not cite *eBay* simply because their decisions were made, rightly or wrongly, without detailed exposition. Judicial economy also accounts for another apparently clear-cut software copyright infringement case *Quetel Corp. v. Abbas*, in which the district court summarily applied all of the *eBay* factors but without citing *eBay*.¹⁴⁶

140. See *supra* Table 4.

141. 289 F. Supp. 3d 863, 868 (N.D. Ill. 2017).

142. See *id.* at 869.

143. No. 15-cv-358-FtM-38CM, 2017 U.S. Dist. LEXIS 203155, at *5 (M.D. Fla. Dec. 11, 2017).

144. No. A-17-CA-018, 2017 U.S. Dist. LEXIS 212321, at *18-19 (W.D. Tex. Dec. 27, 2017).

145. 261 F. Supp. 3d 1297, 1314 (N.D. Ga. 2017).

146. No. 17-cv-471, 2018 U.S. Dist. LEXIS 231798, at *17 (E.D. Va. Oct. 25, 2018).

In only three cases, courts not only failed to cite *eBay* but also seemed to not have absorbed its most important teachings. Two of these cases involved unlicensed public performances of music at restaurants, in which district courts relied on earlier authorities that are inconsistent with *eBay*.¹⁴⁷ In *Dassault Systemes, SA v. Childress*, the court invoked the four-factor test from *eBay* but cited a pair of trademark cases, which in turn cited *eBay*.¹⁴⁸ The district court in *Dassault Systemes* combined its four-factor analysis with the propositions that “copyright infringement is presumed to give rise to irreparable injury” and that “where there is potential for future harm from infringement, there is no adequate remedy at law.”¹⁴⁹ Both are inconsistent with the *eBay* decision.

3. Citations in Default Judgment Injunction Decisions

There are obvious and important differences between contested permanent injunction decisions and default judgment cases. Our data reflect these differences. As shown in Table 5, the default judgment decisions in the immediate aftermath of *eBay* rarely mentioned the Supreme Court’s *eBay* decision, citing it at a rate of only 16%. In the *Salinger-Flexible* period, however, the citation rate to *eBay* or its progeny jumped to 59%.¹⁵⁰ Yet, in the consensus era, the citation rate to these cases settled back to 36%.¹⁵¹

147. See *Broad. Music, Inc. v. Benchley Ventures, Inc.*, 131 F. Supp. 3d 1097, 1105 (W.D. Wash. 2015) (“As a general rule, a permanent injunction will be granted when liability has been established and there is a threat of continuing violations.” (quoting *MAI Sys. Corp. v. Peak Comput., Inc.*, 991 F.2d 511, 520 (9th Cir. 1993))); *Broad. Music, Inc. v. Ken V, Inc.*, 159 F. Supp. 3d 981, 988 (E.D. Mo. 2016) (“Once liability is established, courts will grant permanent injunctions if there is a substantial likelihood of future infringements.” (quoting *Cross Keys Publ’g Co. v. LL Bar T Land & Cattle Co.*, 887 F. Supp. 219, 223 (E.D. Mo. 1995))).

148. No. 09-cv-10534, 2017 U.S. Dist. LEXIS 228214, at *2 (E.D. Mich. Apr. 20, 2017) (citing *Atmos Nation, LLC v. Kashat*, No. 14-cv-11019, 2014 U.S. Dist. LEXIS 81394, at *8 (E.D. Mich. June 16, 2014) (quoting *Audi AG v. D’Amato*, 469 F.3d 534, 550 (6th Cir. 2006))).

149. *Id.* at *3 (quoting *Atmos Nation, LLC v. Kashat*, No. 14-cv-11019, 2014 U.S. Dist. LEXIS 81394, at *9 (E.D. Mich. June 16, 2014)). The court also cited *Bridgeport Music, Inc. v. Justin Combs Publishing*, 507 F.3d 470, 492 (6th Cir. 2007), for the proposition that “[w]here both liability and a threat of continuing infringement have been established, a plaintiff is entitled to injunctive relief.” *Id.* at *1-2.

150. See *infra* Table 5.

151. See *infra* Table 5.

Table 5. Citations to *eBay* and Related Cases in Default Judgment Injunction Decisions, 2000-2019

Period	eBay	Winter	Salinger	Flexible	Any	<i>N</i>
2007 to 2010	16%				16%	55
2011 to 2014	57%	2%	7%	5%	59%	44
2015 to 2019	35%	2%	9%	11%	36%	81
All	34%	2%	6%	6%	36%	180

Some delay in the impact of *eBay* in default judgment cases is understandable when one considers the mechanics of default judgments. Under the Federal Rules of Civil Procedure, a party who “has failed to plead or otherwise defend” may nonetheless be subject to a binding adverse judgment.¹⁵² By defaulting, courts understand defendants to have admitted all well-pleaded factual allegations in the complaints, except those relating to damages.¹⁵³ Once the prerequisites for rendering default judgment have been established, the role of the court is simply to determine whether the unchallenged facts satisfy the requirements of the cause of action and the appropriate remedy.¹⁵⁴

Prior to *eBay*, district courts would almost invariably have granted permanent injunctions in default judgment cases.¹⁵⁵ In the immediate aftermath of *eBay*, even if courts should have been applying the four-factor test, it was probably unrealistic to expect them to do so *sua sponte* with no defendant present to make an argument for withholding injunctive relief. If defendants do not appear in court to defend against claims of infringements or contest an injunction motion, plaintiffs may have found it easy to persuade

152. FED. R. CIV. P. 55(a).

153. *See, e.g.*, McGraw-Hill Glob. Educ. Holdings, LLC v. Khan, 323 F. Supp. 3d 488, 493-94 (S.D.N.Y. 2018) (“A plaintiff’s factual allegations, except those relating to damages, must be accepted as true where, as here, the defendant defaults.” (quoting Gucci Am., Inc. v. Tyrrell-Miller, 678 F. Supp. 2d 117, 119 (S.D.N.Y. 2008))).

154. *See, e.g.*, Broad. Music, Inc. v. Paden, No. 11-02199, 2011 WL 6217414, at *5 (N.D. Cal. Dec. 14, 2011) (“Having determined that default judgment may be entered, the court must now determine the appropriate remedy.” (citing 3A Ent. Ltd. v. Constant Ent., Inc., No. C08-01274, 2009 WL 248261, at *9-10 (N.D. Cal. Jan. 30, 2009))).

155. Part III.B shows that courts issued injunctions in 90% of the 205 default judgment cases in our sample. Of the twenty-one default judgment cases in which courts did not enjoin the defaulting defendants, only one was decided prior to *eBay*. *See infra* Table 8.

courts that these defendants were likely to continue infringing unless restrained from doing so. However, once decisions such as *Salinger* and *Flexible* made it clear that the *eBay* four-factor test must be applied in all copyright injunction cases, there was reason to expect that this would eventually filter down to default judgment cases.¹⁵⁶ The doctrinal conservatism of lower courts described in Part I is likely to be most pronounced in default judgment cases.

Table 6 shows the results of a series of t-tests to establish whether there was a statistically significant difference in citation rates to *eBay* and its progeny between contested permanent injunction decisions and default judgment cases. There was, indeed, a statistically significant difference between the default and contested cases in citations to *eBay* as well as in citations to *eBay* and its progeny.¹⁵⁷ The difference was particularly dramatic in the immediate aftermath of *eBay* (46% compared to 16%), but the difference became insignificant in the 2011 to 2014 period as lower courts took notice of circuit precedent such as *Salinger* and *Flexible*.¹⁵⁸ However, for reasons that are not immediately apparent, the difference became significant once again in the final consensus period of our data (57% compared to 35%).¹⁵⁹

156. See, e.g., *Cell Film Holdings LLC v. Acosta*, No. 16-cv-01853, 2017 U.S. Dist. LEXIS 195864, at *21-22 (D. Nev. Nov. 29, 2017) (declining to issue an injunction in a default judgment BitTorrent copyright infringement case because a damage award would suffice to deter the defendant from further infringements); *Broad. Music, Inc. v. PAMDH Enters., Inc.*, No. 13-CV-2255, 2014 WL 2781846, at *4-5, *8 (S.D.N.Y. 2014) (entering default judgment of infringement of music's public performance right but declining to grant a permanent injunction because the plaintiff failed to offer proof to satisfy its burden under *eBay* and *Salinger*).

157. See *infra* Table 6.

158. See *infra* Table 6.

159. See *infra* Table 6. Forty-one of the default judgment cases in our sample from this period involved internet file-sharing using the BitTorrent protocol; excluding those cases would only increase the *eBay* citation rate to 40%.

