"HEADS-I-WIN, TAILS-YOU-LOSE": THE PREDICAMENT LEGITIMATE SMALL ENTITIES FACE POST EBAY AND THE ESSENTIAL ROLE OF WILLFUL INFRINGEMENT IN THE FOUR-FACTOR PERMANENT INJUNCTION ANALYSIS

WILLIAM R. EVERDING*

INTRODUCTION

In eBay, Inc. v. MercExchange, L.L.C., a recent landmark case, the Supreme Court overruled at least twenty years of precedent and changed the landscape of remedies for patent infringement. The Supreme Court held that courts must exercise equitable discretion by applying the traditional four-factor test

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2. See Ryan Eddings, Comment, Trolls and Titans Take Fight to Top Court, 18 Loy. Consumer L. Rev. 503, 503 (2006) (discussing the widespread debate that eBay created within the legal, academic, and business forums regarding the proper remedy in patent infringement cases).
when determining whether to issue a permanent injunction in patent infringement cases. This decision sharply contrasted with the Court of Appeals for the Federal Circuit's usual practice of automatically awarding permanent injunctions absent exceptional circumstances.

In eBay, the Supreme Court sought to correct problems with "patent trolls" and left the door open for lower courts to continue the process. The side effects of eBay, however, pose a serious threat to the livelihood of "legitimate small entities," which may or may not practice their patented inventions and seek to enforce their patents for valid reasons. These legitimate small entities, including individual inventors, small businesses, and nonprofit organizations, had relied upon the virtual certainty of permanent injunctions as valuable leverage against potential infringers. After eBay, however, courts may perceive legitimate small entities as patent trolls and deny them permanent injunctive relief.

5. eBay, 126 S. Ct. at 1839, 1841. Pursuant to the traditional four-factor test, a party seeking a permanent injunction must demonstrate:
   (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, remedy in equity is warranted; and (4) that the public interest would not be disserved by a permanent injunction.

6. See, e.g., id. at 1840 (discrediting the Federal Circuit's "general rule in favor of permanent injunctive relief").

7. See infra Part II.A.2 (providing a general definition of "patent troll" and discussing the behavior of entities accused of being patent trolls).

8. See eBay, 126 S. Ct. at 1842 (Kennedy, J., concurring) (instructing lower courts to consider the nature of patents currently being enforced and the patent holder's economic function because courts face new challenges in light of "firms us[ing] patents not as a basis for producing and selling goods but, instead, primarily for obtaining licensing fees").

9. For the purposes of this Comment, a "legitimate small entity" is any small entity that is not reasonably considered a patent troll. See infra notes 51-56 and accompanying text (defining generally and discussing "patent trolls"). Legitimate small entities may or may not practice their patented inventions, and they enforce their patent rights for valid reasons, not merely to extract exorbitant licensing fees.

10. See Jeremiah S. Helm, Comment, Why Pharmaceutical Firms Support Patent Trolls: The Disparate Impact of eBay v. MercExchange on Innovation, 13 MICH. TELECOMM. & TECH. L. REV. 331, 333 (2006) (discussing the predicament "numerous players in different positions" face after eBay because they "fail to practice an invention" even though they have legitimate reasons to enforce their patent rights).


12. See Helm, supra note 10, at 334 (explaining, for example, that
Lower courts now have the opportunity to control the threat to legitimate small entities and shape the new face of patent infringement remedies by defining the weight of each factor of the four-factor test within the context of patent infringement. Thus far, relatively few courts have had the occasion to apply the four-factor test in patent infringement cases; courts have granted permanent injunctions in some cases and denied them in other cases. And the role of willful infringement in the analysis remains unsettled.

This Comment seeks to illustrate the predicament that legitimate small entities face post eBay and the essential role that willful infringement should play in a court's determination of whether to issue a permanent injunction pursuant to the traditional four-factor test. Part I of this Comment explains the vital role legitimate small entities play in the American economy. Part II outlines eBay's dramatic effect on the standard courts use when determining whether to issue permanent injunctions against patent infringers. Part III analyzes the adverse consequences eBay presents for legitimate small entities. Finally, Part IV demonstrates the essential role of willful infringement under the traditional four-factor test and proposes that inclusion of willful infringement in the analysis can help remedy the predicament legitimate small entities face post eBay.

"university behavior looks troll-like" in that universities license their patents rather than produce a product, but arguing that injunctive relief should remain open to universities because they are "engaged in ongoing and expensive research").


14. See The Fire of Genius, Injunctions, http://www.thefireofgenius.com/injunctions (last visited Nov. 3, 2007) (providing a running list of cases that have applied eBay as precedent when determining whether to issue a permanent injunction after finding patent infringement).


17. See Amol Parikh, United States: Permanent Injunction Junction: eBay at Work, MONDAQ BUS. BRIEFING, Sept. 29, 2006, available at http://www.mondaq.com/article.asp?articleid=43132&searchresults=1 (summarizing two cases applying the eBay four-factor test wherein it was unclear whether the courts considered willful infringement in granting or denying permanent injunctions).
I. THE IMPORTANCE OF LEGITIMATE SMALL ENTITIES IN THE AMERICAN ECONOMY

Legitimate small entities contribute to the American economy in distinct ways, and patent protection is an important incentive to continue to invent. Accordingly, the United States Patent and Trademark Office ("PTO") formally recognizes the importance of "small entities" by cutting their filing, processing, and issue fees in half. The small entities recognized by the PTO include individual inventors, small businesses, and nonprofit organizations.

18. See Jeff A. Ronspies, Comment, Does David Need a New Sling? Small Entities Face a Costly Barrier to Patent Protection, 4 J. MARSHALL REV. INTELL. PROP. L. 184, 211 (2004) (explaining that legitimate small entities contribute to technical advancement "in ways that large corporations likely never will"). Legitimate small entities fill a void in innovation by pursuing technology that large corporations typically do not, such as technology that is unlikely to produce large initial returns. Id. at 205.

19. See id. at 211 (arguing that if patent protection became effectively unavailable, contributions from legitimate small entities may "simply cease to exist"). Although large and small entities differ in size, they are no different in the sense that patent protection in the form of a time-limited monopoly provides incentive for them to develop and disclose technology to the public. Id.

20. Please note that the definition of "legitimate small entity" adopted by this Comment varies from the PTO's definition of "small entity." See infra note 22 and accompanying text (outlining the PTO's definition of "small entity"). The class of "legitimate small entities" does not include any "small entity" as defined by the PTO that may reasonably be considered a patent troll. Further, the definition of "legitimate small entity" does not include the PTO's limitation that "small entities" cannot assign, grant, convey, or license their patent rights to any party not a small entity and cannot be obligated to do so by contract or law. See id. (defining "small entity").


22. See 35 U.S.C. § 41(h)(1) (2000) (allowing reduced patent fees for "any small business concern as defined under section 3 of the Small Business Act, and to any independent inventor or nonprofit organization as defined in regulations issued by the Director"). PTO regulations define "small entity" as any "person, small business concern, or nonprofit organization." 37 C.F.R. § 1.27(a) (2006). The regulations define a "person" as "any inventor or other individual . . . who has not assigned, granted, conveyed, or licensed, and is under no obligation under contract or law to assign, grant, convey, or license, any rights in the invention" to any party not also qualifying as a small entity. Id. § 1.27(a)(1). Likewise, a "small business concern" qualifies for small entity status if it "has not assigned, granted, conveyed, or licensed, and is under no obligation under contract or law to assign, grant, convey, or license any rights in the invention" to any party not also qualifying as a small entity. Id.
Individual inventors have provided the American public with some of the most significant inventions throughout history. Inventions attributable to individual inventors include atomic energy, penicillin, microwave technology, FM radio, magnetic recording, holography, fiber optics, and insulin. Patent protection provides these individually driven innovators with an incentive to continue to invent and to disclose their technological advancements to the general public.

Small businesses are essential to the economic well-being and security of the United States, and Congress seeks to encourage and develop small businesses. Indeed, "[i]t is the declared policy of the Congress that the Government should aid, counsel, assist, and protect, insofar as is possible, the interests of small-business concerns in order to preserve free competitive enterprise."
government-funded study found that, compared to large firms, small businesses produce thirteen to fourteen times more patents per employee. Further, because small firms tend to pursue leading-edge technical niches, they contribute more to high-tech advancement than large firms. Many times, small and developing businesses need to build a patent portfolio to attract venture capital, and thus, they live and die by their patents.

