

**PATENT AND CONTRIBUTION: BRINGING THE QUID PRO QUO
INTO *EBAY V. MERCExchange***

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ABSTRACT

In eBay, Inc. v. MercExchange, L.L.C., the Supreme Court declared that an injunction granted to stop and prevent patent infringement is like any other injunction, and therefore should only issue after consideration of traditional equitable factors. It is not yet clear whether this decision has truly changed existing patent law, but one thing is certain—injunctions are no longer viewed as a guaranteed remedy for patent infringement. One potential effect of eBay on the world of technology is on the value of patents. Much of the discussion of eBay has focused on the decision's effect on patent owners who do not practice their patent. Without the threat of a guaranteed permanent injunction, these patent owners will have less bargaining power in licensing negotiations and might get less favorable licensing arrangements. This note discusses this potential change in patent value and its relation to one primary justification for patent law, the quid pro quo, which views the patent as an exchange between the inventor and the public: invention and disclosure in exchange for the right to exclude. In the post-eBay world, the fact that an injunction is no longer a guarantee may reduce the value of the right to exclude. This may create a disparity in the exchange—the inventor may receive less value from the public in the form of a patent while the public receives more from the invention and disclosure through the denial of an injunction. This note argues that eBay need not conflict with the quid pro quo exchange, and that, although current decisions relying on the Supreme Court's opinion do not do so, courts can and should use eBay to better tailor the patent right to the value of the actual contribution of invention and disclosure.

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I. INTRODUCTION

In 2006, the Supreme Court of the United States declared in *eBay, Inc. v. MercExchange, L.L.C.*,¹ that a permanent injunction for patent infringement should be granted only after weighing the same equitable considerations as injunctions in other areas of the law. In doing so, the Court overturned the Federal Circuit's decision, which followed the common treatment of injunctions almost as an automatic remedy for patent infringement.² *eBay* has, in all likelihood, changed the landscape of patent litigation and licensing by giving courts more discretion and power to deny injunctive relief. If an injunction is denied, a court grants in its place what it deems to be reasonable royalties to the patent owner, essentially creating an ex post licensing agreement. Thus, the owner is denied the absolute right to exclude, and a license is created not as a result of bargaining ex ante, but as a result of an adversarial judicial proceeding ex post.

A denial of an injunction can and should be viewed as a reduction of the value of a patent.³ Denying an injunction takes away the patent owner's option to keep others from using the patented invention, depriving the patent owner of a significant bargaining chip in licensing arrangements. Potential licensees might be encouraged to take their chances and infringe if they feel that litigation will result in a "reasonable royalty" that would be less than the asking price for the license. To avoid this outcome, the patent owner would be forced to accept less in exchange for a license, reaping less profit from his patent. In this note, I examine this impact on the value of a patent and its relation to one of the primary justifications of patent law—the quid pro quo. If a patent can be viewed as a right granted to its owner by the public in exchange for an invention and its disclosure, how does *eBay* affect this exchange?

Part II of this note provides a review of the litigation leading up to the Supreme Court's decision. Part III discusses the potential impact of the decision on trolls and others, while Part IV

¹ 547 U.S. 388 (2006).

² *MercExchange, L.L.C. v. eBay, Inc.*, 401 F.3d 1323, 1338 (Fed. Cir. 2005).

³ Without the injunctive power of the courts, the right to exclude granted by the patent would be diminished, and the express purpose of the Constitution and Congress, to promote the progress of the useful arts, would be seriously undermined. The patent owner would lack much of the "leverage," afforded by the right to exclude, to enjoy the full value of his 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.

Smith Int'l, Inc. v. Hughes Tool Co., 718 F.2d 1573, 1577-78 (Fed. Cir. 1983).

looks at that impact in the context of the quid pro quo. Part V argues that the goal of keeping the patent right tailored to the value of the patentee's contribution to society, in consideration of this patent exchange, is valid under the goals of equity in patent law. Finally, Part VI explains how such an analysis can fit into the test laid out by the Supreme Court in *eBay*.

II. BACKGROUND

A. District Court

On May 27, 2003, a jury in the Eastern District of Virginia found eBay liable for willfully infringing two patents owned by MercExchange.⁴ However, Judge Jerome Fieldman refused to grant MercExchange a permanent injunction against eBay, invoking his discretion in doing so.⁵ Judge Fieldman noted that injunctions are an equitable remedy and proceeded to analyze the four factors considered in granting an injunction: "(i) whether the plaintiff would face irreparable injury if the injunction did not issue, (ii) whether the plaintiff has an adequate remedy at law, (iii) whether granting the injunction is in the public interest, and (iv) whether the balance of the hardships tips in the plaintiff's favor."⁶ In analyzing the first factor, the court recognized a presumption of irreparable harm to MercExchange in the finding of patent validity and infringement, but cited MercExchange's willingness to license its patents, its lack of commercial activity, and its media statements that it was seeking damages and not an injunction, as adequate factors to overcome this presumption.⁷ Similarly, the court found an adequate remedy at law based on MercExchange's usual willingness to license its patents.⁸ While the court recognized the general public interest in maintaining the integrity of a patent, it agreed with the defendant that the status of business method patents as questionably patentable meant that there was a countervailing public interest in having the business method patent practiced (which MercExchange did not do), therefore weighing the third factor equally for both sides.⁹ Finally, the court found that the contentious relationship between the parties, combined with the adequacy of damages to compensate MercExchange for any

⁴ *MercExchange, L.L.C. v. eBay, Inc.*, 275 F. Supp. 2d 695, 698-99 (E.D. Va. 2003). The patents at issue involved a method for searching an online market for products, U.S. Patent No. 6,085,176 (filed Mar. 8, 1999), and a method for creating a trusted relationship between consignor and bailee in the online auction environment, U.S. Patent No. 5,845,265 (Nov. 7, 1995).

⁵ *eBay*, 275 F. Supp. 2d at 711.

⁶ *Id.* (citing *Odetics, Inc. v. Storage Tech. Corp.*, 14 F. Supp. 2d 785, 794 (E.D. Va. 1998)).

⁷ *Id.* at 712.

⁸ *Id.* at 712-13.

⁹ *Id.* at 713-14.

continuing infringement, meant that granting an injunction would simply result in multiple and exhaustive contempt hearings, incurring costs on all parties without doing much good. The court concluded that a balance of the hardships weighed in favor of denying an injunction.¹⁰

B. Federal Circuit

The Federal Circuit disagreed with Judge Fieldman.¹¹ While the court did not declare that an injunction should issue in all cases of infringement, it noted that a denial of an injunction is only warranted in very special circumstances, generally when “‘a patentee’s failure to practice the patented invention frustrates an important public need for the invention,’ such as the need to use an invention to protect public health.”¹² It therefore rejected Judge Fieldman’s analysis and concluded that the case was not “‘sufficiently exceptional to justify the denial of a permanent injunction.’”¹³ The court found that worries over business method patents and the contentious relationship between the parties were not specific or unusual enough to deny an injunction in this case, and that MercExchange’s willingness to license its patent “‘should not . . . deprive it of the right to an injunction to which it would otherwise be entitled.’”¹⁴ The court concluded: “‘We therefore see no reason to depart from the general rule that courts will issue permanent injunctions against patent infringement absent exceptional circumstances.’”¹⁵

C. Supreme Court

Finally, the Supreme Court intervened to establish a middle ground.¹⁶ In a brief, unanimous opinion, it declared that nothing in the patent law indicated an intent by Congress to depart from the traditional rules of equity. Therefore, injunctions would only issue after a showing by the plaintiff:

(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

¹⁰ *Id.* at 714-15.

¹¹ *MercExchange, L.L.C. v. eBay, Inc.*, 401 F.3d 1323 (Fed. Cir. 2005).

¹² *Id.* at 1338 (quoting *Rite-Hite Corp. v. Kelley, Inc.*, 56 F.3d 1538, 1547 (Fed. Cir. 1995)).

¹³ *Id.* at 1339.