Table 6. Citations in Copyright Default Judgment Permanent Injunction Cases in Percentage Terms

Period	eBay		Any		N	
	<i>Contested</i>	<i>Default</i>	<i>Contested</i>	<i>Default</i>	<i>Contested</i>	<i>Default</i>
2007 to 2010	46%***	16%***	46%***	16%***	26	55
2011 to 2014	44%	57%	48%	59%	25	44
2015 to 2019	57%**	35%**	65%***	36%***	23	81
All	49%**	34%**	53%***	36%***	74	180

Differences between reported and unreported figures are significant at the *0.10, **0.05, and ***0.01 levels. Differences at the 0.05 level or smaller are in bold.

4. Citations in Preliminary Injunction Decisions

Turning now to our assessment of citation rates in preliminary injunction cases, we see strong support for the hysteresis thesis. Table 7 shows that in the immediate aftermath period, courts cited to *eBay* in only 20% of the copyright preliminary injunction cases. That figure rose to 42% in the *Salinger-Flexible* period.¹⁶⁰ Although the *eBay* citation rate fell back to 25% in the consensus period, 58% of the consensus period copyright preliminary injunction cases cited to at least one of the four major cases.¹⁶¹

Table 7. Citations to *eBay* and Related Cases in Preliminary Injunction Decisions, 2007-2019

Period	eBay	Winter	Salinger	Flexible	Any	N
2007 to 2010	20%	20%			34%	44
2011 to 2014	42%	44%	33%	10%	65%	48
2015 to 2019	25%	46%	17%	13%	58%	24
All	30%	35%	17%	7%	52%	116

A similar trend can be seen in citations to *Winter*, which the Court decided on November 12, 2008.¹⁶² Courts cited to *Winter* in

160. See *infra* Table 7.

161. See *infra* Table 7.

162. *Winter v. Nat. Res. Def. Council, Inc.*, 555 U.S. 7, 7 (2008).

39% of copyright preliminary injunction decisions in 2009 and 2010.¹⁶³ However, the citation rate rose to 44% in the succeeding years.¹⁶⁴ As we expected, courts cited to *Winter* more often in preliminary than in permanent injunction cases.¹⁶⁵

Turning back to our combined statistic, citations to at least one of the quartet of *eBay*, *Winter*, *Salinger*, or *Flexible* in copyright preliminary injunction cases began at a fairly modest 34% in the immediate aftermath era (before *Flexible* was decided), increased dramatically to 65% in the *Salinger-Flexible* era, before leveling off at 58% in the most recent consensus era.¹⁶⁶

It is understandable that courts would consider it less necessary to cite to *eBay* or its progeny in preliminary injunction as compared with permanent injunction cases. When faced with deciding a motion for a permanent injunction, courts know that the defendant has, in fact, infringed. However, courts often deny preliminary injunctions when plaintiffs have made only a weak showing of likelihood of success on the merits.¹⁶⁷ Courts may also deny preliminary injunctions in copyright cases without reference to *eBay* or its major progeny when defendants have ceased the allegedly infringing acts.¹⁶⁸

* * *

163. Authors' calculation. Note that this is higher than the 20% figure reported in Table 7 because *Winter* was not cited before it was handed down.

164. We calculated a combined figure for 2011 to 2019. See *supra* Table 7 for more granular detail.

165. Courts cited *Winter* more often than *eBay* in preliminary injunction cases in the two most recent periods of our study: 44% of the *Salinger-Flexible* period cases and 46% of those from the most recent period cited *Winter* compared to 42% and 25% of preliminary injunction cases that cited *eBay* in those periods. See *supra* Table 7.

166. See *supra* Table 7.

167. We found more than twenty post-*eBay* preliminary injunction cases in which courts declined to grant the requested relief because of weak evidence of likely infringement. See, e.g., *White v. Alcon Film Fund, LLC*, 955 F. Supp. 2d 1381 (N.D. Ga. 2013) (denying preliminary injunction because of low likelihood of success on merits without citations to *eBay* or its three major progeny).

168. See, e.g., *Vargas v. Viacom Int'l, Inc.*, 366 F. Supp. 3d 578 (S.D.N.Y. 2019) (denying preliminary injunction because the defendant had ceased infringing acts without citation to *eBay* or its major progeny).

Our data and analysis show that lower courts have not largely ignored the implications of the Supreme Court's *eBay* decision in copyright cases.¹⁶⁹ The claim that *eBay* had been ignored was always an exaggeration, and now that more time has passed, it is demonstrably false. It is, of course, possible that lower courts may have cited *eBay* without it actually influencing their decisions. It is also possible that a case such as *eBay* could have been influential without even being cited. The primary question motivating our study was not simply whether courts had acknowledged the *eBay* decision but rather whether *eBay* might have actually caused them to approach copyright injunction cases differently. We turn to that question in the next Section.

B. Grant Rates in Copyright Injunction Cases

1. Summary Data

Our data strongly suggest that *eBay* was associated with a reduction in grant rates for both permanent and preliminary injunctions in copyright cases. Courts were substantially less receptive to motions for preliminary injunctions immediately after *eBay*.¹⁷⁰ The same effect is evident with respect to permanent injunctions, albeit after a lapse of three to four years.¹⁷¹ Although our observational data do not allow us to conclude with certainty that the Supreme

169. *Cf.* sources cited *supra* note 48.

170. *See supra* Table 7.

171. *See supra* Table 6.

Court's decision *caused* these changes,¹⁷² it shows that the claim that *eBay* had almost no effect is contrary to the evidence.¹⁷³

Table 8 summarizes our main findings. For each period and for each type of copyright injunction case, the table indicates the injunction grant rate in percentage terms as well as the relevant numerator and denominator.

Table 8. Grant Rates in Copyright Injunction Decisions, 2000 to 2019

Period	Contested Final		Final Default		Preliminary		<i>N</i>
2000 to 2006	81%	(26 of 32)	96%	(24 of 25)	63%	(55 of 88)	146
2007 to 2010	92%	(24 of 26)	93%	(51 of 55)	50%	(22 of 44)	130
2011 to 2014	76%	(19 of 25)	89%	(39 of 44)	41%	(20 of 49)	118
2015 to 2019	70%	(16 of 23)	86%	(70 of 81)	42%	(10 of 24)	130
All	80%	(85 of 106)	90%	(184 of 205)	52%	(107 of 205)	524

Prior to the *eBay* decision, the grant rate for permanent injunctions in contested copyright infringement cases was 81%.¹⁷⁴ That rate actually increased in the immediate aftermath of *eBay* to 92%¹⁷⁵

172. The observational nature of our data means that we need to be cautious about making any definitive claims of causation. We cannot follow a protocol such as that used to establish the effect of a new drug, in which researchers administer the active drug to one group of patients in the “treatment” group and a placebo to patients in the “control” group. With patients randomly assigned between treatment and control, any differences in the average outcome between the groups is assumed to be due to the new drug. Experimental conditions such as these allow researchers to make strong causal claims. The observational data of real-world outcomes in copyright injunction cases do not permit us to make similarly strong causal claims. We have a treatment group, those cases decided after *eBay*, but no control. The best we can do is compare what happened before *eBay* to what happened afterwards, but we can never rule out the possibility that the changes we have observed since the *eBay* decision was handed down were caused by something other than that decision.

173. See Liu, *supra* note 7, at 218; Phillips, *supra* note 37, at 407.

174. See *supra* Table 8.

175. See *supra* Table 8. This compares to Liu's finding that courts granted permanent injunctions at a rate of 91.5% in the mid-2006 to mid-2010 period. See Liu, *supra* note 7, at 237.

before falling to 76% in the *Salinger-Flexible* period and then to 70% in the consensus period.¹⁷⁶

How meaningful is the decrease from 81% before *eBay* to 70% in the most recent period?¹⁷⁷ A difference of 11 percentage points may not sound particularly impressive. However, from a hypothetical defendant's point of view, this increases the odds of resisting an injunction by more than 60%, from 19 to 30 out of 100.

The hysteresis effect is less evident with respect to injunction decisions in default judgment copyright infringement cases. The grant rate for these cases in our pre-*eBay* baseline period was 96%.¹⁷⁸ It dropped incrementally in each successive period: to 93% in the immediate aftermath of *eBay* and to 89% in the *Salinger-Flexible* period before falling to 86% in the consensus period.¹⁷⁹

The preliminary injunction cases follow a similar pattern, albeit from a lower baseline. Before *eBay*, the grant rate for preliminary injunctions in copyright cases was 63%.¹⁸⁰ The grant rate declined substantially in the immediate aftermath of *eBay* to 50%¹⁸¹ and then to an average of 41.5% in the subsequent two periods.¹⁸²

Because the Supreme Court handed down its *Winter* decision in late 2008,¹⁸³ halfway through the immediate aftermath period, it is useful to look at year-by-year variation. Figure 2 presents the grant rate data reflected in Table 8 at a more granular level. Viewing the data on an annual basis, the plaintiff win rate for preliminary injunctions changed significantly before *Winter* and almost immediately after *eBay*, despite some significant year-to-year variations.¹⁸⁴ Note that it took some time for citations to *eBay* to increase in the preliminary injunction cases; yet, the reduction in the grant rate was immediate.¹⁸⁵

176. See *supra* Table 8.

177. See *supra* Table 8.

178. See *supra* Table 8.

179. See *supra* Table 8.

180. See *supra* Table 8.

181. See *supra* Table 8. We note that this figure is quite similar to Liu's finding that preliminary injunctions were granted at a rate of 45.6% in roughly the same period. Liu, *supra* note 7, at 232.