Finally, nonprofit organizations, most notably universities and other research institutions, provide society with life-changing technology. The work of nonprofit organizations "merits strong patent protection" because it is "often fundamental to scientific advancement." For example, research institutions such as medical schools often lead the way in developing technology for new drugs and vaccines. Patent licensing enables nonprofit organizations to generate funding for further research and development.


29. *Id.* For example, the study reported that twenty-five percent of patents in biotechnology are from small firms, and those firms account for seventy-one percent of the patenting firms in the biotech industry. *Id.* at 17. Further, nineteen percent of patents in pharmaceuticals are from small firms, which make up sixty-eight percent of the firms in that industry. *Id.*

30. See Association for Competitive Technology, http://www.actonline.org/library/Reform-The-US-Patent-System-Big-Stakes-for-Small-Business.html (last visited Nov. 3, 2007) (explaining that patents serve a vital role in helping innovators to "demonstrate the value of their ideas to investors" and that, without patent protection, "ideas and inventions could be stolen during the initial funding stages, before the product can even be put to market"); see also A Bill "To Amend Title 35, United States Code, to Conform Certain Filing Provisions Within the Patent and Trademark Office". Hearing on H.R. 5120 Before the Subcomm. on Courts, the Internet, and Intellectual Property Comm. on the Judiciary, 109th Cong. 7 (2006) (statement of the Honorable Jon W. Dudas) (discussing the impact that delays in the patent application system have on small and developing businesses in that they may not be able to secure venture capital until issued patents).


II. THE RENEWED STANDARD FOR PERMANENT INJUNCTIONS IN PATENT INFRINGEMENT CASES RESULTS IN COMPULSORY LICENSING

A. The Federal Circuit's "General Rule"

Beginning as early as the start of the 19th century, courts regularly issued permanent injunctions after finding infringement of a valid and enforceable patent.\textsuperscript{35} This practice had its roots in the Constitution and the early understanding of patent rights.\textsuperscript{36} The Constitution grants the power to Congress to "promote the Progress of . . . useful Arts, by securing for limited Times to . . . Inventors the exclusive Right" to their inventions.\textsuperscript{37} From early on, the Supreme Court interpreted this patent grant to entitle patent holders to a "complete monopoly."\textsuperscript{38} The Court of Appeals for the Federal Circuit\textsuperscript{39} adopted the view that the "right to exclude recognized in a patent [was] but the essence of the concept of property."\textsuperscript{40} Accordingly, the Federal Circuit formed a "general

\textsuperscript{35} eBay, 126 S. Ct. at 1841 (Roberts, C.J., concurring).
\textsuperscript{36} See MercExchange, L.L.C. v. eBay, Inc., 401 F.3d 1323, 1338 (Fed. Cir. 2005) (explaining that the preference favoring permanent injunctive relief stems from the property law right to exclude others, which is "but the essence of the concept of property" (citing Richardson, 868 F.2d at 1247)), vacated, 126 S. Ct. 1837 (2006).
\textsuperscript{37} U.S. CONST. art. I, § 8, cl. 8.
\textsuperscript{38} Cont'l Paper Bag Co. v. E. Paper Bag Co., 210 U.S. 405, 423 (1908). This case involved infringement of a patent for an improvement in paper bag machines. \textit{Id.} at 406. The defendant-appellant argued that the Court should not issue a permanent injunction because the plaintiff-appellee had not commercialized the patent and the patent was an "improvement" patent rather than a "pioneer" patent. \textit{Id.} at 415. Notwithstanding the type of patent involved and the non-commercialization of the patent, the Court granted the permanent injunction, holding that "such exclusion may be said to have been the very essence conferred by the patent" and that "it is the privilege of any owner of property to use or not use it." \textit{Id.} at 429 (citing Connolly v. Union Sewer Pipe Co., 184 U.S. 546, 548 (1902)).
\textsuperscript{39} The Federal Circuit was established pursuant to the Federal Courts Improvement Act of 1982, Pub. L. No. 97-164, 96 Stat. 25 (now codified in scattered sections of 28 U.S.C.). MARTIN J. ADELMA\textsc{n} ET AL., CASES AND MATERIALS ON PATENT LAW 16 (2d ed. 2003). The court has national appellate jurisdiction over patent cases, as well as a variety of other cases, and is subject to review by the Supreme Court. \textit{Id.} at 15-16. The Federal Circuit was established to bring uniformity and predictability to patent law by resolving issues such as conflicts among circuits and forum shopping. \textit{Id.}
\textsuperscript{40} MercExchange, 401 F.3d at 1338 (quoting Richardson, 868 F.2d at 1247). The Federal Circuit expressed this view beginning in the 1980s. See, e.g., Smith Intl', 718 F.2d at 1581 (providing that "[t]he very nature of the patent right is the right to exclude others"); Richardson, 868 F.2d at 1246-47 (explaining that after infringement has been established, "it is contrary to the laws of property, of which the patent law partakes, to deny the patentee's right to exclude others from use of his property").
rule” that permanent injunctions should issue against patent infringers, absent exceptional circumstances.

1. The Benefit of the General Rule for Small Entities

The Federal Circuit’s general rule provided all patent holders with leverage when facing an alleged infringer. This leverage stemmed from the virtual certainty that a patent holder would obtain a permanent injunction after winning a finding of infringement. As one might suspect, alleged infringers frequently negotiated for licenses from patent holders, instead of risking a court order imposing a complete bar to their allegedly infringing activity.

This tool proved particularly helpful for small entities. They used the leverage afforded by the Federal Circuit’s general rule to bring large entities to the bargaining table before or during litigation. Due to the high cost of patent infringement litigation,

41. See Richardson, 868 F.2d at 1247 (applying “the general rule that an injunction will issue when infringement has been adjudged, absent a sound reason for denying it”); see also MercExchange, 401 F.3d at 1339 (reversing a district court’s denial of a permanent injunction because the case was not sufficiently exceptional to warrant such a denial).

42. See Rite-Hite Corp. v. Kelley Co., 56 F.3d 1538, 1547 (Fed. Cir. 1995) (explaining that throughout history courts have rarely exercised discretion to deny a permanent injunction to protect the public); see also City of Milwaukee v. Activated Sludge, Inc., 69 F.2d 577, 593 (7th Cir. 1934) (denying injunctive relief where it would have required the city to close a sewage plant, “leaving the entire community without any means for the disposal of raw sewage other than running it into Lake Michigan, thereby polluting its waters and endangering the health and lives of that and other adjoining communities”); Ethicon Endo-Surgery v. U.S. Surgical Corp., 855 F. Supp. 1500, 1517 (S.D. Ohio 1994) (declining to issue an injunction that would have created “a serious disruptive effect on surgical practice” because doctors distinctly preferred the endoscopic surgical cutters at issue and had trained with them extensively).

43. See Smith Int’l, 718 F.2d at 1578 (emphasizing the high value of permanent injunctions to patent holders). Without permanent injunctions, patent owner[s] would lack much of the “leverage,” afforded by the right to exclude, to enjoy the full value of [their] invention in the market place. Without the right to obtain an injunction, the right to exclude granted to the patentee would have only a fraction of the value it was intended to have, and would no longer be as great an incentive to engage in the toils of scientific and technological research.

Id.

44. See id. at 1581 (holding that “immediate irreparable harm is presumed” once patent rights and continuing infringement are established).

45. See Farrand, supra note 13, at 2 (explaining that “litigation [was] more dangerous for accused infringers, and patent-holder plaintiffs enjoyed improved prospects for substantial recoveries via settlements or judgments”).

46. See Thomas, supra note 11, at 729 (commenting that permanent injunctions are “perhaps the best leverage that a small-entity inventor has over a large corporate defendant”).

47. Id.

48. See AM. INTELL. PROP. LAW ASS’N, 2007 REPORT OF THE ECONOMIC
many small entities would not have been able to protect their patent rights without the leverage provided by permanent injunctions.49

2. Circumstances Leading to eBay: Exploitation of the General Rule by “Patent Trolls”

“An industry has developed in which firms use patents not as a basis for producing and selling goods but, instead, primarily for obtaining licensing fees,” and these small entities are pejoratively referred to as “patent trolls.”50 The definition of “patent troll” proves rather elusive,52 but trolls are generally known as small entities that enforce patents as a primary or sole method of producing revenue, rather than selling or producing products.53 Patent trolls are criticized for using the threat of permanent injunctions to extract exorbitant licensing fees.54 Many critics

49. See Thomas, supra note 11, at 729 (arguing that the threat of injunctive relief provided small entities with the greatest leverage against large corporate defendants).