¹⁴ *Id.*

¹⁵ *Id.* at 1340.

¹⁶ *EBay v. MercExchange*, 547 U.S. 388 (2006).

equity is warranted; and (4) that the public interest would not be disserved by a permanent injunction.¹⁷

While the Court recognized that patent law guarantees a right to exclude, it explained that “creation of a right is distinct from the provision of remedies for violations of that right.”¹⁸ The Court agreed with the district court that the four factors should have been applied, but it found that the district court erred in adopting “certain expansive principles suggesting that injunctive relief could not issue in a broad swath of cases.”¹⁹ The Court recognized that categorically denying equitable relief to those who prefer to license rather than practice their patents would deny equitable relief to those who deserve it, including self-made inventors and universities.²⁰ The Court also rejected the Federal Circuit’s rule of categorically granting injunctions.²¹

The Court therefore rejected both the district court’s reasoning and the Federal Circuit’s, but it offered no real guidance as to how to interpret the factors; when an injunction might be granted and when it might not; or what the status of injunctions for infringement might be. Chief Justice Roberts, joined by Justices Scalia and Ginsberg, wrote a concurring opinion arguing that the history of granting injunctions for patent infringement was in line with the four factor test, which *usually* came out on the side of an injunction because of the inadequacy of monetary remedies, and that therefore the decision did not change the landscape of patent law.²² The Justices accepted the four factor test, but noted that “there is a difference between exercising equitable discretion pursuant to the established four-factor test and writing on an entirely clean slate,”²³ and suggested that decisions based on the test pay attention to the history of issuing injunctions.

In another concurring opinion, Justice Kennedy, joined by Justices Stevens, Souter, and Breyer, stressed context over precedent, noting that many of the circumstances surrounding patent litigation are now different than they were in the past.²⁴ Companies now exist solely to enforce and license patents, not to practice.²⁵ For example, a patented invention may only be a small component of a larger infringing device, in which case, damages may be sufficient to compensate the patent owner, and the denial of an injunction would keep the patent owner from holding up

¹⁷ *Id.* at 391.

¹⁸ *Id.* at 392.

¹⁹ *Id.* at 393.

²⁰ *Id.*

²¹ *Id.* at 394.

²² *Id.* at 395 (Roberts, C.J., concurring).

²³ *Id.*

²⁴ *Id.* at 396 (Kennedy, J., concurring).

²⁵ *Id.*

production of the larger device.²⁶ The Justices also noted that injunctions may have different consequences when granted to business method patents, which are sometimes of questionable validity.²⁷

III. *EBAY* AND THE PATENT TROLL: JUSTIFIED PUNISHMENT OR UNFAIR TARGETING?

EBay's impact has been broadly felt. From the response, it seems that the legal community has viewed the decision as momentous, with some praising it for bearing down on patent trolls,²⁸ and others expressing worry that the decision will have an effect on unintended areas.²⁹

A. *EBay (Rightfully) Cracks Down on Patent Trolls*

EBay probably has its largest effect on patent trolls. Patent trolls are companies that buy up existing patents and make their money by either licensing or litigating those patents. Patent trolls generally do not develop or practice the patent themselves. Negative portrayals of patent trolls describe them as companies who buy up small, questionably valid patents, with the hopes of suing wealthy companies caught using—and infringing—the invention.³⁰ Sometimes these patents can make up a single

²⁶ *Id.*

²⁷ *Id.* at 397. The Federal Circuit's decision in *In re Bilski*, 545 F.3d 943, 954 (2008), which questions the validity of some business method patents, may render this point moot.

²⁸ See, e.g., Gavin D. George, Note, *What Is Hiding in the Bushes? EBay's Effect on Holdout Behavior in Patent Thickets*, 13 MICH. TELECOMM. TECH. L. REV. 557, 560 (2007) (describing *eBay* as a "revolutionary addition to list of legal protections against holdouts").

²⁹ See, e.g., William R. Everding, Comment, "*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*, 41 J. MARSHALL L. REV. 189, 202-05 (2007) (expressing worry that *eBay* will harm small entities who legitimately do not practice their inventions); Leslie T. Grab, Recent Development, *Equitable Concerns of eBay v. MercExchange: Did the Supreme Court Successfully Balance Patent Protection Against Patent Trolls?*, 8 N.C. J. L. & TECH. 81, 112-14 (2006) ("In the case of patentees who do not practice the invention or sell a product, calculation of lost profits and a reasonable royalty becomes less certain or altogether impossible."); Jeremiah S. Helm, Comment, *Why Pharmaceutical Firms Support Patent Trolls: The Disparate Impact of eBay v. MercExchange*, 13 MICH. TELECOMM. & TECH. L. REV. 331, 342 (2006) (explaining the pharmaceutical industry's worries that the *eBay* decision will harm it); Jonathan H. Urbanek, Note, *A Postmortem for Permanent Injunctions Against Business Method Patent Infringement in the Wake of eBay v. MercExchange*, 57 DEPAUL L. REV. 607, 608 (2008) (arguing that *eBay* places an insurmountable burden on owners of business method patents seeking injunctions).

³⁰ Damian Myers, Note, *Reeling in the Patent Troll: Was eBay v. MercExchange Enough?*, 14 J. INTELL. PROP. L. 333, 335 (2007).

component of a larger product, and a patent troll's refusal to license can delay or block the production of the entire invention. Thus, the bargaining power of patent trolls may not be proportional to the actual contribution of the patent to the overall product.³¹

From this point of view, patent trolls are harmful to competition and innovation, preventing follow-on innovation on patents and keeping products out of the market. Yet the patent troll problem cannot necessarily be solved with an *ex ante* approach to patent law by changing patentability standards or patent rights. Patents do not have inherent attributes that predispose them to trolling activity, and it would be impossible to change patent law to specifically filter out patents that might be used by patent trolls. While it is true that trolls often latch on to questionably valid patents, the problem isn't only, if at all, in the validity of these patents. A perfectly valid patent can be used by a patent troll if the right circumstances arise.³² Thus, more stringent standards at the U.S. Patent and Trademark Office (PTO) cannot solve a problem that does not fully arise until after the patenting process. While the PTO could be more careful in assessing the patentability of inventions with troll potential and scoping the claims of these patents as narrowly as possible, a patent's right to exclude intrinsically confers both value and leverage on the patent owner that cannot be entirely eliminated.

EBay can therefore be viewed as keeping the patent trolls in line in an *ex post* way that the PTO cannot. *EBay* essentially reduces a patentee's leverage by limiting the right to exclude once it is clear that this right gives a patent owner too much leverage against potential infringers. Specifically, it can be argued that *eBay* leans toward denying an injunction to patent trolls precisely because, with an injunction, a patent troll can force a license for the patent for a much higher value than the patent's actual contribution to the overall product.³³ Because the patent troll does not practice his patent, monetary remedies should sufficiently compensate him without irreparable harm in the form of new competition or effective removal from the market.³⁴ Moreover, *eBay* vindicates the public's interest in seeing the overall product produced at the most efficient cost. A company whose entire product is held up by one patent can prove greater hardship than the patent troll.

³¹ *Id.* See also Helm, *supra* note 29, at 336 ("An injunction would give MercExchange the right to hold eBay's entire business operations hostage, thereby increasing the bargaining power far beyond what is reasonable.").

³² If patent trolls only profited off invalid patents, their bargaining power would be significantly less than it has shown to be.

³³ See Helm, *supra* note 29, at 337.

³⁴ *Id.* at 338.