182. See *supra* Table 8.

183. *Winter v. Nat. Res. Def. Council, Inc.*, 555 U.S. 7, 7 (2008).

184. See *infra* Figure 2.

185. See *infra* Figure 2.

One plausible explanation for this divergence is that judges were heeding the general message from the Supreme Court that more scrutiny was required for injunctions. But they may have also been uncertain about whether *eBay*, a patent law case on the permanent injunction standard, was directly applicable to preliminary injunctions in copyright.

Although we decided to exclude appellate court decisions from our dataset for this study of *eBay*'s impacts,¹⁸⁶ it is noteworthy that at least seven of the fifty-five reported appellate court decisions we excluded from our analysis involved appellate reversals of lower court grants of injunctions. Five reversed preliminary injunction grants, either due to the lower courts' failure to apply the four-factor *eBay* test or because the appellate courts were persuaded that the defendants had stronger defenses to infringement claims than the lower courts had decided.¹⁸⁷ Appellate courts also reversed two trial court permanent injunction grants because of public interest considerations.¹⁸⁸ If one takes these reversals into account, then the post-*eBay* grant rates are even lower than Table 8 indicates.

The pattern for the effect of *eBay* on the grant of permanent injunctions in Figure 2 is less clear; indeed, it may be akin to a Rorschach test. Arguably, the figure supports our hypothesis of a delayed effect for *eBay*, for the general trend is downward.¹⁸⁹ However, given the ups and downs from year to year, regression analysis is required to confirm.

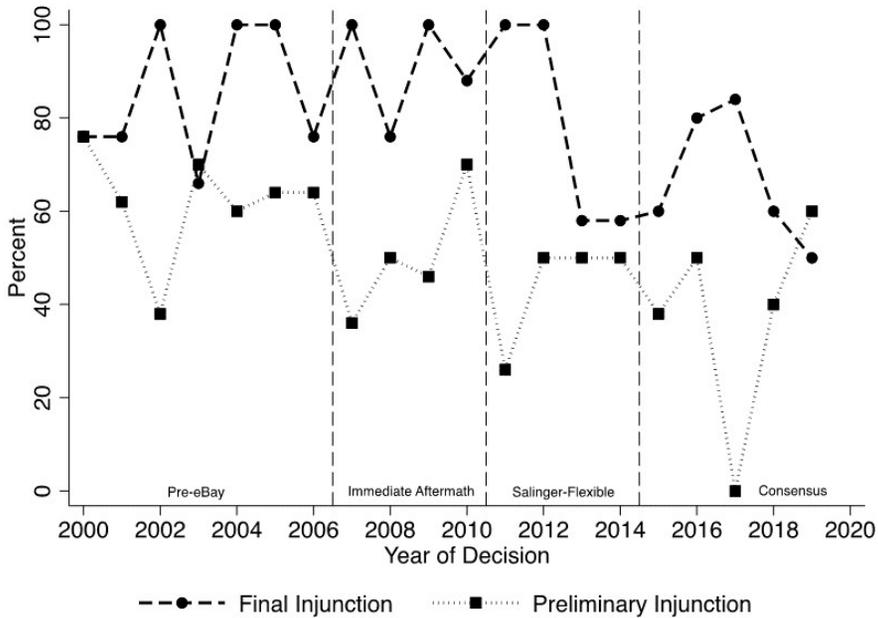
186. See *supra* note 83.

187. These appellate decisions reversed lower court grants of preliminary injunctions for failure to analyze *eBay* factors: *Flava Works, Inc. v. Gunter*, 689 F.3d 754, 755 (7th Cir. 2012); *Flexible Lifeline Sys., Inc. v. Precision Lift, Inc.*, 654 F.3d 989, 995-98 (9th Cir. 2011) (*per curiam*); *Salinger v. Colting*, 607 F.3d 68, 76-79, 83-84 (2d Cir. 2010). See also *Esbin & Alter, LLP v. Sabharwal, Globus, & Lim, LLP*, 403 F. App'x 591 (2d Cir. 2010). Other reversals were based on strong defenses. See, e.g., *Am. Soc'y for Testing & Materials, Inc. v. Public.Resource.org, Inc.*, 896 F.3d 437, 458 (D.C. Cir. 2018); *Patriot Homes, Inc. v. Forest River Hous., Inc.*, 512 F.3d 412, 415-16 (7th Cir. 2008).

188. See *TD Bank N.A. v. Hill*, 928 F.3d 259, 284-86 (3d Cir. 2019) (recognizing a public interest in access to the defendant's book and vacating the permanent injunction); *Cariou v. Prince*, 714 F.3d 694, 712 n.5 (2d Cir. 2013) (holding no injunction was warranted because of the public interest in access to infringing art).

189. See *infra* Figure 2.

Figure 2. Copyright Injunction Grant Rates—Excluding Default Judgments



2. Regression Analysis

In this Article, we set out to test the hypothesis that *eBay* had no effect on copyright injunction decisions and our alternative theory that *eBay* had a delayed effect on those decisions. The summary data we have reported so far is informative on both hypotheses. However, multivariate regression is the appropriate analytical tool to employ when an observed outcome could possibly be influenced by a number of competing considerations.¹⁹⁰ Multivariate regression

190. We have not attempted to analyze the impact of all four of the analytical factors directed by *eBay* on case outcomes in this Article. We note that Liu proposed to isolate the factors within cases that “actually drove the courts to grant or deny a motion for injunction relief” by comparing simple correlations between isolated factors and case outcomes. Liu, *supra* note 7, at 233-35, 240. We think this is the wrong approach. Multivariate regression is essential to properly understand the relative contribution of multiple factors in a context like this. Without access to Liu’s data, we can only speculate, but our speculation is that only a

analysis allows us to understand the relative contributions of a number of different factors, each of which has some influence on case outcomes. Following this approach, we used six different regression models to tease out the significance of different variables on the ultimate question of whether an injunction was granted.

Regression analysis confirms our overall theory of delayed effect¹⁹¹: viewing all copyright injunction cases together, there is a significant decline in grant rates after *eBay*, but only after a considerable delay.¹⁹² However, digging in a bit deeper, the data tell a different story for permanent injunctions than for preliminary injunctions.

The data do not support the hysteresis thesis for preliminary injunctions. There certainly was a significant decline in the grant rate for preliminary injunctions after *eBay*, but that decline was immediate, not delayed.¹⁹³ In contrast, our regression models strongly support the theory of delayed effect for permanent injunctions, even accounting for the influence of default judgments.¹⁹⁴ We explain our methodology and results in more detail below.

a. The Delayed Effect of eBay on Grant Rates

We operationalized our hysteresis hypothesis by including two different variables relating to time in our regression analysis. The first variable, “Post-*eBay*,” simply indicates whether a decision was rendered before or after *eBay*, which was decided in May 2006.¹⁹⁵ We

few of the correlations Liu reports as significant would be significant in a multivariate logistic regression, especially given the small number of cases in his sample where the four factors were applied. For examples of the use of multivariate regression in a similar context, see generally Barton Beebe, *An Empirical Study of U.S. Copyright Fair Use Opinions, 1978-2005*, 156 U. PA. L. REV. 549 (2008); Sag, *supra* note 72, at 73-74. Even using multivariate regression, attributing causation to individual factors would be difficult if, as is the case here, the factors are coded in reliance on “backward-looking judicial reasons and explanations” rather than on externally ascertainable or reasonably objective facts. See Sag, *supra* note 72, at 51 (differentiating his study of fair use on the basis that it relied upon “case facts which existed prior to any judicial determination”).

191. This is subject to the caveat already noted with respect to our inability to actually establish causation. See *supra* note 172.