50. eBay, 126 S. Ct. at 1842 (Kennedy, J., concurring).

51. See Terrence P. McMahon et al., Who Is a Troll? Not a Simple Answer, 7 SEDONA CONF. J. 159, 160-66 (2006) (discussing the debate over the definition of “patent troll”). Peter Detkin coined the term “patent troll” in 1999 while defending a patent infringement lawsuit as assistant counsel at Intel Corp. Id. at 159. He described patent trolls as “somebody who tries to make a lot of money off a patent that they are not practicing and have no intention of practicing and in most cases never practiced.” Id. Ironically, Mr. Detkin has since left Intel to join Intellectual Ventures, a “patent troll” by his very own definition. Id.

52. See id. at 160-66 (surveying the various types of entities criticized as patent trolls and proposing a definition for “patent troll”). The most highly criticized entities are those that do not produce or sell any products, but instead invest in patents and generate income by enforcing them. Id. The second most criticized entities are those that represent inventors that want to license their patents. Id. at 162. Next, are technology investment and management firms that mainly help universities and other research institutions enforce their patents. Id. Entities that conduct their own research and development and license their patents themselves are also accused of being patent trolls. Id. at 162-63. Finally, some accused trolls are companies that practice their patents by producing or selling products but also license many of their patents. Id. at 163.

53. See id. at 159 (explaining the general concept of “patent trolls”).

54. Steve Seidenberg, Troll Control: The Supreme Court’s eBay Decision Sets Back Pesky ‘Patent Trolls’ or American Innovation, Depending Upon Which Side You’re On, 92 A.B.A.J. 51 (2006). When faced with the possibility that a permanent injunction would stop business production, many accused infringers have agreed to pay licensing fees rather than litigate the merits of their case. Farrand, supra note 13, at 3.
accuse patent trolls of wielding overly broad patents, which allegedly should not have been issued. Further, patent trolls are criticized as a detriment to technological advancement because companies spend large amounts of money fending off trolls rather than investing that money in further research and development of new technology.

The patent troll phenomenon took center stage in 2005 during a patent infringement battle regarding Research in Motion’s (“RIM”) well-known BlackBerry wireless communication devices. The dispute began in 2000, when NTP, a firm built solely around enforcing its patent portfolio, sent RIM a letter seeking licensing fees. RIM balked at negotiating for a license and instead engaged in litigation. After a district court trial, an appeal to the Federal Circuit, and a remand to the district court, the parties finally agreed to a $612.5 million settlement, ending the four-year dispute, which could have alternatively ended in a permanent injunction against RIM.

55. See MercExchange, L.L.C. v. eBay, Inc., 275 F. Supp. 2d 695, 713-14 (E.D. Va. 2003) (addressing eBay’s argument regarding broad business method patents and noting that the PTO has implemented a second level of review for such patents to combat these problems), aff’d in part, rev’d in part, 401 F.3d 1323 (Fed. Cir. 2005), vacated, 126 S. Ct. 1837 (2006); see also Eddings, supra note 2, at 506-07 (outlining factors that critics blame for vague or overly-broad patents, such as patent examiner bonuses based upon the number of patents granted per year, the resulting high patent issuance rates and explosion in the number of business method patents granted).

56. Seidenberg, supra note 54, at 51.

57. See Anne Marie Cox, Me and My Everything, WASH. POST, Mar. 5, 2006, at B01 (discussing the major concern of the BlackBerry-using public that their wireless devices would be shut off if a permanent injunction issued against RIM).


59. See Mike Hughlett, BlackBerry Suit Settled; $612.5 Million Deal Keeps Network Active, CHI. TRIB., Mar. 4, 2006, at C1 (explaining that NTP was created to hold and protect the patents of lifelong inventor Thomas Campana, Jr.).

60. Yang, supra note 58.

61. Id.


63. NTP, Inc. v. Research in Motion, Ltd., 418 F.3d 1282 (Fed. Cir. 2005).

64. NTP, Inc. v. Research in Motion, Ltd., 397 F. Supp. 2d 785, 785 (E.D. Va. 2005).


66. See Hughlett, supra note 59 (noting that the judge presiding over the appeal was upset with both parties and indicated that “neither might be happy if he had to settle their quarrel”).
A permanent injunction would have shut off BlackBerry service to 3.2 million users nation-wide, including the White House staff. A permanent injunction would have shut off BlackBerry service to 3.2 million users nation-wide, including the White House staff. The potential BlackBerry blackout would have also affected Congress, which had recently spent nearly six million dollars to purchase three thousand BlackBerry devices and service plans for its members. In fact, the Chief Administrative Officer of the House of Representatives sent counsel for each side of the dispute a letter encouraging settlement so that BlackBerry service would continue uninterrupted.

RIM, as well as many critics, exclaimed that the BlackBerry dispute was yet another example of how the Federal Circuit's general rule created undue leverage for patent trolls in infringement disputes. Because the Supreme Court is concerned with the "careful balance" upon which the patent system is based, the BlackBerry dispute likely caught its attention. Indeed, the Court thought the imbalance was serious enough to take the problem into its own hands by hearing eBay.

B. eBay, Inc. v. MercExchange, L.L.C.: The Supreme Court Renews the Traditional Four-Factor Test in Patent Cases

MercExchange, a small technology and online auction company, originally filed suit against eBay and Half.com, a wholly

69. Id.
70. See, e.g., eBay, 126 S. Ct. at 1842 (Kennedy, J., concurring) (noting that firms that focus on generating revenue solely by licensing patents use injunctions as "a bargaining tool to charge exorbitant fees" and that such firms may use injunctions "simply for undue leverage in negotiations"); Decker & Barr, supra note 65, at 2 ("A settlement [was] the only way to make NTP go away." (quoting analyst Richard Williams)); Bara Vaida, What's Washington's Latest PR Trend? It's Pitching Reporters on Supreme Court Cases, NAT'L J., Oct. 21, 2006, at Lobbying and Law (explaining that Mark Corallo, a former Justice Department spokesman, was hired by companies such as Apple Computer and Intel to generate publicity around eBay and expose MercExchange as a patent troll).
71. Bonito Boats, Inc. v. Thunder Craft Boats, Inc., 489 U.S. 141, 146 (1989). In a recent dissenting opinion, Justice Breyer noted that "a decision from this generalist Court could contribute to the important ongoing debate, among both specialists and generalists, as to whether the patent system, as currently administered and enforced, adequately reflects the 'careful balance' that 'the federal patent laws... embed[y]." Lab. Corp. of Am. Holdings v. Metabolite Labs., Inc., 126 S. Ct. 2921, 2929 (2006) (quoting Bonito Boats, 489 U.S. at 146).
72. See Farrand, supra note 13, at 3-4 (analyzing eBay as one of the many recent cases in which the Supreme Court took up "patent reform" where Congress failed to act); Eddings, supra note 2, at 503-04 (explaining that critics labeled MercExchange, a non-practicing entity, as a patent troll).
owned subsidiary of eBay, for infringement of various patents, including a business method patent covering a type of electronic market. A jury found that eBay and Half.com had willfully infringed several of the patent claims at issue. However, the district court refused to grant MercExchange a permanent injunction. On appeal, the Federal Circuit applied its “general rule” and reversed the case because it failed to present special circumstances that warranted denial of an injunction. The Supreme Court granted certiorari to determine the proper test for deciding whether to grant permanent injunctions in cases arising under the Patent Act.

The Supreme Court held that in patent disputes, no less than in any other cases governed by equity standards, courts must exercise discretion “consistent with traditional principles of equity.” The Court pointed to the specific wording of the Patent Act that dictates, “courts having jurisdiction of cases under [the] title may grant injunctions in accordance with the principles of equity to prevent the violation of any right secured by patent, on such terms as the court deems reasonable.” Pursuant to eBay, a party must demonstrate the following four factors before a court may issue a permanent injunction in a patent infringement case:

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.

The Court overturned the Federal Circuit's general rule because it was an improper “categorical rule” that departed from “the traditional four-factor framework that governs the award of injunctive relief.”