B. eBay Unfairly Harms the Value of Patents to Non-Practicing Entities

Thus, at first glance, the *eBay* factors seem to come out on the right side—the side against patent trolls. However, not everyone views patent trolls in such a negative light. For instance, Miranda Jones defends patent trolls, which she calls non-practicing entities to remove the stigma of the name.³⁵ First, she notes that licensing a patent but not practicing it is not illegal, and *eBay* errs in “predicating the grant of the only adequate remedy for infringement on actions that patent owners have no legal duty nor legal right to undertake.”³⁶ Jones claims that patent trolls play a crucial role in the patent world. They deter freeriders by increasing the likelihood of litigation and therefore the costs of infringing.³⁷ They maintain the validity and reliability of the patent system by enforcing valid patents. Jones also believes that patent trolls help innovation and competition by helping inventors to profit from their inventions (by buying patents from inventors who can’t necessarily commercialize or enforce them on their own); establishing the market value of patents through license negotiations that ensure that the company that values the patent most gets the right to it; and encouraging competition and innovation in design around inventions, which can be even more beneficial to the public than the original invention.³⁸

The disagreement on the culpability of patent trolls may be due to the vague and broad nature of its definition. Those who dislike “trolls” accuse them of using undue leverage to hold up legitimate enterprises, while those who defend them laud them for upholding the integrity of the patent system. It seems that these groups are arguing about different things—patent trolls versus non-

³⁵ Miranda Jones, Casenote, *Permanent Injunction, a Remedy by Any Other Name Is Patently Not the Same: How eBay v. MercExchange Affects the Patent Right of Non-Practicing Entities*, 14 GEO. MASON L.REV. 1035, 1036 (2007).

³⁶ *Id.* at 1039. Jones notes that patent owners have a negative right to prevent others from using their invention but not necessarily a positive right to practice their invention themselves. Likewise, the Copyright Act declares that “no patent owner otherwise entitled to relief . . . shall be denied relief or deemed guilty of misuse . . . by reason of his having . . . refused to . . . use any rights to the patent” 35 U.S.C. § 271(d)(4) (2000).

³⁷ Jones, *supra* note 35, at 1043. Some argue that the patent system is failing in its ultimate goal of disclosures precisely because companies do not look at or consider other patents when designing their products. See, e.g., Note, *The Disclosure Function of the Patent System (or Lack Thereof)*, 118 HARV. L. REV. 2007, 2023 (2005) (“[M]any innovators follow a strategy of ‘willful ignorance’ with respect to the patents in their field.”). If this is the case, innocent infringement “freeriding” may be more of a symptom of a failed patent system than a contributing problem.

³⁸ Jones, *supra* note 35, at 1043. For further defense of non-practicing entities, see Raymond P. Niro & Paul K. Vickrey, *The Patent Troll Myth*, 7 SEDONA CONF. J. 153 (2006).

practicing entities. At the least, patent trolls simply seem to be non-practicing entities of which society disapproves. Unfortunately, there is no easy way to categorically distinguish between the two, and if *eBay* cracks down on both indiscriminately, this could be a problem.³⁹ In any event, the decision reduces the bargaining power of patent trolls by giving the infringer the option of refusing to license.⁴⁰ Instead of litigating with the goal of finding the patent invalid or the device non-infringing, an infringer can litigate with the goal of forcing a license agreement on the patent troll—for an amount that is arguably less than what the patent troll would have liked. Whether patent trolls or non-practicing entities deserve to have the value of their patents reduced, this is, nonetheless, taking place.

IV. BRINGING *eBAY* INTO A LARGER CONTEXT: THE ENTIRE PATENT SYSTEM

Some argue that the concept of a “troll” is a myth, that the definition of “troll” is ambiguous and simply used whenever one party wants to cast the other in a negative light.⁴¹ If this is the case, then *eBay* should not be read as a case affecting only patent trolls. A reasonable question to ask is whether the line is so clearly drawn at patent trolls that we need not worry about other patents and patent owners—patent owners we generally like more than patent trolls. There is reason to think that, whether or not it was intended solely as a method to police patent trolls, *eBay* has had and will have an effect on other patents.

While the Supreme Court did not give much guidance on how to apply the four factors, some worry the decision will adversely affect the pharmaceutical industry, as well as business method and software patent owners.⁴² The focus on non-practicing patent owners seems to have translated to a general rule that direct competition between owner and infringer encourages an injunction, while lack of direct competition generally means the denial of an injunction.⁴³ However, patent trolls are not the only entities that may choose not to practice their patents, and they are

³⁹ If *eBay* stops not only patent trolls but also non-practicing entities, then the benefits of such entities, as described by Jones, will be lost.

⁴⁰ See Niro & Vickrey, *supra* note 38; George, *supra* note 28, at 567-68 (explaining that *eBay* creates a liability rule instead of property rule for patent trolls, forcing the patent owner to accept payment for infringement instead of enjoining the infringer).

⁴¹ See Niro & Vickrey, *supra* note 38 (explaining that the term “troll” was created to justify questionable legal tactics taken against patent owners).

⁴² See Helm, *supra* note 29; Urbanek, *supra* note 29.

⁴³ See Edward D. Munzo, *Injunctions in Patent Cases After eBay*, 7 J. MARSHALL REV. INTELL. PROP. L. 44, 53 (2007); Jeremy Mulder, Note, *The Aftermath of eBay: Predicting When District Courts Will Grant Permanent Injunctions in Patent Cases*, 22 BERKELEY TECH. L.J. 67, 80 (2007).

not the only entities that do not compete directly with potential infringers.⁴⁴

Scholarship and cases following *eBay* suggest that the decision will have an effect on a variety of types of patents and on a variety of players. However, a focus on the effect of the decision on a specific type of patent or industry may prevent a true assessment of the impact and soundness of *eBay* when considering the patent system as a whole. Analyzing how the decision interacts with the entire patent system may help courts understand how they should apply the decision in a variety of contexts. I therefore suggest looking at the decision, not from the perspective of individual industries or players, but by taking into consideration the origins and policy motivations for patent law as a whole. As discussed above, the rule in *eBay* may change the value of certain patents. A patent owner who might be denied an injunction has less bargaining power in licensing his patent. Moreover, if *eBay* is used to deny an injunction and force a license when the patent owner would have opted against one, it can deprive the owner the value of denying the license.⁴⁵ This effect on the value of a patent will likely interact with patent law and the patent system as a whole. In this section, I show that a general analysis of the effect of *eBay* on the patent system should be done with consideration of one of its primary justifications: the quid pro quo.

A. Incentive Justification of Patent Law

Congress has been authorized to grant patents “[t]o promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.”⁴⁶ Many use this clause to explain the patent system as a system of incentives: by granting an inventor an exclusive right in his invention, Congress motivates the

⁴⁴ See, e.g., Everding, *supra* note 29, at 190.

⁴⁵ Not only will a patent holder be harmed at the initial stage of negotiating for licenses, before any suit commences, by the loss of bargaining power, he will also be harmed by the denial of an injunction once infringement is found. In some situations, a court may deny a permanent injunction, but encourage the parties to enter into their own licensing arrangement. In such a situation, the patent holder has less bargaining power in negotiating this license than he would have had had an injunction been granted. The grant of an injunction does not necessarily guarantee that an infringer will have to stop use of the patented invention, it simply gives the patent owner a choice between excluding the infringer or using the injunction as a large bargaining chip in negotiating for a license. Denial of an injunction therefore deprives the patent holder of substantial value in this choice and bargaining power. Whatever the patent holder’s intention—to license or to exclude—he reaps less from his invention when an injunction is denied.

⁴⁶ U.S. CONST. art. I, § 8, cl. 8.

inventor to invent and to share his invention with the public.⁴⁷ Essentially, the government holds a carrot in front of the inventor—a valuable monopoly on whatever he invents—to motivate the inventor to innovate and share his innovation with the public. If *eBay* affects the inventor's incentive, it will affect how much effort and investment the inventor makes on his innovation. If an inventor has to discount the value of his patent to account for the possibility that the patent will not result in an absolute right to exclude, he may not invest, invent, or disclose as much.