192. See *infra* Tables 9, 10.

193. See *infra* Tables 9, 10.

194. See *infra* Tables 9, 10.

195. 547 U.S. 388, 388 (2006).

selected 2012 as an additional cutoff point in the data to test our theory of delayed effect. We chose 2012 on the theory that it would allow sufficient time to pick up the amplifying effect we expected to see with respect to *Winter*, *Salinger*, and *Flexible*. As a reminder, these key decisions reinforcing and amplifying the discretionary and equitable nature of injunctive relief were handed down by the Supreme Court in 2008, the Second Circuit in 2010, and the Ninth Circuit in 2011, respectively.¹⁹⁶

The year 2012 is also conveniently at the midpoint of our middle post-*eBay* era. Based on this cutoff point, we added a “Post-2012” dummy variable to our regression analysis. The Post-2012 variable is set to zero for cases decided prior to and including 2012 and to one for cases from 2013 onwards. We also coded an additional value variable to indicate whether the copyright injunction decision in question appeared in a reported or an unreported decision.¹⁹⁷ We then ran a series of logistic regressions to test the relevance of the Post-*eBay* and Post-2012 variables for outcomes in copyright injunction cases.¹⁹⁸

Table 9 reports the results of our first three regression models. Each model seeks to explain whether an injunction was granted in terms of the Post-*eBay* and Post-2012 timing variables just mentioned, as well as variables indicating whether the case was reported and whether it was decided in the Ninth Circuit or the Second Circuit.¹⁹⁹ The models investigate different categories of injunction

196. *Winter v. Nat. Res. Def. Council, Inc.*, 555 U.S. 7, 7 (2008); *Salinger v. Colting*, 607 F.3d 68, 68 (2d Cir. 2010); *Flexible Lifeline Sys., Inc. v. Precision Lift, Inc.*, 654 F.3d 989, 989 (9th Cir. 2011) (per curiam). The last of these cases was decided on August 22, 2011. See *Flexible*, 654 F.3d at 989.

197. The Appendix discusses differences between reported and unreported decisions in their citations to *eBay* and outcomes. See *infra* Table A-1.

198. Linear regression is used to estimate the relationship among independent variables, such as height and age, on a continuous dependent variable, such as weight. However, our dependent variable is a binary outcome: an injunction was either granted or denied. To accommodate the zero-one nature of our dependent variable, we use logistic regression. The results of logistic regression models are expressed in terms of an odds ratio, which is the probability of an event occurring divided by the probability of the event not occurring. Thus, if the reported coefficient in a logistic regression is less than one, the outcome measured by the dependent variable becomes less likely as the value of the independent variable increases. Conversely, if the same coefficient is more than one, the outcome measured by the dependent variable becomes more likely as values of the independent variable increase.

199. Second Circuit decisions account for almost 20% of decisions in our sample, and the Ninth Circuit accounts for 30%. No other circuit accounts for more than 10% of the decisions

decisions. The dependent variable in Model 1 is the decision to grant or deny an injunction (Injunction Granted). Because this model includes permanent and preliminary injunctions, we also include a dummy variable for permanent injunctions and a dummy variable for default judgments. Model 2 focuses on the permanent injunction cases whereas Model 3 focuses on the preliminary injunction cases.²⁰⁰

Table 9. Regression Models 1, 2, & 3

<i>Dependent Variable</i>	Model 1	Model 2	Model 3
Independent Variables	<i>Injunction Granted</i>	<i>Permanent Injunction Granted</i>	<i>Preliminary Injunction Granted</i>
Permanent	4.91***		
Default	2.33**	2.73***	
Post-eBay	0.62*	2.00	0.34***
Post-2012	0.52**	0.23***	1.04
Ninth Circuit	1.39	0.96	1.99*
Second Circuit	0.60**	0.61	0.59
Reported	0.98	1.13	0.80
Constant	1.75*	4.84***	2.28**
Observations	514	313	205
Pseudo R-Squared	0.16	0.09	0.06

Logistic regression using robust standard errors reporting odds ratios. Odds ratios of more (less) than one indicate that the dependent variable is (more) less likely. Statistical significance is indicated as follows: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Results significant at 0.05 or below are indicated in bold.

Our hysteresis thesis is borne out in the general model (Model 1), and in the permanent injunction model (Model 2).²⁰¹ In Model 1, the *Post-eBay* variable is significant at the 0.10 level, which is generally considered insufficient to reject the null hypothesis that a given variable has no effect.²⁰² In Model 2, the *Post-eBay* variable is not

in our sample. When the Ninth Circuit and Second Circuit variables are set to zero, the decision was rendered in some other circuit. There is consequently no need to code an additional variable to that effect.

200. Accordingly, the dependent variable in Model 2 is the decision to grant or deny a permanent injunction (Permanent Injunction Granted), and the dependent variable in Model 3 is the decision to grant or deny a preliminary injunction (Preliminary Injunction Granted).

201. See *supra* Table 9.

202. See *supra* Table 9.

significant.²⁰³ In both models, the Post-2012 variable is significant at the conventional 0.05 level or better.²⁰⁴ In both cases, the coefficient for Post-2012 is an odds ratio of less than one, meaning that the grant of an injunction is far less likely after 2012 than before, all other things being equal.²⁰⁵ The dummy variable for default judgments is also highly significant in both models, with an odds ratio greater than one.²⁰⁶ This means that, unsurprisingly, injunctions are far more likely to be granted in cases of default judgment.

In contrast to Models 1 and 2, there is no evidence of delayed effect when we turn to Model 3, which focuses on preliminary injunction decisions.²⁰⁷ In that model, Post-2012 is not significant, but the Post-*eBay* variable is highly significant (that is, it is significant at the 0.01 level).²⁰⁸ The odds ratio for the Post-*eBay* variable is less than one, which means that courts were significantly less receptive to preliminary injunction motions in copyright cases in the wake of the *eBay* decision.²⁰⁹ The lack of significance in the Post-2012 variable means there is no clear evidence of a significant change after 2012. In other words, the regression results indicate, contrary to our hysteresis thesis, that the decrease in the grant rate for preliminary injunctions after *eBay* was immediate rather than delayed.

b. The Effect of Citing eBay on Grant Rates

Even if the success rate for copyright injunction motions declined after *eBay*, should we attribute that decline to the Supreme Court's decision? As we have noted already, the observational nature of our data precludes us from making strong causal claims. Even so, one indication consistent with an inference of causation would be if cases citing *eBay* were significantly more likely to rule against an injunction. Table 10 reports three additional regression models that parallel those just mentioned, except that Models 4, 5, and 6 each also include an explanatory variable to indicate whether the

203. See *supra* Table 9.

204. See *supra* Table 9.

205. See *supra* Table 9.

206. See *supra* Table 9.

207. See *supra* Table 9.

208. See *supra* Table 9.

209. See *supra* Table 9.

decision cites *eBay* (“Cites *eBay*”). In these last three regression models, the coefficient for Cites *eBay* is less than one, indicating that decisions citing *eBay* are less likely to grant an injunction, all other things being equal.²¹⁰ The Cites *eBay* variable was highly significant in Model 4, which included all injunction decisions, and in Model 5, which focused solely on the permanent injunction decisions.²¹¹ Citing *eBay* was not significant in our final model, which focused on preliminary injunction decisions.²¹²

Table 10. Regression Models 4, 5, & 6

<i>Dependent Variable</i> Independent Variables	Model 4	Model 5	Model 6
	<i>Injunction Granted</i>	<i>Permanent Injunction Granted</i>	<i>Preliminary Injunction Granted</i>
Permanent	5.69***		
Default	2.21**	2.29**	
Cites eBay	0.44***	0.25***	0.86
Post-eBay	0.79	3.94**	0.36***
Post-2012	0.56**	0.26**	1.04
Ninth Circuit	1.52	1.22	2.01*
Second Circuit	0.67	0.83	0.59
Constant	1.06	1.14	0.81
Observations	514	311	205
Pseudo R-Squared	0.176	0.13	0.06

Logistic regression using robust standard errors reporting odds ratios. Odds ratios of more (less) than one indicate that the dependent variable is (more) less likely. Statistical significance is indicated as follows: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Results significant at 0.05 or below are indicated in bold.

Interestingly, the addition of the Cites *eBay* variable in Model 4 dilutes the significance of the Post-2012 variable that we observed in Model 1.²¹³ This suggests that the Post-2012 effect and the Cites *eBay* effect are intertwined and that the latter dominates. Moreover, the addition of the Cites *eBay* variable to our regression model focusing on permanent injunction decisions, Model 5, makes the

210. See *infra* Table 10.

211. See *infra* Table 10.

212. See *infra* Table 10.

213. Compare *supra* Table 9, with *supra* Table 10.

Post-*eBay* variable significant.²¹⁴ The odds ratio here is more than one, meaning that the grant of an injunction is *more* likely, all other things being equal.²¹⁵

Translating the odds ratio coefficients in Model 5 to ordinary English: injunctions were more likely to be granted in default judgment cases after *eBay* but less likely to be granted in cases citing *eBay* and in cases decided after 2012.²¹⁶ Both Models 4 and 5 indicate that courts in permanent injunction cases were significantly less likely to grant an injunction in decisions citing *eBay* than in those failing to cite that case.²¹⁷ These results suggest that the emerging reluctance of courts to issue permanent injunctions in copyright decisions is related to, and arguably caused by, *eBay*. Our failure to find the same evidence in relation to preliminary injunctions is best understood as inconclusive. We suspect that the insignificance of the Cites *eBay* variable in preliminary injunction cases may be due to the displacement effect of *Winter* discussed above.²¹⁸

3. eBay's Effect on Requests for Injunctive Relief

So far, we have concentrated on citation rates and grant rates. We believe that the increased citation rate for *eBay* and its progeny is meaningful, as are the decreased grant rates for both permanent and preliminary injunctions. However, focusing only on these trends creates a risk of overlooking significant changes in the number of plaintiffs who actually asked for injunctive relief in copyright infringement cases. These numbers, in turn, must be assessed against broader trends in copyright litigation.