73. eBay, 126 S. Ct. at 1839.
74. Id.
77. MercExchange, 401 F.3d at 1339-40.
79. eBay, 126 S. Ct. at 1841.
81. Id. § 283 (emphasis added).
82. eBay, 126 S. Ct. at 1839.
83. Id. at 1841. According to the Court, “traditional equitable principles do
C. Compulsory Licensing After eBay

In eBay, the Supreme Court did not discuss what remedy courts should award patent holders if the four-factor test favors denying a permanent injunction, but courts have long recognized such a remedy as a "compulsory license." In general, compulsory licenses are court-imposed licenses that authorize adjudged infringers to continue their conduct in exchange for payments of reasonable royalties. Historically, American patent law vehemently opposed compulsory licensing, and some opponents have argued that compulsory licensing is unconstitutional. However, with the Federal Circuit's general rule no longer in place, compulsory licensing is a modern-day reality.

For example, one district court ordered a defendant to file continuing reports documenting the number of infringing products sold post-
verdict so that the plaintiff patent holder could collect continued monetary damages.\textsuperscript{90}

The Federal Circuit has explained that courts should award an "ongoing royalty" only where "necessary," not as a matter of course.\textsuperscript{91} When courts deny a permanent injunction, they "may... allow the parties to negotiate a license amongst themselves," and if the parties fail to come to an agreement, "step in to assess a reasonable royalty in light of the ongoing infringement."\textsuperscript{92}

III. \textit{eBay}'s Adverse Consequences for Legitimate Small Entities

The Supreme Court's holding in \textit{eBay} should provide lower courts with a useful tool to decrease the leverage of patent trolls and to further the careful balance that the patent system seeks to achieve.\textsuperscript{93} However, the Court's decision presents a myriad of challenges for legitimate small entities,\textsuperscript{94} and the American economy cannot afford to sacrifice the livelihood of legitimate small entities while fending off patent trolls.\textsuperscript{95}

A. eBay: Fertile Ground for Lower-Court Interpretation that Endangers Legitimate Small Entities

The Supreme Court's \textit{unanimous} decision in \textit{eBay} may seem quite simple: Courts must apply the traditional four-factor test when determining whether to issue a permanent injunction after finding infringement of a valid and enforceable patent.\textsuperscript{96} Application of the four-factor test, however, becomes less clear in light of the Court's two concurring opinions.\textsuperscript{97}

Chief Justice Roberts, joined by Justices Scalia and Ginsburg, proposed that the four-factor test should generally produce the same outcome as the Federal Circuit's general rule.\textsuperscript{98} Chief Justice

\textsuperscript{90} z4 Techs., 434 F. Supp. 2d at 444.
\textsuperscript{91} Paice LLC v. Toyota Motor Corp., 504 F.3d 1293, 1314-15 (Fed. Cir. 2007).
\textsuperscript{92} \textit{Id.} at 1315.
\textsuperscript{93} Seidenberg, \textit{supra} note 54, at 52.
\textsuperscript{94} In the words of Richard Lang, co-founder and CEO of Burst.com, "[l]arge companies may wind up destroying the system that provides innovation." \textit{Id.} at 55.
\textsuperscript{95} See \textit{id.} at 52 (noting that the increased difficulty in gaining permanent injunctions may not only cripple patent trolls but American technological advancement in general).
\textsuperscript{96} \textit{eBay}, 126 S. Ct. at 1841.
\textsuperscript{97} See Seidenberg, \textit{supra} note 54, at 53-54 (discussing the split among the Court regarding application of the four-factor test); \textit{see also} David L. McCombs & Phillip B. Phibin, Comment, \textit{Annual Survey of Texas Law: Intellectual Property Law}, 59 SMU L. Rev. 1409, 1411-12 (2006) (analyzing the disagreement among the Justices as to application of the four-factor test).
\textsuperscript{98} See \textit{eBay}, 126 S. Ct. at 1841-42 (Roberts, C.J., concurring) (stating that "a page of history is worth a volume of logic." (quoting N.Y. Trust Co. v.
Roberts stressed the “difficulty of protecting a right to exclude through monetary remedies that allow an infringer to use an invention against the patentee’s wishes.”99 Further, Justice Roberts instructed lower courts not to “write[] on an entirely clean slate”100 because “like cases should be decided alike.”

Justice Kennedy, joined by Justices Stevens, Souter, and Breyer, agreed that “history may be instructive when applying [the four-factor] test,” but he stressed certain modern-day circumstances when denial of permanent injunctions may be appropriate.102 According to Justice Kennedy, courts should consider denying permanent injunctions when (1) the patents involved are “employed as a bargaining tool to charge exorbitant fees to companies that seek to buy licenses to practice the patent,”103 (2) “the patented invention is but a small component of the product the [infringing] companies seek to produce,”104 or (3) the case involves infringement of a business method patent because of their “potential vagueness and suspect validity.”105

The Supreme Court’s divergent views evident in eBay’s two concurrences provided lower courts with an opportunity to determine how to apply the four-factor test.106 Initial predictions indicated that eBay would not change the outcome of most patent infringement cases.107 Analysts forecasted that eBay would have minimal effect on cases in which plaintiff patent holders “produce or sell the product(s) covered by the relevant patent (or are preparing to do so) and use the patent to seek investors or to build

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99. Id. at 1841.
100. Id.
101. Id. at 1842.
102. See id. (Kennedy, J., concurring) (“In cases now arising trial courts should bear in mind that in many instances the nature of the patent being enforced and the economic function of the patent holder present considerations quite unlike earlier cases.”) Justice Kennedy explained that courts issued permanent injunctions at high rates in the past according to the application of the four-factor test to the circumstances at that time. Id.
103. Id.
104. Id.
105. Id. Justice Kennedy's concern with the “potential vagueness and suspect validity” of business method patents, id., appears misplaced regarding determinations of whether to issue permanent injunctions because such determinations occur after definiteness and validity have been upheld at trial. Further, Justice Kennedy's concern is inconsistent with the Patent Act's requirement that “[a] patent shall be presumed valid.” 35 U.S.C. § 282 (2000).
106. See Seidenberg, supra note 54, at 53 (discussing the split among the Court and claiming that the impact eBay has on patent infringement damages depends on lower court interpretation of the eBay holding).
107. See, e.g., id. at 55 (forecasting that eBay “will change the result in some cases, but not in most” (quoting E. Anthony Figg, the immediate-past chair of the ABA’s Section of Intellectual Property Law)).
their business and market share.\textsuperscript{108} On the other hand, they estimated that courts would most likely deny permanent injunctions in controversial patent cases, such as "suits brought by classic patent trolls."\textsuperscript{109}

One might believe that injunctive relief would remain available to legitimate small entities, especially because the Supreme Court directed courts not to categorically deny permanent injunctions to "university researchers or self-made inventors."\textsuperscript{110} However, a dangerous trend has developed: "In almost every case in which a court denied a permanent injunction for patent infringement the patent owner was a non-practicing entity."\textsuperscript{111} In other words, district courts interpreting and applying eBay have "systematically denied requests for injunctions" of parties that "did not practice their patent[ed] invention."\textsuperscript{112} Although one district court granted a permanent injunction to a non-practicing entity, the non-practicing entity had an unusually strong argument for a permanent injunction: It was the Commonwealth Scientific and Industrial Research Organisation — the principal scientific research organization of the Australian Federal Government.\textsuperscript{113} This trend endangers legitimate small

\begin{footnotes}
\item[108] Farrand, supra note 13, at 4; see also Seidenberg, supra note 54, at 55 (noting that courts will grant injunctions in the "vast majority of patent infringement cases" even after eBay).
\item[109] Farrand, supra note 13, at 4; see also Seidenberg, supra note 54, at 55 (calculating that courts will deny permanent injunctions in "suits brought by companies whose primary business is licensing their patents").
\item[110] eBay, 126 S. Ct. at 1840.
\item[112] Jonathan Muenkel & Eric Lee, The eBay Effect: Real Change or Status Quo? An Examination of Requests for Injunctive Relief in Patent Actions Since eBay v. MercExchange, 25 IPL NEWSLETTER, Fall 2006, at 20. Muenkel and Lee documented the outcomes of the first thirteen district court cases concerning a request for a permanent injunction, and the authors concluded that "the legal landscape concerning injunctive relief in patent cases has changed following eBay." Id.
\item[113] Commonwealth Scientific, 492 F. Supp. 2d at 601. The court thoroughly detailed CSIRO's background:

CSIRO is the principal scientific research organization of the Australian Federal Government. Established in 1926, CSIRO conducts scientific research and applies the efforts of that research to benefit the public at large. CSIRO is similar to the United States' National Science
\end{footnotes}
entities – which may not practice their patented inventions but seek to enforce their patents for valid reasons – because courts may perceive them as patent trolls and thus deny them permanent injunctive relief.\textsuperscript{114} Indeed, large company defendants generally advocate Justice Kennedy's view and tailor the amorphous\textsuperscript{115} definition of "patent troll" to "smear" essentially every small entity that brings a patent infringement suit.\textsuperscript{116}

B. eBay Grants Large Companies a "License" to Willfully Abuse the Patent Rights of Legitimate Small Entities

Justice Kennedy's guidelines\textsuperscript{117} may prove helpful for combating patent troll exploitation of the patent system, but the tool effectively grants large companies a "license" to willfully steal patented technology.\textsuperscript{118} If infringing large companies meet the factors Justice Kennedy recites, legitimate small entities face a difficult battle to win a permanent injunction because Justice Kennedy's guidelines, endorsed by four Supreme Court Justices,\textsuperscript{119} provide lower courts with multiple avenues to rationalize denying permanent injunctions to legitimate small entities.\textsuperscript{120}

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\textit{Foundation and National Institute of Health}. CSIRO has a broad charter to advance health, prosperity, and welfare by conducting strategic scientific research and applying the results of that research to benefit Australia and people everywhere. CSIRO operates its own laboratories and is active in the areas of health, agriculture, energy, information technology, minerals, manufacturing, marine and terrestrial environments, and natural resources. One of CSIRO's broad goals is to develop technology that can be used to create start-up companies and/or be licensed to firms to earn commercial royalties to fund other research.

\textit{Id.}

\textsuperscript{114}. \textit{See supra} note 112 and accompanying text (describing the sweeping effects of eBay). Muenkel and Lee speculated whether "a 'patent troll' [could] ever receive injunctive relief in the post-eBay world." Muenkel & Lee, supra note 112, at 20. This leaves one to wonder whether a legitimate small entity will be able to obtain injunctive relief when a large company smears them as a "patent troll" during litigation.

\textsuperscript{115}. \textit{See supra} note 52 and accompanying text (surveying the various types of entities criticized as patent trolls).

\textsuperscript{116}. Seidenberg, supra note 54, at 53. Richard Lang, co-founder and CEO of Burst.com, argues that large companies created the term "patent troll" to incorporate all small entities that "try to protect their legal rights in their inventions." \textit{Id.} According to Lang, large companies "want IP to be immensely valuable when they own it, but worthless when a small company owns it." \textit{Id.}

\textsuperscript{117}. \textit{See supra} text accompanying notes 93-95 (identifying several situations where courts should consider denying permanent injunctions).

\textsuperscript{118}. \textit{See} Seidenberg, supra note 54, at 51 (explaining that very few small businesses enjoy the resources to protect their patent rights in court, so large companies take the technology for free).

\textsuperscript{119}. \textit{See supra} text accompanying notes 102-03.

\textsuperscript{120}. \textit{See} Seidenberg, supra note 54, at 52 ("The effect would be to kill small
For example, in Voda v. Cordis Corp., Dr. Jan K. Voda sued Cordis for infringing his patents covering an angioplasty guide catheter.\textsuperscript{21} Not only did the jury find that Cordis infringed Dr. Voda's patents, but it also found that Cordis infringed willfully.\textsuperscript{22} Although the court considered Cordis' willfulness when determining whether to award enhanced damages, its willfulness appeared to play no role in the court's four-factor permanent injunction analysis.\textsuperscript{123} The court denied Dr. Voda a permanent injunction because he could not show irreparable harm or an inadequacy of monetary relief.\textsuperscript{124} Dr. Voda had granted Scimed, a medical device company, an exclusive license for his patents.\textsuperscript{125} The court reasoned that Dr. Voda "relied on alleged harm to a non-party, Scimed," which opted not to join the lawsuit.\textsuperscript{126} Thus, primarily because Dr. Voda did not practice his patented invention, the district court denied him a permanent injunction, notwithstanding the Supreme Court's direction that injunctive relief should remain open to "researchers [and] self-made inventors, [who] might reasonably prefer to license their patents, rather than . . . bring their works to the market themselves."\textsuperscript{127}

In z4 Technologies, Inc. v. Microsoft Corp.,\textsuperscript{128} another district court demonstrated that eBay can be "bad news to small inventors."\textsuperscript{129} z4 Technologies, a small software company,\textsuperscript{130} sued Microsoft for infringement of patents addressing "product
activation" software, which limited unauthorized use of computer software. The jury found that Microsoft willfully infringed z4 Technologies' patents, but the court apparently did not consider the willfulness finding in denying z4 Technologies' request for a permanent injunction. The court reasoned, as Justice Kennedy instructed, that z4 Technologies' product activation technology was but a small component of Microsoft's Windows and Office software. Further, an injunction would cost Microsoft enormous resources and expense because it would have to re-engineer, test, repackage, and ship new software. Finally, the court recognized Microsoft's software was the most popular in the world and did not wish to subject the global public to problems such as pirated versions of software, viruses, and other security breaches.

In essence, Voda, z4 Technologies, and Justice Kennedy's guidelines combine to provide large companies with a general checklist for avoiding permanent injunctions when infringing a legitimate small entity's patents. Regardless of a willful infringement finding, large companies can potentially avoid a permanent injunction if: (1) the patent holder does not practice its patented invention; (2) the infringing component is a small part of the infringer's overall product; (3) the infringer's product is

131. z4 Techs., 434 F. Supp. 2d at 438.
132. Id.
133. Id. at 439-45. The court merely noted in its recitation of the background facts that the jury "found Microsoft's infringement was willful." Id. at 438.
134. Id. at 441.
135. Id. at 442.
136. Id. at 443-44.
137. z4 Technologies may be an extreme example considering that Microsoft plays such a dominant role in providing the world with computer software, but the case demonstrates the challenges legitimate small entities may face post eBay.

138. See Beckerman-Rodau, supra note 111, at 656 (explaining that following eBay, "willful infringement does not appear to be a significant factor in predicting or explaining judicial decisions that grant or deny permanent injunctions"). For example, despite the defendant's willful infringement in Voda, the court denied Dr. Voda a permanent injunction. 2006 U.S. Dist. LEXIS 63623, at *6-13, *17-20. Similarly, Microsoft willfully infringed in z4 Technologies, yet the court denied z4 Technologies a permanent injunction. 434 F. Supp. 2d at 439-45.

139. To be sure, the Supreme Court instructed injunctive relief should remain open to "researchers [and] self-made inventors, [who] might reasonably prefer to license their patents, rather than ... bring their works to the market themselves." eBay, 126 S. Ct. at 1840. However, in almost all of the first twenty-eight district court cases after eBay, including Voda, the parties denied injunctions did not practice their patented inventions. Beckerman-Rodau, supra note 111, at 653-55.
140. In z4 Technologies, the court denied z4 Technologies a permanent injunction partially because its patented product activation technology was but a small component of Microsoft's Windows and Office software. 434 F.
mass-produced; (4) its product is widely used; (5) its product infringes a business method patent; or (6) the patent holder seeks to enforce its patent rights by negotiating for a license. Moreover, both Cordis and Microsoft willfully infringed before eBay during the tenure of the Federal Circuit's general rule, which constituted a much lower bar for patent holders seeking permanent injunctions. Now that patent holders face a higher


141. For example, in denying z4 Technologies' request for a permanent injunction, the court reasoned that an injunction would cost Microsoft enormous resources and expense because it would have to re-engineer, test, repackage and ship new software. z4 Techs., 434 F. Supp. 2d at 442.

142. For example, the court in z4 Technologies recognized Microsoft's software as the most popular in the world and denied permanent injunctive relief partially because it could subject the global public to problems such as pirated versions of software, viruses, and other security breaches. Id. at 443-44.

143. Justice Kennedy specifically warned against issuing permanent injunctions in cases involving business method patents because of their "potential vagueness and suspect validity." eBay, 126 S. Ct. at 1842 (Kennedy, J., concurring). On remand, the district court heeded Justice Kennedy's instruction in denying MercExchange's renewed request for a permanent injunction:

[T]he '265 patent is... a business method patent..., and although such patent is presently valid and enforceable, the nature of the patent causes the court pause because, as previously recognized by this court, "there is a growing concern over the issuance of business-method patents which forced the PTO to implement a second level review policy."

MercExchange, 500 F. Supp. 2d at 574 (quoting MercExchange, 275 F. Supp. 2d at 713).