Nonetheless, a focus on incentives is misguided. This justification for patent law is an *ex ante* view of the system, and any examination of *eBay*'s effect on patent incentives, will focus on how the decision will influence the decision to invent and patent. *eBay*, however, is an *ex post* decision—it does not affect every patent and does not affect the patentability of any invention. The analysis conducted under the *eBay* factors is very contextual, and therefore it is likely impossible to know whether a certain patent will be affected by the decision at the actual time of patenting, and unlikely that an inventor will truly be able to consider the effect of the decision when deciding what to invest and whether to patent.⁴⁸ If *eBay* is to affect the incentive function of patent law, it will mostly do so indirectly, through its overall effect on the patent system. Furthermore, just as *eBay* is an *ex post* decision, patent trolling is an *ex post* problem. Changing patenting standards will not stop patent trolls, nor can it account for the unique circumstances that arise after patenting and give patent owners opportunity for undue leverage. An *ex ante* analysis of *eBay*'s interaction with the patent system cannot account for these factors.

B. The Quid Pro Quo of Patent Law: The Patent as an Exchange

⁴⁷ See *Pfaff v. Wells Elecs., Inc.*, 525 U.S. 55, 63 (1998); Susanna Chenette, Note, *Maintaining the Constitutionality of the Patent System*, 35 HASTINGS CONST. L.Q. 221, 228 (2008); Jones, *supra* note 35, at 1043.

⁴⁸ As *eBay* is currently used, there is an even stronger argument that an incentives analysis will go nowhere. While *eBay* lowers the value of a patent, it is unclear whether a patent owner can account for the decision at all when making the decision to invest and patent. A patent owner generally patents with the expectation that he will practice—or license, in the case of research institutions—his patent. David B. Conrad, Note, *Mining the Patent Thicket: The Supreme Court's Rejection of the Automatic Injunction Rule in eBay v. MercExchange*, 26 REV. LITIG. 119, 135 (2007). *eBay* currently comes into play only when that situation has changed. Thus, *eBay*'s effect on incentives cannot be predicted and will have to be observed empirically.

The incentives justification of patent law, however, has an ex post alter ego: the quid pro quo.⁴⁹ The incentive held out to motivate invention and disclosure is also what is given in exchange for such actions. Thus the patent system is often viewed as “a carefully crafted bargain that encourages both the creation and the public disclosure of new and useful advances in technology, in return for an exclusive monopoly for a limited period of time.”⁵⁰ An inventor is motivated to invent and disclose because, in exchange for doing so, he receives the right to exclude others from making and using his invention. This exchange is the “quid pro quo” of patent law, where the patent is payment for the invention and the knowledge that comes with it.⁵¹

The quid pro quo is an ex post view of patent law where patent and invention already exist. An analysis of *eBay* under the quid pro quo therefore makes more sense than an examination under an incentives justification: it allows us to look not just at the invention at issue, but at how the invention and its patent comes to be used—matching an ex post view of patent law with an ex post decision.⁵² We should therefore ask: how does the reduction of a patent’s value caused by *eBay* affect the individual exchange between public and inventor?

Since the quid pro quo can be viewed as an ex post version of the incentive justification, answering this question can also help us examine how *eBay* interacts with the incentive function of the

⁴⁹ I do not assert that these two justifications for patent law are the same, as there are certainly differences between incentives, rewards, and exchanges. However, for the purposes of this note, which examines the change in the value of a patent, the justifications can be viewed together. The lesser the incentive, the less is incentivized. Similarly, a lesser reward should be given for a lesser, not greater, achievement. Finally, the lesser the value of one side of an exchange, the lesser the other side should be.

⁵⁰ *Pfaff*, 525 U.S. at 63.

⁵¹ *Id.*; *Brenner v. Manson*, 383 U.S. 519, 534 (1966); *Universal Oil Prods. Co. v. Globe Oil & Refining Co.*, 322 U.S. 471, 484 (1944); *Pennock v. Dialogue*, 27 U.S. (2 Pet.) 1, 23 (1829). *But see* Subba Ghosh, *Patents and the Regulatory State: Rethinking the Patent Bargain Metaphor After Eldred*, 19 BERKELEY TECH. L.J. 1315, 1321 (arguing that the quid pro quo is just an empty metaphor).

⁵² The incentives theory and the quid pro quo theory are certainly not the only justifications for patent law. For instance, commercialization theory argues that patent law functions to encourage the commercialization of technology by making such commercialization profitable. *See, e.g.*, Conrad, *supra* note 48 at 135. While it may seem that a theory of patent law focusing on commercialization would be the correct justification of a case that, thus far, is generally used to deny injunctions to patent owners who fail to commercialize their inventions, the commercialization theory is an ex ante approach to patent law. Patent law may encourage commercialization by granting patents, but it does not require it once patents are granted. This theory may be accurate from an ex ante perspective, but patent law explicitly declares that it is not patent misuse to suppress and not practice a patent. 35 U.S.C. § 271(d)(4) (2000); *see also* Conrad, *supra* note 48 at 135. Therefore, it is ill-suited to justify an ex post decision like *eBay*.

patent system. The denial of an injunction under *eBay* may reduce the value of patents to the point where the inventor gets much less in return for his invention and disclosure than what he is giving, which would effectively defy the original intent of the parties.⁵³ This outcome would help to answer the incentives question: if *eBay* alters the value of the reward of disclosure, so it no longer measures up to what was given for it, this will affect the parties' choices when negotiating the exchange in the first place.⁵⁴

Looking at the quid pro quo, however, can also account for other possibilities, besides the harm to incentives. First, the above possibility probably sweeps too broadly to be true. Multiple variables already affect the accuracy of the patent exchange. For example, no matter the industry or subject matter, all patents receive a twenty year right to exclude from the date of the patent application⁵⁵ even though the inventions may have different worth.⁵⁶ Some inventions may be worth more than others, and, from an incentives perspective, a patent system that grants a longer exclusive right or some other benefit to an inventor would bring out more of these inventions and bring disclosure to a level closer to optimal.⁵⁷ But some inventions may also be worth less than others. If this is the case, then the patent system is doing more than it needs in order to obtain the creation and disclosure of certain inventions.⁵⁸

The Supreme Court's concern about this risk of overcompensation was evident in *eBay*.⁵⁹ Patent trolls who litigate trivial patents to hold up the production of larger products are perfect examples of how a patent can be used to extort more value from an invention than it may contribute to the public. The Justices clearly felt that, in these situations, a reasonable royalty decided by the court would more accurately compensate the patent owner than a license negotiated under uneven bargaining terms in a hold-up

⁵³ See, e.g., Helm, *supra* note 29, at 342.

⁵⁴ Of course, if a patent owner can accurately calculate the probability that *eBay* will negatively affect the value of his patent, incentives theory tells us he will act accordingly by investing less to start with, thus ensuring that the quid pro quo remains intact. However, it is unlikely that such a valuing can truly occur. See *supra* note 48. In any event, a quid pro quo analysis allows both possibilities—that *eBay* ultimately harms the quid pro quo, or that it forces a reduced exchange, therefore impacting incentives.

⁵⁵ 35 U.S.C. § 154(a)(2) (2008).

⁵⁶ Eric E. Johnson, *Calibrating Patent Lifetimes*, 22 SANTA CLARA COMPUTER & HIGH TECH. L.J. 269, 283 (2006).

⁵⁷ *Id.* For various legal scholarship attempting to calculate better sized patent terms, see Mark A. Lemley & Kimberly A. Moore, *Ending Abuse of Patent Continuations*, 84 B.U.L. REV. 63, 95 n.127 (2004).

⁵⁸ See Johnson, *supra* note 56; Helm, *supra* note 29, at 337.

⁵⁹ *eBay v. MercExchange*, 547 U.S. 388, 396-97 (2006) (Kennedy, J. concurring).

situation.⁶⁰ Under contract theory, if one party receives a better bargain than what he gives in return, this uneven exchange would not justify altering the original agreement. The patent, however, is not simply a contract, and if a patent represents an uneven exchange, then *eBay* may help to equalize the original exchange to bring the value of a patent more in line with what was given for it.⁶¹ This outcome would allow the incentivizing function of patent law to be better tailored to the individual patent—giving the inventor only what he needs to be motivated to invent and disclose.