214. See *supra* Table 10.

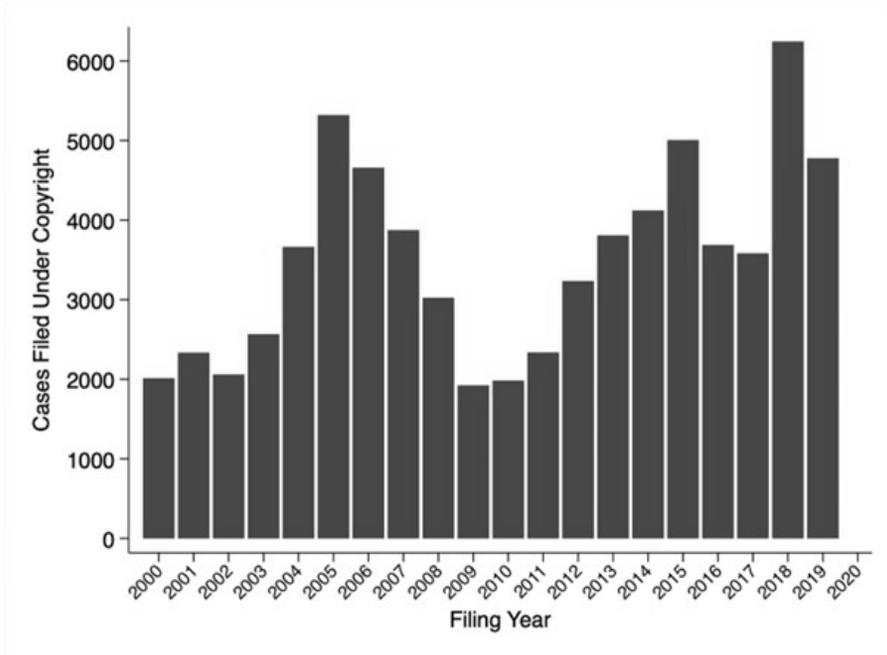
215. See *supra* Table 10.

216. See *supra* Table 10.

217. See *supra* Table 10.

218. We should, however, note that in unreported regressions substituting in “Cites *Winter*” for “Cites *eBay*,” the Cites *Winter* variable was not significant.

Figure 3. Copyright Cases Filed in U.S. District Courts, 2000-2019



To make this assessment, we combined our data on district court copyright injunction decisions with case filing data we obtained from PACER.²¹⁹ As seen in Figure 3, the number of copyright cases filed over the course of our study has ranged from just under 2,000 per year in 2009 and 2010 to a high point of over 5,300 in 2005 and another even higher point exceeding 6,200 in 2018. Previous scholarship has shown that the increase that peaked in 2005 was associated with the recording industry's end-user file-sharing litigation and that a second peak beginning in 2012 was caused by an explosion of BitTorrent-related litigation.²²⁰ In light of this instability in the underlying number of copyright cases filed, it

219. Public Access to Court Electronic Records (PACER) is an electronic public access service that allows users to obtain case and docket information from federal appellate, district, and bankruptcy courts. PACER is maintained by the Administrative Office of the U.S. Courts. See generally PACER, <https://pacer.uscourts.gov/> [<https://perma.cc/49VQ-Z53N>].

220. See generally Matthew Sag, *Copyright Trolling, an Empirical Study*, 100 IOWA L. REV. 1105, 1108, 1114 (2015).

makes sense to normalize our data on injunction decisions as a percentage of total filings. The usual delay between case filing and decision means that the PACER filing data are not perfectly matched to the copyright injunction decisions in our dataset. This might be problematic if we reported injunction decisions as a percentage of cases filed on an annual basis, but it is unlikely to cause any substantial inaccuracy when we divide the data into multiyear time periods as we have done throughout this Article.

Table 11 indicates the number of copyright cases filed in each period and how that compares in percentage terms to the number of injunction decisions.

Table 11. Copyright Injunction Decisions Compared to Case Filings

Period	Copyright Cases Filed Per Year	Injunction Decisions as a Percentage of Copyright Cases Filed			
		<i>All</i>	<i>Contested Final</i>	<i>Default</i>	<i>Preliminary</i>
2000 to 2006	3,230	1.19%	0.25%	0.27%	0.65%
2007 to 2010	2,701	3.57%	0.49%	1.75%	1.23%
2011 to 2014	3,375	2.47%	0.37%	1.21%	0.89%
2015 to 2019	4,659	1.94%	0.21%	1.40%	0.32%
All	3,491	2.04%	0.30%	1.05%	0.67%

As seen in Table 11, the ratio of injunction decisions made to copyright disputes filed is quite small. Our data suggest that for every 100 copyright cases filed in federal court, only two proceed to the point at which a decision to grant or deny injunctive relief under the Copyright Act was required.²²¹ Admittedly, because we rely on written opinions made available on Westlaw and Lexis, we are almost certainly undercounting the real number of injunction decisions.²²² Given this possibility of undercounting, the variations

²²¹ See *supra* Table 11.

²²² We attempted to verify our results by comparing them to data obtained from Lex Machina, a private data vendor. Lex Machina provides detailed information on case filings

between different periods are more informative than the exact percentages themselves.

The number of copyright cases filed per year was relatively low in the immediate aftermath of the *eBay* decision, only 2,701 per year; but it rose to 3,375 in the *Salinger-Flexible* period and to 4,659 in the consensus period.²²³ Taking this context into account, the data show that the relative frequency of contested final injunctions has actually decreased in the post-*eBay* period: from 0.49%, to 0.37% and then to 0.21% of copyright filings.²²⁴ The same trend holds for preliminary injunctions, which fell from 1.23% in the immediate aftermath of *eBay* to 0.89% in *Salinger-Flexible* period and then to a mere 0.32% in the most recent period.²²⁵ There was not a comparable decline in default judgment cases, but this was to be expected.²²⁶ For reasons explained earlier, the impact of *eBay* in default judgment cases was always likely to be modest.²²⁷ Even though courts in default judgment cases may now be more skeptical when plaintiffs seek permanent injunctions, the economics of default judgment litigation, at least in the file-sharing context, is driven almost entirely by the prospect of getting an award of statutory damages and attorney fees.²²⁸ Compared to the pre-*eBay* period, the sharp increase in the number of permanent injunctions being sought in the context of default judgments appears to be a secular trend driven by the most recent waves of file-sharing litigation.²²⁹

We surmise that the decline in the number of contested permanent injunctions and preliminary injunctions being sought may reflect plaintiffs' internalization of a chilling effect in response to

and certain attributes of those cases based on filing data and records obtained from PACER. See generally LEXMACHINA, <https://lexmachina.com/> [<https://perma.cc/HLS2-NLUS>]. The Lex Machina data suggest that written decisions available on Westlaw and Lexis account for only a fraction of injunction decisions made by U.S. district courts. Unfortunately, the Lex Machina data do not cover the entire period of our study. Moreover, we were unable to rely on the Lex Machina data due to various limitations with the data and our access to it.

223. See *supra* Table 11.

224. See *supra* Table 11.

225. See *supra* Table 11.

226. See *supra* Table 11.

227. See *supra* Part III.A.3.

228. See generally Sag, *supra* note 220.

229. See Samuelson, *supra* note 9, at 838.

eBay. If plaintiffs' lawyers are aware that courts have increasingly accepted that *eBay* made the standard for obtaining injunctive relief more difficult to meet, then it stands to reason that some may have been decided not to press for such relief. This potential chilling effect is an important implication of the *eBay* decision on its own terms. However, as noted in our discussion of selection effects in Part I.C, it is also an important context for interpreting the citation rate and grant rate data we have reported. In a counterfactual world in which litigants did not adapt their behavior to the more demanding standard implied by *eBay*, citations to *eBay* and associated cases would surely be even higher and plaintiff success rates would surely be lower.

In short, our data strongly suggest that *eBay* was associated with a reduction in grant rates for both permanent and preliminary injunctions in copyright cases. For preliminary injunctions, this reduction was immediate and dramatic,²³⁰ it was also accompanied by a decline in the number of cases seeking preliminary relief.²³¹ For permanent injunctions, the decline was delayed until at least 2011 and regression analysis supports the view that an inflection point was reached by the end of 2012.²³² By itself, this data cannot establish that the Supreme Court's decision in *eBay* caused these trends, but the data support the doctrinal account in *Withholding Injunctions in Copyright Cases* to this effect.²³³ What we can say without any qualification, however, is that the available data are *inconsistent* with the claim that *eBay* had no real impact.