144. See supra text accompanying note 103 (noting this guideline from Justice Kennedy's concurrence). The majority opinion in eBay directed courts not to categorically deny a plaintiff permanent injunctive relief based upon its "willingness to license its patents" and "its lack of commercial activity in practicing the patents." eBay, 126 S. Ct. at 1840. Notwithstanding this instruction, some courts continue to place heavy emphasis on a plaintiff's willingness to license in denying permanent injunctions. For example, one court reasoned, "[i]n fact, [plaintiff] licenses [its patent] to others, and offered to license it to [defendant] prior to filing suit against it, thus demonstrating that money damages are adequate." Sundance, Inc. v. DeMonte Fabricating Ltd., No. 02-73543, 2007 WL 37742, at *2 (E.D. Mich. Jan. 4, 2007).

145. The Voda trial began on May 15, 2006, the same day the Supreme Court issued its eBay decision. Voda, 2006 U.S. Dist. LEXIS 63623, at *2; eBay, 126 S. Ct. at 1837. And the z4 Technologies trial began on April 10, 2006. 434 F. Supp. 2d at 438.

146. See Seidenberg, supra note 54, at 52 (noting that "the eBay case replaced [the Federal Circuit's general rule] with the traditional – more stringent – standard for issuing injunctions").
bar to obtain permanent injunctions, how reluctant will large companies be to abuse patent rights of legitimate small entities by willfully infringing? ¹⁴⁷

C. The Resulting Financial Inability of Legitimate Small Entities to Protect Their Patent Rights

Although eBay provides courts with a useful tool for decreasing the impact of patent trolls,¹⁴⁸ it presents dire consequences for legitimate small entities by greatly weakening their already-diminished¹⁴⁹ ability to protect their patent rights.¹⁵⁰ The effect of eBay is clear: Permanent injunctions are now subject to a higher standard.¹⁵¹ To obtain a permanent injunction, patentees must not only establish infringement but also battle to win the four-factor test.¹⁵² Litigation of the four factors will render patent infringement suits more expensive and uncertain.¹⁵³ One might argue that although legitimate small entities are no longer guaranteed permanent injunctions, compulsory licenses may

¹⁴⁷. Large companies stealing patented technology from small inventors was not "news" even before eBay. Ellen Paris, David v. Goliath: Inventors Invent. Big Companies Steal. And You Can't Fight It Because You Don't Have The Money to Win – Or Can You?, ENTREPRENEUR MAG., Nov. 1999, available at http://www.entrepreneur.com/magazine/entrepreneur/1999/november/18480.htm. For example, inventor Ron Chasteen was surprised to see his patented fuel-injection technology incorporated in a Polaris snowmobile not long after he approached Polaris with the technology and was unsuccessful in negotiating a licensing deal. Id. Chasteen successfully sued Polaris, but only after he spent many years and a lot of money to find a law firm that would take his case upon a contingent-fee basis. Id. One can only wonder if Chasteen's case would have been successful post eBay, or if a law firm would have even accepted his case. See Thomas, supra note 11, at 737 (noting that, in cases involving reduced returns, small entities have difficulty securing counsel because "contingent-fee attorneys will be less willing to accept marginal cases").

¹⁴⁸. See supra text accompanying notes 50-56 (defining patent trolls as entities that enforce patents as their main source of revenue).

¹⁴⁹. See Amy L. Magas, Comment, When Politics Interfere with Patent Reexamination, 4 J. MARSHALL REV. INTELL. PROP. L. 160, 173 (2004) (explaining, before eBay, that "[s]mall inventors face substantial hurdles when bringing an enforcement action against a giant corporation"). Specifically, small inventors "lack the financial resources necessary to compete with a large corporation," and, even if a small inventor is able to obtain a settlement or injunction against a large corporation, that corporation "can in turn force [the small inventor] into reexaminations that can take several years to complete (not including the cost and time if there is an appeal)." Id.

¹⁵⁰. See Seidenberg, supra note 54, at 52 (arguing that "companies can steal their inventions with impunity" (quoting Richard Lang, co-founder and CEO of Burst.com)).

¹⁵¹. Seidenberg, supra note 54, at 55.

¹⁵². eBay, 126 S. Ct. at 1839.

¹⁵³. See supra note 48 and accompanying text (discussing the cost of infringement suits).
constitute a sufficient remedy in most cases. However, the less-obvious dilemma is that most legitimate small entities do not possess the financial capacity necessary to obtain compulsory licenses when facing large infringers.

eBay provides large companies with an incentive to adopt the litigation-oriented view of "heads-I-win, tails-you-lose" against legitimate small entities because they are now much less likely to win permanent injunctions or even pursue litigation. Large company defendants that in the past negotiated for licenses in the face of a permanent injunction may now proceed with litigation. Legitimate small entities will be forced to either cut their losses by surrendering their patented technology or risk having infringers drown them in high litigation costs. Indeed, large companies will face the same high litigation costs, including potential liability for enhanced damages and attorney fees, but when compared to the benefit of staying abreast of cutting-edge technology and being the first to market, their bottom lines will most likely dictate that such costs are acceptable. The inevitable result is that many legitimate small entities will lose the ability to protect their patented technology, which may cause them to lose the incentive to obtain patents or even to continue inventing.

154. See Commonwealth Scientific, 492 F. Supp. 2d at 606 (noting that if injunctions are not issued, defendants become compulsory licensees).
155. See Paris, supra note 147 (explaining that individual inventors “don’t have deep enough pockets to pay for protracted and expensive legal battles” and that to obtain legal representation they must convince a law firm to accept their case on a contingent-fee basis).
156. Panduit, 575 F.2d at 1158. In other words, “[a]n accused infringer may choose to litigate rather than accept a high-royalty license, knowing the worst case scenario is money damages - not business interruption.” Hasley & Gandhi, supra note 127, at 48.
157. See supra Parts III.A-B (explaining lower courts may have many means to deny permanent injunctions to legitimate small entities). Moreover, a patent holder may not pursue litigation because “[i]t may see little upside in expending the cost of litigation, only to end up with a compulsory license.” Hasley & Gandhi, supra note 127, at 48.
158. See Seidenberg, supra note 54, at 55 (arguing that “[t]his will embolden more people to take intellectual property, knowing that the worst-case scenario is having to write a check” (quoting Paul Ryan, chairman and CEO of Acacia Research Corp.)).
159. See supra note 48 and accompanying text (referencing the high cost of patent infringement suits).
160. See Mathis v. Spears, 857 F.2d 749, 754 (Fed. Cir. 1988) (providing that “increased damages ... and attorney fees ... are available as deterrents to blatant, blind, willful infringement of valid patents”).
161. See Nathan Myhrvold, Inventors Have Rights, Too!, WALL ST. J., Mar. 30, 2006, at A14 (explaining that patent infringement litigation for large companies is a “distraction that might hurt time to market” and that “[t]heir strategy is simple – damn the torpedoes, full speed ahead”).
162. See Diessel, supra note 111, at 342 (noting that “self-made inventors” will likely place a particularly low value on their patents and
IV. THE ESSENTIAL ROLE OF WILLFUL INFRINGEMENT IN THE FOUR-FACTOR PERMANENT INJUNCTION ANALYSIS

Achieving a careful balance between the patent system's dual goals of protecting patent rights and facilitating efficient, rapid development of technology presents a difficult challenge. The Supreme Court in eBay sought to correct an imbalance in the patent system resulting from the undue leverage of patent trolls. Although eBay provides lower courts with a valuable tool to combat patent trolls, it greatly endangers the livelihood of legitimate small entities. As explained above, eBay not only opens the door for large companies to abuse the patent rights of legitimate small entities, but also provides incentives for such conduct. One of the more troubling trends post eBay is that "willful infringement does not appear to be a significant factor in predicting or explaining judicial decisions that grant or deny permanent injunctions." This Comment proposes that willful infringement must play a prominent role in determining whether to issue a permanent injunction pursuant to the four-factor test, especially when legitimate small entities face large infringers.

For legitimate small entities to command respect from large companies, they must have a possibility of obtaining permanent

will have especially low incentives to innovate" because "damages may systematically undervalue the reasonable royalty that [they are] entitled to for future infringement"; Seidenberg, supra note 54, at 52 (noting that if small entities do not have permanent injunctions to protect their patent rights, "[the effect would be to kill small inventors"") (quoting Richard Lang)).