In the alternative, the use of the *eBay* factors may lead to an opposite result, reducing the value of those patents that actually contribute the most to the public. This outcome might harm the incentivizing function of patent law in a worrisome way. Another possibility is that *eBay* reduces the value of a patent, but does so inconsistently and with no relation to the values of the original exchange.

Although there are many explanations for the structure and reason behind patent law,⁶² an analysis of the interaction between *eBay* and the quid pro quo is best. Since both the decision and the justification take an ex post view of patents, looking at the individual inventor and patent after the exchange has occurred, they are a natural fit. Furthermore, since the quid pro quo views the patent as an exchange for invention and disclosure, it allows us to ask not only whether *eBay* tilts the exchange too far in favor of the public, but also whether *eBay* misses the chance to bring the exchange to a better balance or tilts the exchange more in favor of the inventor.

V. *EBAY* INCONSISTENTLY AFFECTS THE QUID PRO QUO

A question remains whether the denial of an injunction under *eBay* conforms to the quid pro quo, goes against it, or simply

⁶⁰ The requirement in *eBay* that monetary damages be adequate compensation in order for an injunction to be denied suggests that the monetary damages given would be equal in value to an injunction. However, even some of the Justices acknowledged that an injunction would give patent trolls too much power. *Id.* They could not have thought that monetary damages would compensate the patent troll the same as an injunction, just more accurately.

⁶¹ *But see* Nuno Pires de Carvalho, *The Primary Function of Patents*, 2001 U. ILL. J.L. TECH & POL'Y 25 (arguing that patents act as meters that inherently measure the value of the underlying invention). It is possible that both the Court and Pires de Carvalho are correct in their analysis. If a patent normally values the underlying invention correctly, the grant of an injunction will correctly ensure that the patent owner is accurately compensated and uphold the quid pro quo. However, *eBay* and the existence of patent trolls suggest that patents may malfunction as valuing meters. Therefore, *EBay* and the analysis conducted here, might be considered a backup solution to this problem.

⁶² For a description of the various theories of patent law, see Conrad, *supra* note 48, at 133-37. *But see* Chenette, *supra* note 47, at 229 (arguing the quid pro quo is inherent in all theories justifying patent law).

reduces the value of various patents in no relation to their initial contribution. There are two ways to look for a possible answer to this question. First, I will examine potential outcomes based on an analysis of the four factors in *eBay*. Second, I will examine the actual outcomes of post-*eBay* cases denying and granting injunctions. Of course, both analyses require a method for assessing the value of an invention's contribution to the public.

A. Assessing the Original Contribution in a Patent Exchange

In order to evaluate how *eBay* affects the patent exchange, we must be able to properly value an invention's contribution to the public.⁶³ I suggest four steps in assessing the status of the exchange between public and inventor for any given patent.⁶⁴

Step 1: Assess the general benefit to the public from the invention and disclosure. The most easily identifiable criterion to assessing the exchange between public and inventor is the face value of the invention and its disclosure. This includes the cost of the investment required to create the invention. Of course, even an invention that requires no upfront investment may have significant value to the public because it is extremely useful.⁶⁵ An invention can also have value beyond its mere existence. Some inventions bring the public value when the inventor publicly discloses their use in a patent. The more the invention contributes to the public, the more valuable its disclosure. Thus, some inventions have more value when their patents spawn follow-on and design-around inventions.

Step 2: Limit this assessment to only the value of the contribution obtained specifically because of the patent incentive. While the factors above can measure the face value of

⁶³ For possible methods of determining the value of any given patent, see Mohammad S. Rahman, *Patent Valuation: Impacts on Damages*, 6 U. BALT. INTELL. PROP. L. J. 145 (1998).

⁶⁴ It is important, in such an analysis, to keep in mind the distinction between patent and invention. While the two are frequently interchanged, they are quite different. The patent exchange consists of an inventor contributing his invention and disclosure in return for the patent—the invention is what the inventor gives, while the patent is given by the public.

⁶⁵ This factor comes with a number of caveats: no matter how beneficial to the public, if an invention would have been created absent the incentive of a patent, then it has little value in terms of an exchange. There is also the question of how much is needed to incentivize the creation of such an invention. If the inventor would have disclosed his invention for much less because of the minimal cost of creation, then its value in the exchange should again be considered quite small. These inventions will have the most value when they would have been easy to keep secret, and thus the value comes not from invention but from disclosure.

an invention to the public, it is important to remember that, with regard to the quid pro quo, we must consider the value of an invention in the context of the patent system. Therefore, as a basic premise for the process of assessing the value of an inventor's contribution to the public, it is important to keep in mind the overall purpose of the patent system as an incentive to invent. It seems reasonable to assume that the law offers a monopoly in exchange for exactly that which it is meant to incentivize—that which it wouldn't get otherwise.⁶⁶ If an inventor's contribution to the public, or part of that contribution, would reach the public domain without the incentive of the patent system, whatever value this part may have should not be attributed to the value of the inventor's contribution. Thus, inventions that have enough external incentives separate from the patent system and a nature that *requires* disclosure, so that the patent system is not needed either to incentivize invention *or* to encourage disclosure, may have little value in terms of an inventor's contribution to the exchange with the public. The likelihood that the invention would have been created and disclosed *without* the patent system is therefore a relevant consideration.⁶⁷

To assess the likelihood that an invention would have been created and disclosed absent patent law, one should first consider the need for an invention in the normal course of business. If there are other incentives motivating invention, then the prospect of patent protection may not be needed as an incentive. Second, when the prospect of profit exists without the need for the right to exclude, inventions are more likely to be created without the incentive provided by patent law.⁶⁸ Third, some inventions require great upfront investments in research and development. These

⁶⁶ “If the public were already in possession and common use of an invention fairly and without fraud, there might be sound reason for presuming, that the legislature did not intend to grant an exclusive right to any one to monopolize that which was already common. There would be no quid pro quo—no price for the exclusive right or monopoly conferred upon the inventor for fourteen years.” *Pennock v. Dialogue*, 27 U.S. (2 Pet.) 1, 23 (1829).

⁶⁷ For example, Andrew W. Erlewein suggests that “counsel working with companies that have simplified otherwise complex business procedures or that have unique methods in a competitive industry can create opportunities for clients if steps are taken to protect those business methods.” Andrew W. Erlewein, *Protecting Key Business Methods with Patents*, 86 MI. BAR J. 28, 29 (2007). He is implicitly pointing out that such methods were created without the patent system. Business method patents are routinely the subject of criticism for unpatentability. *See, e.g., eBay, Inc. v. MercExchange, L.L.C.*, 547 U.S. 288, 397 (2006) (Kennedy, J., concurring); Rick Nydegger, *B2B, B2C and Other “Business Methods”*: *To Be or Not To Be Patent Eligible?*, 9 U. BALT. INTELL. PROP. L.J. 199 (2001).

⁶⁸ While products difficult to reverse engineer seem to fall in this category, the value of disclosure, compared with the small relative value of the patent itself, suggests that these inventions have high value to the public for patenting purposes. *See infra* Part IV, section 2.

inventions are less likely to be made without the guarantee of an exclusive monopoly and the ability to recoup the cost of the investment. Thus, the amount of investment required to create the invention can inform us of the likelihood the invention would have been created without the reward of a patent.⁶⁹ Finally, if competitors are also trying to develop the invention, it is more likely the invention will come to fruition and be disclosed without the incentives of patent law.