IV. OTHER EVIDENCE THAT EBAY MADE A DIFFERENCE IN COPYRIGHT INJUNCTION CASES

Unlike the 2012 Liu study of post-*eBay* copyright injunction cases and Christopher Seaman's study of post-*eBay* permanent injunctions in patent cases,²³⁴ we did not code for other case

230. See *supra* Tables 9, 10.

231. See *supra* Table 11.

232. See *supra* Tables 9, 10.

233. See Samuelson, *supra* note 9, at 813-30.

234. For his empirical study of the impact of *eBay* on the grant of permanent injunctions in patent infringement cases, Christopher Seaman had a sample of 218 district court cases decided within a 7.5-year period after *eBay*. Seaman, *supra* note 2, at 1952, 1976-77.

characteristics, such as types of plaintiffs and defendants or specific district or circuit courts.²³⁵ This was partly because of the law of small numbers. The copyright injunction cases in which we were most interested were the post-*eBay* cases, of which there were only 309 (of an estimated 676) that did not involve default judgments, only 47 of which (of an estimated 123) were decided in the consensus era.²³⁶ Given how heterogeneous are the subject matters of copyright—everything from visual art to music to data compilations to computer programs—and the wide range of persons or entities likely to sue and be sued, we decided that relatively few additional insights would be attained by slicing and dicing our sample of these cases in this way. Besides, we had the advantage of some insights from the qualitative study of pre- and post-*eBay* copyright injunction cases that one of us had recently written, which nicely complements the more quantitative study on which we report in this Article.²³⁷

Samuelson's qualitative study suggests that *eBay* and its progeny made a difference in several types of cases.²³⁸ Prior to *eBay*, courts were, for instance, more likely to enjoin infringing appropriation art than in the post-*eBay* era.²³⁹ Apart from appropriation art, courts post-*eBay* are now more willing to consider the public's interest in access to certain infringing works.²⁴⁰ *eBay* has also made courts in copyright cases more attentive to harms that third parties might suffer if an injunction is issued.²⁴¹ Moreover, courts in the post-*eBay*

235. See Liu, *supra* note 7, at 233 tbl.1 (breaking down copyright injunction cases by circuit); Seaman, *supra* note 2, at 1985-86 tpls.1 & 2 (breaking down patent injunction cases by district courts).

236. See *supra* Part II.A.

237. See generally Samuelson, *supra* note 9.

238. See *id.* at 813-30.

239. See *Andy Warhol Found. for the Visual Arts, Inc. v. Goldsmith*, 992 F.3d 99, 117 (2d Cir. 2021) (suggesting no need for an injunction in appropriation art infringement case). Compare *Rogers v. Koons*, 960 F.2d 301, 313 (2d Cir. 1992) (ordering artist to turn over infringing work), with *Cariou v. Prince*, 714 F.3d 694, 712 n.5 (2d Cir. 2013) (citing *eBay* and *Salinger* and directing lower court to reconsider injunctive relief for remanded paintings).

240. Compare *TD Bank N.A. v. Hill*, 928 F.3d 259, 285-86 (3d Cir. 2019) (reversing permanent injunction despite substantial amount of infringement of unpublished work because of public's interest in Hill's book), with *New Era Publ'ns Int'l, ApS v. Henry Holt & Co.*, 873 F.2d 576, 583 (2d Cir. 1989) (holding that unpublished works generally get complete protection against infringement).

241. See, e.g., *Softech Worldwide, LLC v. Internet Tech. Broad. Corp.*, 761 F. Supp. 2d 367 (E.D. Va. 2011) (denying injunction because of Veterans Administration's interests in

era have even become more receptive to defense arguments about harms defendants would suffer from issuance of an injunction.²⁴² Several post-*eBay* cases in which courts denied injunctions involved litigants who had been in contractual relationships with one another.²⁴³

eBay's repudiation of the long-standing presumption of irreparable harm from likely or actual infringement has meant that courts have had to pay more serious and sustained attention to the types of harm that plaintiffs claim they will suffer unless an injunction issues. A failure to articulate why harms are irreparable and to offer proof to back up those claims is likely to result in a denial of injunctive relief.²⁴⁴ Before *eBay*, the exact copying of open-source software code by a competitor would almost certainly have triggered a presumption of irreparable harm and been enjoined, but post-*eBay*, a plaintiff's failure to prove that this infringement would cause irreparable harm resulted in a judicial denial of injunctive relief.²⁴⁵ When an infringement was of a relatively small part of an

defendant's continued use of allegedly infringing software); *Chirco v. Crosswinds Cmtys., Inc.*, 474 F.3d 227, 235-36 (6th Cir. 2007) (considering impact of injunction on third parties); *see also* *Flexible Lifeline Sys., Inc. v. Precision Lift, Inc.*, 654 F.3d 989 (9th Cir. 2011) (per curiam) (reversing grant of preliminary injunction against continued use of allegedly infringing technical drawings for third party maintenance purposes).

242. *See, e.g.*, *SAS Inst., Inc. v. World Programming Ltd.*, 874 F.3d 370, 387-88 (4th Cir. 2017) (affirming denial of permanent injunction in contract and copyright infringement case because of likely "ruinous" effects on defendant's business); *Molinelli-Freytes v. Univ. of P.R.*, 792 F. Supp. 2d 150, 163 (D.P.R. 2010) (denying injunction in part because of defendant's interest in continuation of educational program); *Nos. Licensing, LLC v. bVisual USA, Inc.*, 643 F. Supp. 2d 1245, 1255 (E.D. Wash. 2009) (denying preliminary injunction because the defendant needed to use the allegedly infringing code); *Kendall Holdings, Ltd. v. Eden Cryogenics LLC*, 630 F. Supp. 2d 853, 865, 869 (S.D. Ohio 2008) (no injunction despite strong likelihood of success on merits in part because of hardship to defendant).

243. *See, e.g.*, *Flexible*, 654 F.3d at 991; *Softech*, 761 F. Supp. 2d at 371; *Nos. Licensing*, 643 F. Supp. 2d at 1247; *see also* *Energy Intel. Grp., Inc. v. CHS McPherson Refinery, Inc.*, 300 F. Supp. 3d 1356, 1378 (D. Kan. 2018) (denying injunction against subscriber of newsletter because no showing of irreparable harm or inadequacy of damages).

244. *See, e.g.*, *Int'l Swaps & Derivatives Ass'n v. Socratek, L.L.C.*, 712 F. Supp. 2d 96 (S.D.N.Y. 2010); *Microsoft Corp. v. AGA Sols., Inc.*, 589 F. Supp. 2d 195, 204 (E.D.N.Y. 2008).

245. *See* *Jacobsen v. Katzer*, 609 F. Supp. 2d 925, 937-38 (N.D. Cal. 2009). The Federal Circuit ordered the lower court to presume irreparable harm on remand, *Jacobsen v. Katzer*, 535 F.3d 1373, 1382-83 (Fed. Cir. 2008), but the district court declined to do this on remand because of *Winter. Jacobsen*, 609 F. Supp. 2d at 936; *see also* *Calibrated Success, Inc. v. Charters*, 72 F. Supp. 3d 763, 773-74 (E.D. Mich. 2014) (denying injunction despite infringing sales of videos because plaintiff failed to address *eBay* factors); *Microsoft Corp.*, 589 F. Supp. 2d at 204 (declining to issue injunction against software counterfeiter because Microsoft failed

otherwise noninfringing work, courts in the post-*eBay* case law have been more likely to decide that damages will adequately compensate plaintiffs for the infringement.²⁴⁶ Courts are, moreover, likely to deny injunctions when harms that plaintiffs are suffering, while real and irreparable, are not among those that copyright law seeks to vindicate.²⁴⁷ Since *eBay*, courts have sometimes withheld injunctive relief if they perceived plaintiffs' requests for injunctions to be oppressive.²⁴⁸

This brief review of several types of cases in which courts declined to issue injunctions after *eBay* does not explain why the overall grant rate declined. But it seems quite plausible that the heavier burdens that *eBay* and its progeny imposed on plaintiffs to prove an entitlement to injunctive relief have had some effect. Courts now give greater attention to copyright harms, adequacy of damages, balances of hardships, and broader public interests than in the pre-*eBay* era,²⁴⁹ when plaintiffs merely had to show actual or likely infringement, which triggered presumptions of irreparable harm that generally carried the day for plaintiffs who wanted injunctive relief.²⁵⁰

to satisfy *eBay*'s four-factor test).