163. See Lab. Corp. of Am. Holdings, 126 S. Ct. at 2922 (Breyer, J., dissenting) (recognizing that patent law strives to avoid "the dangers of overprotection" as well as the "diminished incentive to invent that underprotection can threaten"). According to Justice Breyer, sometimes the presence of patents can impede "the free exchange of information, for example by forcing researchers to avoid the use of potentially patented ideas, by leading them to conduct costly and time-consuming searches of existing or pending patents, by requiring complex licensing agreements, and by raising the costs of using the patented information." Id.

164. See supra notes 7-8 and accompanying text.

165. See supra Part III (discussing eBay's adverse consequences for legitimate small entities).

166. See id.

167. Beckerman-Rodau, supra note 111, at 656 (arriving at this conclusion after analyzing the first twenty-eight district court cases applying eBay).

Of the thirteen cases in which the court found willful infringement permanent injunctions were granted in nine cases and denied in four cases. Moreover, in the fifteen cases in which the [sic] there was no finding of willful infringement a permanent injunction was granted in thirteen cases and denied in two cases.

Id.; see also Diessel, supra note 111, at 317 (analyzing the first twenty-five district court cases applying eBay, and concluding "[w]hether infringement was willful d[id] not bear on whether a plaintiff obtain[ed] an injunction").
injunctions. Perhaps under some circumstances, as Justice Kennedy suggested, permanent injunctions may be inappropriate, such as when a firm threatens a permanent injunction to extract exorbitant licensing fees. Indeed, this was the ultimate outcome for MercExchange because the district court on remand denied its request for a permanent injunction in large part because “MercExchange appear[ed] to exist solely to license its patents to established internet companies that either infringe[d] or [were] fearful of litigation if they potentially infringe[d].” However, when a large company willfully infringes a legitimate small entity’s patent rights, a permanent injunction is more likely warranted. In eBay, the Supreme Court directed lower courts to exercise discretion “consistent with traditional principles of equity” when determining whether to issue a permanent injunction. Willfulness is traditionally considered in cases of equity. Therefore, according to a literal reading of the Court’s holding, district courts should consider willfulness when determining whether to issue a permanent injunction in patent infringement cases. Because the Supreme Court directed lower courts to apply the traditional four-factor test, the remaining issue is which factors properly incorporate willful infringement. After eBay, district courts have considered willful infringement relevant under all four factors. For example, one court reasoned that a defendant’s six

168. See supra text accompanying notes 46-49 (recognizing that permanent injunctions are important for protecting small entities).
169. eBay, 126 S. Ct. at 1841 (Kennedy, J., concurring).
170. MercExchange, 500 F. Supp. 2d at 584.
171. See, e.g., Wald, 2006 U.S. Dist. LEXIS 51669, at *16 (awarding a permanent injunction based in part upon the defendant’s willful infringement).
172. eBay, 126 S. Ct. at 1841.
173. Precision Instrument Mfg. Co. v. Auto. Maint. Mach. Co., 324 U.S. 806, 815 (1945); see also Beckerman-Rodau, supra note 111, at 656 (noting that “[w]illful infringement, arguably, should be relevant when the remedy being sought, such as permanent injunctive relief, is equitable in nature”); Diessel, supra note 111, at 317 (explaining that “historically willfulness has weighed heavily on the decision to grant an injunction”).
174. At least one district court has held that “[a] willful infringer which seeks to profit by copying from others’ creative ideas should not be heard to complain that its interests will be disturbed by an injunction.” E.F. Johnson Co. v. Uniden Corp. of Am., 623 F. Supp. 1485, 1504 (D. Minn. 1985).
175. eBay, 126 S. Ct. at 1839.
176. The district court on remand analyzed eBay's willful infringement under all four factors, although the court ultimately denied MercExchange's request for a permanent injunction. MercExchange, 500 F. Supp. 2d at 591. When considering irreparable harm, the court stated, “eBay's status as . . . a willful infringer of MercExchange's . . . patent weigh[ed] in MercExchange's favor.” Id. at 569-70. Nonetheless, MercExchange could not establish
years of willful infringement "support[ed] [the] conclusion that [the] plaintiff ha[d] suffered irreparable injury to its patent rights, for which there [was] no adequate remedy at law."\textsuperscript{177} When balancing the hardships, another court found that "given the finding of willful infringement," it was "unpersuaded that there [was] no need for an injunction."\textsuperscript{178} Yet another court concluded that based primarily upon the finding of willful infringement, "the public interest would not be disserved by a permanent injunction."\textsuperscript{179}

The above examples indicate that some courts have begun to properly incorporate willful infringement within the four-factor permanent injunction analysis. However, courts have done so in a rather conclusory fashion and have not yet fully developed the irreparable harm because "MercExchange [took] few steps, if any, before trial, during trial, or within the first three years after trial to either develop its patents or to establish a licensing program." \textit{Id.} at 579. Regarding the inadequacy of a legal remedy, the court reasoned, "eBay's willful infringement may lead to the entry of an award for enhanced damages," which would make "monetary damages more than adequate as a remedy." \textit{Id.} at 583. When balancing the hardships, the court explained, "[o]n one hand, eBay is an adjudicated willful infringer of plaintiff's... patent, weakening eBay's claim on the Chancellor's conscience and [o]ne who elects to [utilize a business method] found to infringe cannot be heard to complain if an injunction against continuing infringement destroys the business so elected." \textit{Id.} at 583-84 (quoting Windsurfing Int'l, Inc. v. AMF, Inc., 782 F.2d 995, 1003 n.12 (Fed. Cir. 1986)). However, the hardships weighed in neither party's favor, as "MercExchange appear[ed] to exist solely to license its patents to established internet companies that either infringe[rd] or [were] fearful of litigation," which "suggest[ed] that it [would] not suffer a hardship from a similar resolution." \textit{Id.} at 584. With regard to the public interest, the court found that "eBay's status as a \textit{willful} infringer... plainly favor[ed] MercExchange." \textit{Id.} at 590. However, the court ultimately conclude[d] that such willful infringement [was] insufficient to tip the public interest in MercExchange's favor because: (1) as noted previously, the court views the willfulness issue to be a close call; (2) enhanced damages [would] suffice to punish such borderline willfulness; and (3) MercExchange's established history of suing market participants to exact a royalty, sustained lack of interest in defending its right to exclude, and repeated attempts to sell off its intellectual property rights, create[d] a strong public interest in holding MercExchange accountable for its past actions and words.

\textit{Id.}


\textsuperscript{178} Wald, 2006 U.S. Dist. LEXIS 51669, at *16-17, *19; see also Muenkel & Lee, \textit{supra} note 112, at 17 (commenting that the \textit{Wald} court "seemed particularly moved" by the willful infringement finding).

essential role of willfulness. This Comment adopts the view that willful infringement is most relevant under the second two factors: the balance of the hardships and the weighing of the public interest.

A. Balancing the Hardships

An infringer's willfulness proves exceedingly relevant in evaluating the infringer's claim of potential hardship resulting from a permanent injunction. "One who elects to build a business on a product found to infringe cannot be heard to complain if an injunction against continuing infringement destroys the business so elected." Courts balance hardships to "avoid harsh results that strict application of law could inflict on a blameless party," and where an infringer has acted willfully, it cannot show "undue harm from strict legal enforcement."

When an infringer has acted willfully, that infringer enters the courtroom with unclean hands. According to the Supreme Court, "[a]ny willful act concerning the cause of action [that] rightfully can be said to transgress equitable standards of conduct is sufficient cause for the invocation" of the doctrine of unclean hands. The Supreme Court has explicitly defined the function of the doctrine of unclean hands in patent cases: "[H]e who comes into equity must come with clean hands." In other words, "[o]ne who seeks equity must do equity." Moreover, "where a suit in equity concerns the public interest as well as the private interests of the litigants, [the] doctrine assumes even wider and more significant proportions," and "[a] patent by its very nature is affected with a public interest."

180. On remand, the district court in MercExchange provided by far the most detailed incorporation of willfulness by any court thus far. See supra note 176 and accompanying text (outlining the court's analysis of eBay's willful infringement under the four-factor test).

181. See, e.g., Shockley v. Arcan, Inc., 248 F.3d 1349, 1361 (Fed. Cir. 2001) (affirming a district court's "denial of equitable intervening rights" because "[t]he record, with its finding of willful infringement, amply support[ed] the district court's discretion to deny [the defendant] access to equity").