Step 3: Assess the value of the patent right given in exchange for invention and disclosure. The third step requires us to assess the value of the patent to the inventor. Once we have determined what aspects of invention and disclosure are contributed precisely *because* of the patent incentive, we must consider how *much* of an incentive is needed to procure such a benefit to the public. We have been discussing the reduction in value of a patent caused by the *eBay* decision as if all patents initially have equal value to an inventor. However, *eBay* may have a different effect on two inventions that, after an assessment under the two steps above, would have equal value because the initial value of the patent, the value that is being reduced, is different. Therefore, we must consider not only the value to the public of certain inventions and disclosures, but also the value to the inventor of the patent he gets in return—a measure of the incentive the patent system provides.⁷⁰

Patents for inventions that do not have substitutes, for instance, are quite valuable, and the patent owner is therefore receiving more for his contribution than a patent owner whose invention has multiple substitutes. In light of the fact that patent law incentivizes not just invention but disclosure, one should also consider the likelihood that an invention could be reverse engineered. If an invention can easily be reverse engineered, there is a greater need for a patent in order for the inventor to benefit from his invention, and thus less incentive is needed for invention and disclosure. Similarly, the harder an invention is to reverse engineer, the more is needed to incentivize disclosure, and therefore the greater the value of the disclosure to the public in the

⁶⁹ This factor can also be relevant in Step 1. The cost of invention can indicate both a high face value *and* that an invention would not exist without the patent system. The fact that it is relevant to both steps means that the cost of creation is a substantial factor in determining the patent's overall value in the patent exchange. However, it should not be the only one. The mere fact that a valuable invention was inexpensive to reduce to practice does not mean that its conception or disclosure would have occurred without the incentive of a valuable patent. Moreover, a large investment that has a guaranteed return may need less of an incentive than a risky, small investment.

⁷⁰ See *supra* note 63.

patent exchange.⁷¹ Inventions that have a short shelf-life also correspond to lower valued patents. If an invention derives most of its benefit in the first five years after invention, before something better comes along, then a patent for it is worth less to an inventor than one for an invention that remains relevant for twenty years.

Step 4: Compare the results of Steps 2 and 3. Ideally, the quid pro quo should be an even exchange—the value of what the public receives should be the same as the value of what it gives. Thus, a truly equal exchange will result in the same value assessment for Step 2 as for Step 3. However, as discussed above, this outcome is extremely unlikely to occur for every single patent because the patent system is simply too uniform relative to the variety of inventions it covers. Therefore, as discussed above, it is important to examine whether a denial of an injunction under *eBay* brings the value of Step 3 closer to Step 2, or creates a greater disparity in the patent exchange.

B. The eBay Factors Can Be Used To Support or Go Against the Quid Pro Quo

One manner of assessing the impact of *eBay* on the quid pro quo is to attempt such an analysis from the rule of the case alone, and ask: when will the individual *eBay* factors weigh in favor of denying an injunction? When the patent exchange currently favors the inventor, when it favors the public, or neither?

Likelihood of Irreparable Injury and Remedies Available at Law. The four *eBay* factors are clearly related. The likelihood of irreparable injury from the denial of an injunction is greater when there is no true remedy at law. A court will likely find irreparable harm when the benefit of the patent comes mostly or solely from the specific ability to exclude others (and not from the ability to license). If the value of the right to an invention comes solely from the right to exclude others, then the public's contribution of the exchange is high, and the patent owner may conceivably be getting more for his contribution than he deserves. However, the denial of the right to exclude would remove almost the entire value of the patent for such an invention and overly tip the balance of the exchange in favor of the public. If a court finds that a high value from the right to exclude means that a patent owner will be irreparably harmed by the denial of an injunction, then, these factors might be consistent with supporting the quid pro quo, maintaining the balance instead of tipping it too far in favor of the public.

⁷¹ With that said, if an invention is so easily reverse engineered that, absent patent law it would not be invented, then its contribution in the exchange is much greater.

Many courts seem to be base their decisions regarding these *eBay* factors on whether infringer and patent owner directly compete.⁷² Courts reason that if the two parties directly compete, then a license may not be enough to compensate for the competitive loss from the denial of an injunction.⁷³ However, we must consider situations in which the owner and infringer *don't* compete. For example, in the patent troll situation, the owner/patent troll and the infringer do not compete because the owner/patent troll does not practice the invention. For most patent trolls, denying an injunction makes sense if we want to maintain the *quid pro quo*. Patent trolls purchase patents and wait until other companies fully develop infringing products in order to obtain the highest licensing fees possible. If these companies are not willfully infringing, then the patent was probably not needed to get the invention into public hands, and reducing the value of the patent is the best way to match the relative value of the invention to the public. Patent trolls are also known for holding up the production of larger inventions by enforcing patents that constitute only a small component of an overall product. When these patent trolls have the power to exclude, they receive leverage that is much greater than that derived from the actual value of the invention, and thus much greater in value than the contribution to the public.⁷⁴

Nonetheless, patent trolls may actually play an important role in the patent system. For example, many small inventors do not have the financial resources to enforce their patents, and these patents are constantly infringed by larger companies. It is not clear the invention would have been created otherwise—we do not know all avenues of disclosure, and it is certainly possible that the inventor's patent provided the information needed for these companies to develop their products.⁷⁵ Now, suppose a small inventor invents a breakthrough product. Perhaps it even becomes a basic component of a number of inventions that greatly benefit the public. This invention and its disclosure, which inspires multiple follow-on inventions, should be highly valued under Step 1, as discussed above. The inventor and patent owner should therefore get a significant value in return for his contribution. If a small inventor cannot enforce his patent, however, a patent troll

⁷² See Munzo, *supra* note 43, at 53; Mulder, *supra* note 43, at 80.

⁷³ See, e.g., Wald v. Mudhopper Oilfield Servs., No. 04-1693, 2006 U.S. Dist. LEXIS 51669 (W.D. Okla. July 27, 2006); z4 Techs., Inc. v. Microsoft Corp., 434 F. Supp. 2d 437, 440-41 (E.D. Tex. 2006).

⁷⁴ See *supra* Part III.A.

⁷⁵ Perhaps the inventor is an academic who published his theoretical findings in a paper prior to patenting his product. A company could “ignorantly” infringe the patent by basing its product off this research, but it is unclear that, without the patent system, an inventor would be as comfortable disclosing his invention through such freely accessible means.

might step in to buy and enforce the patent.⁷⁶ In such cases, it is less clear whether denying an injunction to the patent troll is the most efficient thing to do because we want to encourage patent trolls to adequately compensate such inventors. If the patent troll anticipates receiving less from his patent right because he might be denied an injunction, he will not be willing to pay the inventor for the patent right.

Scholars also worry that these factors, which weigh the likelihood of irreparable harm and adequate remedy at law, might lead a court to hurt the interests of patent-owning small businesses and startups.⁷⁷ These small businesses may not be viewed as able to compete against larger companies, even if they practice their patents.⁷⁸ If this is the case, these factors can go against the quid pro quo. A small company, in an emerging industry or with a promising new technology, might create the type of groundbreaking inventions we want to protect the most. To deny an injunction would go against the quid pro quo, reducing the value of a patent for an invention that contributes the most to the public.

When one only considers whether there is competition between the patent and the infringing invention in assessing irreparable harm and the availability of remedies, entities which practice an invention that spans industries or areas of an industry may also be put in danger. Consider a chemical compound which has both cancer-curing abilities and the ability to increase the strength and flexibility of plastics.⁷⁹ Just because the owner does not practice in both industries does not mean the value of this invention is any less than the value if he did, and the denial of an injunction for such a patent would go against the quid pro quo, tipping the balance of the exchange in favor of the public and against the inventor, even when the invention is contributing the most to the public.⁸⁰

Balance of the Hardships. To conduct a balance of the hardships, a court weighs the harm done to the infringer if he is

⁷⁶ See Jones, *supra* note 35, at 1043.

⁷⁷ See Everding, *supra* note 29; Grab, *supra* note 29, at 112-13.

⁷⁸ See, e.g., *z4 Technologies*, 434 F. Supp. 2d at 440-41.

⁷⁹ It is certainly not unusual for a new medication to have multiple effects that allow its use in very different areas of medicine. It is also not difficult to conceive of a car manufacturer inventing a new, lighter, crash resistant metal, only to have a train manufacturer steal the technology. These examples may be contrived but they can happen.