246. *See, e.g.*, Christopher Phelps & Assocs., LLC v. Galloway, 492 F.3d 532, 545 (4th Cir. 2007) (affirming denial of permanent injunction in part because it would affect noninfringing elements of the infringing house); *Frerck v. John Wiley & Sons, Inc.*, 850 F. Supp. 2d 889, 893 (N.D. Ill. 2012) (declining to enjoin books containing infringing photographs in otherwise noninfringing books); *Grant Heilman Photography, Inc. v. John Wiley & Sons, Inc.*, 864 F. Supp. 2d 316, 335 (E.D. Pa. 2012) (denying plaintiff's motion for preliminary injunction because they failed to show they would suffer irreparable harm). Prior to *eBay*, courts sometimes enjoined small-part infringements. *See, e.g.*, *Woods v. Universal City Studios, Inc.*, 920 F. Supp. 62, 65 (S.D.N.Y. 1996) (ordering injunction because five minutes of 130-minute film infringed plaintiff's copyright in drawing for stage set). Courts did not enjoin any of the post-*eBay* small-part infringements of the cases considered in Samuelson's qualitative study. *See Samuelson, supra* note 9, at 849.

247. *See, e.g.*, *Garcia v. Google, Inc.*, 786 F.3d 733, 745, 747 (9th Cir. 2015) (en banc) (denying injunction because death threats were not harms of the sort that copyright law protects); *Bollea v. Gawker Media, LLC*, 913 F. Supp. 2d 1325, 1329-31 (M.D. Fla. 2012) (denying injunction because harms were not to plaintiff's copyright interests but to his privacy interests).

248. *See, e.g.*, *TD Bank N.A. v. Hill*, 928 F.3d 259, 284 (3d Cir. 2019); *Phelps*, 492 F.3d at 544-45.

249. *See, e.g.*, *Garcia*, 786 F.3d 733 (balancing harms); *Bollea*, 913 F. Supp. 2d 1325 (balancing harms and public interest).

250. *See, e.g.*, *Rogers v. Koons*, 960 F.2d 301, 312 (2d Cir. 1992) (invoking the presumption of irreparable harm).

By a curious coincidence, the overall permanent injunction grant rate in Seaman's study of patent infringement cases is very close (roughly 70%) to the overall grant rate for permanent injunctions during the consensus period in our study, at least in contested copyright infringement cases.²⁵¹ Also similar is the fact that grant rates were slightly higher in the first few years after *eBay*, but were lower thereafter.²⁵² It appears, moreover, that demands for permanent injunctions in patent infringement cases have declined,²⁵³ a result consistent with our findings with respect to contested copyright injunction decisions. Seaman's study showed that permanent injunctions were less likely to issue when patent infringements involved small components of larger products, a result that was statistically significant.²⁵⁴ Because we did not code for the small-part-of-larger-product factor, we cannot report a statistically significant parallel finding, but the qualitative study of copyright infringement decisions included numerous examples of courts withholding injunctions when the infringement pertained to a small part of a larger otherwise noninfringing work.²⁵⁵ At a high level of generality, these two studies support the view that *eBay* has indeed had a statistically significant impact on the availability of injunctive relief in these two major IP regimes.

CONCLUSION

The results presented in this Article refute what we now know has been an enduring misconception about an important feature of U.S. copyright law: the belief that courts overwhelmingly issue injunctions upon a showing of actual or likely infringement, *eBay*

251. Seaman's study showed courts granted permanent injunctions in 72.5% of the patent cases in the 7.5 years post-*eBay* in his sample. Seaman, *supra* note 2, at 1983. This result was consistent with findings from earlier empirical studies of grant rates in patent cases. *Id.* Interestingly, the grant rate diminished to less than 70% of the patent cases decided after 2007. *Id.* at 1983-84; *see supra* Table 8 (showing a 70% grant rate for permanent injunctions in reported non-default-judgment copyright cases).

252. *See* Seaman, *supra* note 2, at 1983-84; *supra* Table 8 and text accompanying note 175.

253. *See* Thomas F. Cotter, *Lex Machina Patent Litigation Report 2020*, COMPAR. PAT. REMEDIES (Mar. 2, 2020), <http://comparativepatentremedies.blogspot.com/2020/03/lex-machina-patent-litigation-report.html> [<https://perma.cc/48JX-8FGR>].

254. Seaman, *supra* note 2, at 1998.

255. *See* cases cited *supra* note 246.

notwithstanding. For the past decade, academic commentators have generally accepted as sound and abidingly accurate the 2012 Liu study's conclusions that courts have largely ignored the Supreme Court's 2006 decision in *eBay Inc. v. MercExchange* and that the decision made essentially no difference in the injunction grant rate in copyright cases.²⁵⁶

The idea of conducting a follow-up empirical study of the post-*eBay* injunctions in copyright cases was stimulated by Samuelson's qualitative study of the post-*eBay* copyright injunction case law.²⁵⁷ That study found more than eighty post-*eBay* decisions in which courts had withheld injunctive relief and followed *eBay*'s directive that plaintiffs must prove their entitlement to injunctive relief.²⁵⁸ We decided to conduct this empirical study to test the hypothesis that *eBay* may have made more of a difference in copyright cases over time. In this Article, we have presented substantial evidence that the Court's 2006 ruling has had a profound impact on the development of U.S. copyright law. That impact is apparent in the frequency of citations to *eBay* and its progeny and in the greater frequency with which judges post-*eBay* discuss balancing hardships before granting permanent injunctions.²⁵⁹ We also found evidence consistent with a related hypothesis that injunctions became more difficult to obtain in the aftermath of *eBay*.

We were able to test the impact of *eBay* in a more empirically sound way than Liu because we were careful to distinguish between different types of copyright injunction decisions, particularly between contested and default judgment cases, and because we were able to analyze a considerably longer timeline of cases.²⁶⁰ Our hypothesis was that rather than being overlooked or ignored in copyright cases, *eBay* was merely a slow starter. More formally, we hypothesized that a full realization of the import of the Court's 2006 patent law decision would take time in copyright cases and that we would be able to detect a kind of hysteresis—a delay between cause and effect—at work.²⁶¹ Given the Supreme Court's reticence in

256. See *supra* note 7 and accompanying text.

257. See *supra* note 9 and accompanying text.

258. See *supra* note 9 and accompanying text.

259. See *supra* Table 4.

260. See *supra* Tables 4, 5.

261. See *supra* Part I.B.

elucidating the copyright implications of its 2006 decision, the doctrinal conservatism of lower courts, and the parochial nature of appellate court precedents, we posited a delayed effect was likely.

Our study shows that *eBay* was never as poorly cited as earlier studies suggested. In any event, it is now well cited, either directly or indirectly through citations to cases which themselves rely on *eBay*.²⁶² The longitudinal citation trend fits with our theory of hysteresis in preliminary injunction and default permanent injunction cases. Hysteresis applies less clearly only in contested permanent injunction decisions, where citation to *eBay* was stronger from the outset.²⁶³ Moreover, we presented even clearer evidence of the impact of *eBay* in the content of injunction decisions. We showed that, prior to *eBay*, courts almost never discussed the need to assess the balance of potential harm between plaintiffs and defendants in contested permanent injunction cases, whereas subsequent to *eBay*, addressing the balance of harms became commonplace.²⁶⁴

Even more consequentially, our study shows that courts no longer grant injunctions as of right or by presuming irreparable harm in copyright cases in the aftermath of *eBay*. We have shown that since *eBay* was decided, the number of final injunction decisions and preliminary injunction decisions has fallen relative to the number of copyright cases filed.²⁶⁵ We have also shown that the success rate within that smaller cohort has also declined.²⁶⁶ Strictly speaking, we cannot prove that these changes occurred because of *eBay*, but that seems the most logical explanation. In permanent injunction decisions and across all of copyright injunction decisions, the decline manifested several years after the *eBay* decision.²⁶⁷ Thus, we see hysteresis at work again, although the decline in preliminary injunction grant rates was substantial and immediate.

The cumulative implication of our numerous findings is that lawyers, academics, and policymakers who have previously accepted as received truth that courts in copyright injunction cases have “totally ignored the *eBay* decision” and that *eBay* “has not altered

262. See *supra* Part III.A.

263. See *infra* Table A-3.

264. See *supra* Table 3.

265. See *supra* Table 11.

266. See *supra* Part III.B.3.

267. See *supra* Part III.B.3.

the fact that most courts are reluctant to withhold injunctive relief²⁶⁸ should now realize that such pronouncements were always questionable and are now clearly outdated. This Article offers considerable evidence that *eBay* and its progeny have had profound effects on judicial decisions about whether to grant or deny injunctions in copyright cases.

268. GOLDSTEIN, *supra* note 48, §§ 13.1.2.2, 13.2.1 (quoting Liu, *supra* note 7, at 218).

APPENDIX: COMPARING REPORTED AND UNREPORTED COPYRIGHT
INJUNCTION DECISIONS

Jiarui Liu characterized his 2012 article, *Copyright Injunctions After eBay*, as “an empirical study based on all *reported* copyright-injunction decisions during the period from May 15, 2006 (the issuing date of the *eBay* decision) to June 1, 2010.”²⁶⁹ Our initial attempts to replicate that study’s dataset using the same criteria resulted in far fewer cases than Liu reported and in dramatically different grant rates.²⁷⁰ After confirming with Liu that his reference to “reported” decisions actually meant that the decisions in his dataset were available on Lexis and Westlaw,²⁷¹ we hypothesized that the differences between the grant rates we observed and the ones he reported were due to fundamental differences between reported and unreported cases.