182. Windsurfing Int'l, 782 F.2d at 1003 n.12.


184. Shockley, 248 F.3d at 1361.

185. Precision Instrument, 324 U.S. at 815.

186. Id. at 814. Although the Court discussed unclean hands within the context of patent procurement, the Court explained that the doctrine "is a self-imposed ordinance that closes the doors of a court of equity to one tainted with inequitableness or bad faith relative to the matter in which he seeks relief." Id. (emphasis added).

187. Shockley, 248 F.3d at 1361 (quoting Mfr.'s Fin. Co. v. McKey, 294 U.S. 442, 449 (1935)).

188. Precision Instrument, 324 U.S. at 815-16.
historical interest in exercising free discretion to prevent advancement of "iniquity."918

The above traditional equitable principles dictate that courts must offset a willful infringer's claimed hardship, as analyzed under the four-factor test, to the extent that the hardship was caused by its willful infringement.190 Indeed, in "virtually all areas of law,"191 when a defendant has acted willfully, courts "need not balance the hardship[s]."192 In light of eBay's dismissal of categorical rules,193 courts should balance the hardships when an infringer has acted willfully,194 but discount the infringer's claimed hardship according to the extent — perhaps completely — that its willful infringement caused the hardship.

When determining the amount to offset a willful infringer's claimed hardship, courts should also consider the degree of an infringer's willfulness.195 For example, an infringer that committed extremely willful conduct likely deserves no weight when claiming hardship, but an infringer that committed less-willful infringement may deserve some weight.196 The factors that could guide a court in such an analysis are currently unsettled.197

189. Id. at 814 (quoting Bein v. Heath, 47 U.S. 228, 247 (1848)). Courts have a wide range of discretion to refuse to aid the party with unclean hands. Id. at 815. "Accordingly, one's misconduct need not necessarily have been of such a nature as to be punishable as a crime or to justify legal proceedings of any character." Id.
190. Stockwell, supra note 84, at 751.
191. Id.
192. Id. at 752 (quoting United States v. Marine Shale Processors, 81 F.3d 1329, 1358 (5th Cir. 1996)). For a lengthy list of cases in which courts afforded no weight to parties' hardship claims after they had acted willfully see Marine Shale Processors, 81 F.3d at 1359 n.16. See, e.g., Helene Curtis Indus., Inc. v. Church & Dwight Co., 560 F.2d 1325, 1333-34 (7th Cir. 1977) (trademark infringement); E.F. Johnson, 623 F. Supp. at 1504 (patent infringement); Normandy B. Condo. Ass'n, Inc. v. Normandy C. Ass'n, Inc., 541 So. 2d 1263, 1263 (Fla. Dist. Ct. App. 1989) (interference with an easement); Barrett v. Lawrence, 442 N.E.2d 599, 603 (Ill. App. Ct. 1982) (failure to deposit money in an escrow); Christensen v. Tucker, 250 P.2d 660, 665-66 (Cal. Ct. App. 1952) (land encroachment).
193. See eBay, 126 S. Ct. at 1841 (stating that the district and appellate courts erred by applying categorical rules).
194. See MercExchange, 500 F. Supp. 2d at 569 (explaining that even though eBay was a willful infringer, "a permanent injunction [should] only issue if plaintiff carries its burden of establishing that, based on traditional equitable principles, the case specific facts warrant entry of an injunction").
195. Stockwell, supra note 84, at 751.
196. See id. (suggesting that "claims of hardship by an adjudicated willful infringer — especially one which is found to have copied the invention — may deserve no weight at all").
197. See Bobbie J. Wilson & Christopher Kao, Howard Rice Client Alert: Recent Federal Circuit Decision Establishes Higher Standard for Proving Willful Infringement and Gives Greater Protection to Trial Counsel, Aug. 21, 2007, http://howardriceconnect.com/ve/ZZ76s9778uaL9771Fkm (noting that
In the recent past, courts determined willfulness pursuant to a totality of the circumstances analysis, which included the Read factors:

(1) whether the infringer deliberately copied the ideas or design of another;
(2) whether the infringer, when he knew of the other's patent protection, investigated the scope of the patent and formed a good-faith belief that it was invalid or that it was not infringed; ... (3) the infringer's behavior as a party to the litigation; ... (4) the defendant's size and financial condition; ... (5) the closeness of the case; ... (6) the duration of defendant's misconduct; ... (7) remedial action by the defendant; ... (8) the defendant's motivation for harm; ... and (9) whether the defendant attempted to conceal its misconduct.

However, the viability of these factors remains unsettled after In re Seagate Technology, LLC, in which the Federal Circuit redefined the willfulness standard to require "at least a showing of objective recklessness." The factors that ultimately define the analysis under the new standard should provide a helpful framework for courts when determining the amount to discount a willful infringer's claimed hardship. Thus far, at least one of the Read factors, the closeness of the case, appears relevant because MercExchange's renewed request for a permanent injunction was denied on remand in part because the district court "viewed the willfulness issue to be a close call."

B. Weighing the Public Interest

Willful infringement also proves relevant in determining whether a permanent injunction would disserve the public interest. Although the presence of a willfulness finding may not dictate that the public interest favors a permanent injunction, "to some extent, we are exchanging the known (the well-established Read v. Portec factors) for the unknown".

201. MercExchange, 500 F. Supp. 2d at 590.
203. For example, the district court on remand in MercExchange dismissed the "general rule" that the public interest always favors an injunction in the
denying permanent injunctions in such cases severely conflicts with the general goal of the patent system. The patent system seeks to promote innovation for the benefit of the public by allowing inventors to enjoy a time-limited monopoly in exchange for disclosing their inventions to the public.\textsuperscript{204} Thus, "[t]he public has an interest in maintaining a strong patent system" that offers protection strong enough to induce inventors to disclose their inventions.\textsuperscript{205} If the patent system allows infringers to willfully take patented technology without adequately compensating patent holders,\textsuperscript{206} inventors will lose the incentive to disclose their inventions.\textsuperscript{207} Therefore, absent circumstances that endanger the public health or welfare,\textsuperscript{208} "[t]he public maintains an interest in protecting the rights of patent holders as well as enforcing adequate remedies for patent infringement," and "[p]ermanent injunctions serve that interest."\textsuperscript{209}

\begin{flushright}
V. CONCLUSION
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In \textit{eBay}, the Supreme Court provided lower courts with a necessary tool to remedy the undue leverage that virtually certain permanent injunctions provided patent trolls. However, at the same time, the Court endangered the livelihood of legitimate small presence of a willfulness finding. 500 F. Supp. 2d at 590. The district court further remarked, "even when faced with a willful infringer the court must consider the factual history of the case, including the patent holders' prior acts, as well as the parties' relative positions in the market, the nature of the patent at issue, and its impact on the public." \textit{Id.}


\textsuperscript{205} \textit{TiVo}, 446 F. Supp. 2d at 670; see also \textit{Black & Decker}, 2006 U.S. Dist. LEXIS 86990, at *13-14 (explaining that "[i]n general, public policy favors the enforcement of patent rights").

\textsuperscript{206} See \textit{TiVo}, 446 F. Supp. 2d at 670 (finding in a case involving willful infringement that the public's interest in maintaining a strong patent system "is served by enforcing an adequate remedy for patent infringement -- in [that] case, a permanent injunction").

\textsuperscript{207} \textit{Seth A. Cohen, Comment, To Innovate or Not to Innovate, That Is the Question: The Functions, Failures, and Foibles of the Reward Function Theory of Patent Law in Relation to Computer Software Platforms}, 5 MICH. TELECOMM. & TECH. L. REV. 1, 4 (1998) (explaining that "[b]oth monopoly rights, as well as laws to protect the infringement of those rights, allow the inventor to recoup the costs of research and development as well as earn a fair amount of remuneration for the disclosure of the idea").

\textsuperscript{208} \textit{3M Innovative Props. Co. v. Avery Dennison Corp.}, No. 01-1781, 2006 U.S. Dist. LEXIS 70263, at *6 (D. Minn. Sept. 25, 2006) (issuing a permanent injunction where the case did not present "concerns about public health or safety that could warrant denial of injunctive relief").

\textsuperscript{209} \textit{Commonwealth Scientific}, 492 F. Supp. 2d at 607.
entities, and the American economy cannot afford to allow legitimate small entities to become casualties of the battle against patent trolls. To ensure the long-lasting success of legitimate small entities and the American economy, the patent system should provide incentives for large companies to respect the patent rights of legitimate small entities. Accordingly, willful infringement should play a prominent role in determining whether to issue permanent injunctions.