⁸⁰ This value across multiple industries may need to be discounted somewhat in Step 2: if the inventor truly anticipates a use only in his own industry, then he anticipates a patent that brings him less value than one for an invention that spans industries. This means that the actual patent that results is more than is needed to motivate invention and disclosure. However, there are certainly inventions which, even at conception, clearly have cross-industry uses, and therefore inventors that anticipate valuable patents in return for invention and disclosure.

enjoined against the harm to the owner if the injunction is denied.⁸¹ This factor could have several potential outcomes.

A balance of hardships can be used to deny an injunction when the infringing product is so essential to the infringer's business an injunction would ruin it.⁸² Such essential inventions are precisely those that contribute the most to the public, and denying an injunction reduces the value of what the public gives in return. While we may sympathize with the infringer, the use of this factor to deny an injunction in this case does not comport with the *quid pro quo*.

The balance of the hardships can also be used to favor the smaller party, whether inventor or infringer. If a startup patent owner is denied an injunction, he may lose all his assets. The same might happen to a startup infringer who is enjoined. Whether this factor maintains the balance of the *quid pro quo*, however, depends on who the smaller party is. Smaller companies may represent emerging industries with breakthrough patents. An injunction is therefore most certainly warranted to protect the *quid pro quo* if the inventor is a small start-up. If the small company is infringing on an already patented new technology, however, then protecting him, and denying an injunction, would upset the balance of the *quid pro quo* by reducing the value of a patent granted in exchange for invention and disclosure of a valuable invention.

Public Interest. This factor's relation to the *quid pro quo* entirely depends on how it is interpreted. The public interest factor may weigh against denying an injunction because the public has a great interest in maintaining the reliability of the patent system.⁸³ If this is the case, then this factor does not upset the balance of the *quid pro quo* (although it may not help it)—it simply leaves the exchange as it was, however imbalanced. However, if the public interest factor is used not to maintain the patent system, but to give back to the public precisely those inventions that are most important to the public well-being, then this factor can go against the balance of the *quid pro quo* by altering the patent exchange significantly in the public's favor. There is a significant risk to the

⁸¹ *Amoco Prod. Co. v. Vill. of Gambell*, 480 U.S. 531, 542 (U.S. 1987). Aside from any *quid pro quo* issues, the use of this factor in such a manner may encourage companies to turn a blind eye to the patent system and fully develop their products without ever checking for potential infringement. See Yixin H. Tang, Recent Development, *The Future of Patent Enforcement After eBay v. MercExchange*, 20 HARV. J. L. & TECH. 235, 250 (2006).

⁸² See, e.g., Transcript of Hearing at 125, *Finisar Corp. v. DirecTV Group, Inc.*, No. 05-264, 2006 U.S. Dist. LEXIS 70303 (E.D. Tex. Sept. 1, 2006) (denying an injunction where the infringer's main business depended on the infringing product).

⁸³ *Commonwealth Scientific & Indus. Research Org. v. Buffalo*, 492 F. Supp. 2d 600, 607 (E.D. Tex. 2007).

patent system if the public is allowed to take away the right to exclude for precisely those inventions it wants the most.⁸⁴

C. Courts' Application of the eBay Test Affects the Patent Exchange Inconsistently

It seems from this analysis that the *eBay* factors allow an injunction in a manner which comports with the quid pro quo of patent law by maintaining the high value of patents for inventions which represent valuable contributions to the public, but they can also upset the balance of the quid pro quo when the denial of an injunction reduces the value of a patent for a valuable invention. A number of post-*eBay* cases illustrate this point.

Citing *eBay*, the Southern District of Texas in *Transocean Offshore Deepwater Drilling, Inc. v. GlobalSantaFe Corp.*⁸⁵ decided that an injunction was warranted when a GlobalSantaFe oil drilling device infringed Transocean's apparatus claims in the patent-at-issue.⁸⁶ The court also found a likelihood of irreparable harm because the two parties directly competed against each other in the relevant market.⁸⁷ GlobalSantaFe argued that monetary damages would be sufficient because of Transocean's expressed willingness to license its patent and because the invention-at-issue was only one of many features of the infringing device.⁸⁸ The district court rejected this argument despite Justice Kennedy's suggestion in *eBay* that an injunction may be denied to prevent undue leverage in licensing negotiations when a patented invention is only a small component of the infringing product.⁸⁹ The court noted that while the infringing device had many other features, the patented component contributed to the rigs' core functionality. It rejected the argument for monetary damages, noting that though Transocean was willing to license its patent, it also practiced its patent and a compulsory license would "not contain any of the commercial business terms typically used by a patent holder," harming Transocean's ability to control its business.⁹⁰ Moreover, the court found that a limited injunction forcing GlobalSantaFe to alter its rigs to not infringe (as opposed to an injunction enjoining all use of the rigs), would not place an undue burden on

⁸⁴ It should be acknowledged that prior to *eBay* courts have in rare instances exercised their discretion to deny injunctive relief in order to protect the public interest in public health. *See Rite-Hite Corp. v. Kelley Co.*, 56 F.3d 1538, 1547 (Fed. Cir. 1995); *see also Roche Prods., Inc. v. Bolar Pharm. Co.*, 733 F.2d 858, 865-66 (Fed. Cir. 1984).

⁸⁵ *Transocean Offshore Deepwater Drilling, Inc. v. GlobalSantaFe Corp.*, No. 03-2910, 2006 U.S. Dist. LEXIS 93408 (S.D. Tex. 2006).

⁸⁶ *Id.* at *3.

⁸⁷ *Id.* at *13.

⁸⁸ *Id.* at *15.

⁸⁹ *eBay v. MercExchange*, 547 U.S. 388, 396 (2006).

⁹⁰ *Transocean*, 2006 U.S. Dist. LEXIS 93408 at *18-19.

GlobalSantaFe, and therefore the balance of hardships weighed in favor of Transocean.⁹¹ Finally, the court found that public interest favors the enforcement of patent rights, and that GlobalSantaFe's claims that the public would be harmed by a delay in oil production would be moot under an injunction limited in scope.⁹²

The *Transocean* court allowed an injunction when doing so would seem to maintain the balance of the quid pro quo. The court found it relevant that the patent-at-issue related to the infringing device's core functionality. Though GlobalSantaFe tried to claim that it would also be stopped from using the prior art,⁹³ the court rejected this argument and even found a way around it through an injunction limited in scope.⁹⁴ To add to this, the court had originally found that the infringing device did *not* infringe the method claims of the patent, meaning that GlobalSantaFe was using the device in follow-on form, with a new method, combined with different features. As discussed, inventions that spur follow-on innovations are precisely the kinds that should be promoted because they contribute the most to the public. The court's decision to grant an injunction therefore likely maintained the balance of the quid pro quo. Furthermore, this decision seems to acknowledge that such a consideration is relevant. The court recognized that denying an injunction and forcing reasonable royalties would harm the patent holder in his ability to control his patent⁹⁵—a recognition that is similar to acknowledging that the denial of an injunction, whatever the situation, may reduce the value of a patent.

The use of the *eBay* factors to maintain the balance of the quid pro quo can also be found in *Smith & Nephew, Inc. v. Synthes (U.S.A.)*.⁹⁶ The court here acknowledged that Smith & Nephew's patented medical device was a new technology that "filled a market gap" and found that Synthes's infringement contributed to Smith & Nephew's failure to successfully commercialize its product.⁹⁷ The court's finding of direct competition and direct harm from that competition led it to conclude that there was a likelihood of irreparable harm.⁹⁸ Moreover, the fact that "[m]onetary damages generally are not an adequate remedy against future infringement because the central value of holding a patent is the right to exclude others from using the patented product," led the court to conclude that monetary damages were inadequate.⁹⁹

⁹¹ *Id.* at *23-24.

⁹² *Id.* at *25-26.

⁹³ *Id.* at *20.

⁹⁴ *Id.* at *28-35.

⁹⁵ *Id.* at *19.

⁹⁶ 466 F. Supp. 2d 978 (W.D. Tenn. 2006).

⁹⁷ *Id.* at 983.