Our theory was that if *eBay* had had any effect on how courts approached copyright injunctions, that effect would likely be most pronounced in close-question “hard” cases and least visible in “easy” (for example, simple piracy) cases. We thought judges would be more likely to write opinions for publication in the federal reporters in “hard” cases. We also expected that courts would decide comparatively “easy” cases with minimal explanation and judges would consequently be less likely to recommend their opinions for the federal reporters.

Our data show that, in general terms, judges are more likely to cite to *eBay* in reported (44%) than in unreported copyright injunction decisions (28%).²⁷² Moreover, the average grant rate in reported cases is much lower (69%) than in the unreported cases (77%).²⁷³ These differences are significant at the 0.05 level.²⁷⁴ However, as the

269. See Liu, *supra* note 7, at 228 (emphasis added).

270. See *supra* Part II.A.

271. For federal district court cases, the conventional understanding is that a decision is “reported” if it is published in the Federal Supplement or the Federal Rules Decisions. Likewise, decisions of the federal courts of appeal are “reported” if they appear in the Federal Reporter. This understanding is reflected in the design of the Westlaw and Lexis databases, both of which allow the user to refine their search to include only “reported” cases.

272. See *infra* Table A-1.

273. See *infra* Table A-2.

274. See *infra* Tables A-1, A-2.

tables below indicate, the differences between reported and unreported cases in the aggregate are not consistently significant across our four time periods.²⁷⁵ And just as importantly, the difference is not consistent across our three categories of injunction decisions: contested permanent injunctions, permanent injunctions in default judgment cases, and preliminary injunctions.²⁷⁶

Table A-1. Comparing Citations in Reported and Unreported Cases—Excluding Default Judgments

Era	eBay		Any		N	
	<i>Reported</i>	<i>Unreported</i>	<i>Reported</i>	<i>Unreported</i>	<i>Reported</i>	<i>Unreported</i>
2007 to 2010	34%	23%	38%	42%	47	26
2011 to 2014	49%*	33%*	64%	52%	47	27
2015 to 2019	52%**	26%**	68%	52%	25	23
All	44%**	28%**	55%	49%	119	76

Differences between reported and unreported figures are significant at the *0.10, **0.05, and ***0.01 levels. Differences at the 0.05 level or smaller are in bold.

Table A-2. Comparing Grant Rates in Reported and Unreported Copyright Injunction Decisions

Era	Reported	Unreported	N Reported	N Unreported
2000 to 2006	71%	74%	105	39
2007 to 2010	78%	77%	69	56
2011 to 2014	56%***	77%***	57	60
2015 to 2019	68%	77%	31	97
All	69%**	77%**	262	252

Differences between reported and unreported figures are significant at the *0.10, **0.05, and ***0.01 levels. Differences at the 0.05 level or smaller are in bold.

Table A-1 shows that *eBay* was cited significantly more in reported copyright injunction decisions compared to unreported decisions, at a rate of 44% compared to 28%. The same pattern appears in each

275. See *infra* Table A-1 for citation and *infra* Table A-2 for grant rates.

276. See *infra* Table A-3 for citation and *infra* Table A-4 for grant rates.

of the periods following *eBay*.²⁷⁷ However, the difference between reported and unreported citation rates was not significant in the immediate aftermath of *eBay* and only weakly significant in the period from 2011 to 2014.²⁷⁸ The difference becomes significant at the traditional 0.05 level in the 2015 to 2019 period.²⁷⁹

If we expand our focus to cases citing *eBay* or one of *eBay*'s progeny, *Winter*, *Salinger*, or *Flexible*, there is no significant difference overall or in any of the post-*eBay* periods. A similarly equivocal picture emerges with respect to the difference in grant rates between reported and unreported copyright judgment decisions in Table A-2. Although injunction grant rates in unreported cases were significantly higher overall (77% compared to 69%), that difference is only statistically significant in the *Salinger-Flexible* era beginning in 2011.²⁸⁰

277. See *supra* Table A-1.

278. See *supra* Table A-1.

279. See *supra* Table A-1.

280. See *supra* Table A-2.

Table A-3. Comparing Citations in Reported and Unreported Cases by Case Type

	Era	eBay		Any		N	
		<i>Reported</i>	<i>Unreported</i>	<i>Reported</i>	<i>Unreported</i>	<i>Reported</i>	<i>Unreported</i>
Final Excluding Defaults	2007 to 2010	50%	33%	50%	33%	20	6
	2011 to 2014	44%	43%	44%	57%	18	7
	2015 to 2019	60%	50%	73%	50%	15	8
	All	51%	43%	55%	48%	53	21
Final Default Judgment	2007 to 2010	12%	20%	12%	20%	25	30
	2011 to 2014	64%	55%	64%	58%	11	33
	2015 to 2019	29%	35%	43%	35%	7	74
	All	28%	36%	30%	37%	43	137
Preliminary	2007 to 2010	21%	20%	25%*	45%*	24	20
	2011 to 2014	50%*	30%*	75%**	50%**	28	20
	2015 to 2019	44%**	13%**	67%	53%	9	15
	All	38%**	22%**	54%	49%	61	55

Differences between reported and unreported figures are significant at the *0.10, **0.05, and ***0.01 levels. Differences at the 0.05 level or smaller are in bold.

To discern differences between reported and unreported cases more carefully, we decomposed the data according to the type of injunction decision at play. Table A-3 shows that *eBay* is consistently cited at a higher rate in the reported permanent injunction decisions in contested cases and in the reported preliminary injunction decisions. Nonetheless, the differences are not statistically

significant overall, or for any individual period.²⁸¹ The difference in citations between reported and unreported preliminary injunction decisions is significant overall for citations to *eBay* and for citations to one or more of *eBay* and its progeny in the *Salinger-Flexible* period.²⁸²

The difference we expected between reported and unreported cases completely broke down as to permanent injunctions in default judgment cases. In that context, *eBay* is actually cited more in the unreported cases overall and in the immediate aftermath of *eBay*.²⁸³ Contrary to the overall trend, courts cited *eBay* substantially more in reported default judgment cases in the remaining two periods.²⁸⁴ However, none of the differences between reported and unreported default judgment cases proved to be statistically significant.²⁸⁵

Table A-4. Comparing Grant Rates in Reported and Unreported Copyright Injunction Decisions

	Period	Reported	Unreported	<i>N</i> Reported	<i>N</i> Unreported
Final Non-Default	2000 to 2006	79%	88%	24	8
	2007 to 2010	95%	83%	20	6
	2011 to 2014	78%	71%	18	7
	2015 to 2019	73%	63%	15	8
	All	82%	76%	77	29
Default	2000 to 2006	100%	92%	13	12
	2007 to 2010	100%	87%	25	30
	2011 to 2014	73%**	94%**	11	33
	2015 to 2019	86%	86%	7	74
	All	93%	89%	56	149
Preliminary	2000 to 2006	64%	58%	69	19
	2007 to 2010	42%	60%	24	20
	2011 to 2014	34%	50%	29	20
	2015 to 2019	44%	40%	9	15
	All	52%	53%	131	74

Differences between reported and unreported figures are significant at the *0.10, **0.05, and ***0.01 levels. Differences at the 0.05 level or smaller are in bold.

281. See *supra* Table A-3.

282. See *supra* Table A-3.

283. See *supra* Table A-3.

284. See *supra* Table A-3.

285. There are similar trends in citations to *eBay* and its progeny.

As noted above, looking across our entire sample, courts granted injunctions at a rate of 77% in unreported cases and at a substantially lower rate of 69% in reported cases.²⁸⁶ This difference is statistically significant at the point of the 0.05 level.²⁸⁷ However, as set forth in Table A-4, there is no consistent pattern once we disaggregate the data by time period and injunction type. For non-default permanent injunctions, the grant rate is higher in reported cases in three out of four eras and overall, but none of these differences are statistically significant.²⁸⁸ The grant rate is significantly lower in reported default judgment cases in the *Salinger-Flexible* period, but equal or higher otherwise.²⁸⁹ We observed the expected pattern of grant rates being lower in reported preliminary injunction cases overall and in two out of our four periods, but as well as being inconsistent, the differences are not statistically significant.²⁹⁰

These results, combined with the lack of significance of a dummy variable for reported decisions in our regression analysis, convinced us that our original assumption that there were systematic differences between reported and unreported cases was not supported by the data. Although there is quite clearly a difference overall, that difference turns out to be a product of the much larger proportion of default judgments in the unreported cases rather than an intrinsic difference between reported and unreported decisions as such.

286. See *supra* Table A-2.

287. See *supra* Table A-2.

288. See *supra* Table A-4.

289. See *supra* Table A-4.

290. See *supra* Table A-4.