⁹⁸ *Id.*

⁹⁹ *Id.* at 984.

Since Synthes would suffer no hardships “inseparable from the plaintiff’s right,” the court found the balance of hardships in Smith & Nephew’s favor.¹⁰⁰ Finally, the district court concluded that the public’s interest in maintaining the integrity of the patent system and the availability of other alternatives on the market favored an injunction.¹⁰¹

Smith & Nephew’s patented device is exactly the kind of device courts should find to have a large contribution in the patent exchange. The device was not only a medical device that was, in itself, valuable to the public, it also filled a market gap, suggesting even greater value to the public. The court specifically acknowledged that damage to Smith & Nephew’s right to exclude would be inadequately compensated by monetary damages. Finally, it found public interest in favor of an injunction because of the public interest in promoting the integrity of the patent system and did not try to bring the invention into the public domain sooner than the patent allowed due to the value of low priced medical technology. *Smith & Nephew* seems to be consistent with *eBay* in trying to maintain the important balance of the quid pro quo.

The district court’s decision on remand in *eBay* seems at first to comport with the quid pro quo of patent law.¹⁰² The court emphasized the fact that MercExchange’s patent was for a questionable business method patent¹⁰³ and the fact that MercExchange would only use an injunction as leverage for a license, viewing this leverage as unjustified.¹⁰⁴ The court found that monetary remedies would be adequate, noting that MercExchange did not practice its patent and had also expressed a willingness to license.¹⁰⁵ Because MercExchange did not practice its patent, it might be deemed a patent troll. There are legitimate arguments that patent trolls essentially work to achieve a value for their patent greater than that of the contribution of invention and disclosure, and thus the denial of an injunction would keep this activity in line.

Valuing the MercExchange invention, however, is difficult. MercExchange was founded by the inventor of the patents-at-issue,

¹⁰⁰ *Id.* (quoting *Can. Lumber Trade Alliance v. United States*, 441 F. Supp. 2d 1259, 1267 (Ct. Int’l Trade 2006)).

¹⁰¹ *Id.* at 985.

¹⁰² *MercExchange, L.L.C. v. eBay, Inc.*, 500 F. Supp. 2d 556 (E.D. Va. 2007).

¹⁰³ *Id.* at 586 (finding the questionable nature of the business method patent to render the public interest factor against MercExchange).

¹⁰⁴ *Id.* at 582.

¹⁰⁵ *Id.* at 583. This fact was also relevant in balancing the hardships. Since MercExchange only wanted to license its patent, denying an injunction would not bring it significant harm. *Id.* at 584.

Thomas Woolston.¹⁰⁶ He tried to practice his patent, but was unsuccessful in commercializing it.¹⁰⁷ MercExchange approached eBay for licensing arrangements, but instead sued the giant when it discovered eBay was willfully infringing its product.¹⁰⁸ Viewed in this light, MercExchange and Woolston seem more like non-practicing entities, small inventors who, in failing to commercialize their product, attempt to license it instead. eBay now seems like the freerider, benefiting from MercExchange's disclosure by willfully infringing to a point where a court is no longer willing to stop its activities due to the economic impact such a decision would have. The economic success of eBay tells us that Woolston's invention is highly valued by the public, and yet MercExchange was denied the ability to bargain for its true value with eBay.¹⁰⁹

It is entirely possible, however, that the invention-at-issue in this case contributes little to the public. It is entirely likely that the invention, a business method patent, would have been invented without the patent incentive, rendering it of little value under Step 2 described above. eBay clearly profited off the product without having any right of exclusivity. The district court acknowledged that the patent "appears to rely upon a unique combination of non-unique elements present in prior art,"¹¹⁰ lending more support to this possibility. MercExchange might simply have been lucky in being the first to patent a method that would have inevitably come to the market, and eBay unlucky in using a method that was already patented. Whatever the value of an invention, if it does not need patent law to be disclosed to the public, it provides little in a quid quo pro exchange. It seems that the court, however accidentally, might have gotten this one right.

Perhaps the most relevant consideration in these cases should be findings of willful infringement. As discussed, the value of an invention to the public largely depends on the level of disclosure an invention provides, and whether it would have been created absent this disclosure. A finding of willful infringement suggests that the infringer (1) has taken advantage of that disclosure and benefited from it and (2) would not have invented it otherwise. While the MercExchange patent suggests that willful infringement should not be dispositive, it may be beneficial to use

¹⁰⁶ Sue Ann Mota, *EBay v. MercExchange: Traditional Four-Factor Test for Injunctive Relief Applies to Patent Cases, According to the Supreme Court*, 40 AKRON L. REV. 529, 533 (2007).

¹⁰⁷ See Urbanek, *supra* note 29, at 619.

¹⁰⁸ *Id.*

¹⁰⁹ Of course, if Woolston's invention was only a minor part of eBay's overall product, then its value might be questioned. Nevertheless, the facts can be interpreted either way.

¹¹⁰ *MercExchange, L.L.C. v. eBay, Inc.*, 500 F. Supp. 2d 556, 574 (E.D. Va. 2007).

it as a presumption of invention value, without further proof to the contrary.

In *z4 Technologies*, the District Court for the Eastern District of Texas denied an injunction for a patent for product activation software despite a finding of willful infringement.¹¹¹ Z4 did not practice its patent in competition with Microsoft, claiming that it failed to commercialize its product largely due to Microsoft's infringement.¹¹² The court found, however, that z4 and Microsoft did not directly compete. Z4 would usually license its patent to software producers, who would include the activation software in their software sales to prevent unauthorized use.¹¹³ Microsoft did not sell the software to other software producers, but used the activation software in its own Office and Windows programs.¹¹⁴ The court therefore found that the only licensing sales z4 lost due to Microsoft's infringement were sales to Microsoft, and a compulsory license was warranted due to the likelihood of irreparable harm and inadequacy of a legal remedy.¹¹⁵ The court found that an examination of the balance of hardships favored Microsoft, since an injunction forcing Microsoft to pull its infringing products and design around the patent would be a significant burden. Such an injunction would force Microsoft to deactivate the infringing component and result in widespread pirating of Microsoft products, causing "incalculable losses."¹¹⁶ Finally, the court found that the public interest favored Microsoft, given the public's dependency on its products.¹¹⁷

Some might view Z4 Technologies as a small start-up in a battle against the giant Microsoft. Z4 owned an invention so useful that Microsoft chose to willfully infringe the patent. The company depended on the invention to such an extent that deactivating it would result in countless amounts of piracy to its two main software products. The fact that Microsoft willfully infringed z4's technology suggests it found the product worth the risk of litigation, suggesting a high value in disclosure to the public. These facts suggest that the z4 invention significantly benefited the public, yet the court determined no injunction was needed because z4 and Microsoft did not compete. If we are to assume that an injunction would have resulted in a higher licensing fee than the

¹¹¹ *Z4 Techs., Inc. v. Microsoft Corp.*, 434 F. Supp. 2d 437, 438, 440-41 (E.D. Tex. 2006).

¹¹² *Id.* at 440.

¹¹³ *Id.*

¹¹⁴ *Id.*

¹¹⁵ *Id.* at 440-41.

¹¹⁶ *Id.* at 442-43.

¹¹⁷ *Id.* at 443-44.

forced royalties given by the court, then surely this decision goes against a quid pro quo analysis.¹¹⁸

VI. CONSIDERING THE QUID PRO QUO UNDER EQUITY

Even if *eBay* may be used inconsistently, to either balance the relative exchange between inventor and public or create a manifest imbalance, none of this matters if the quid pro quo is not a valid consideration with which to start. I suggest that an equitable analysis leaves room for consideration of the quid pro quo exchange because a valid goal of equity is to ensure that the patent right is as closely tailored to the value of an inventor's contribution as possible.

A. The Exchange Between Patentee and Public Is a Valid Consideration Under Equity

First and foremost, a consideration of the quid pro quo, and an after-the-fact tailoring of the patent right, are consistent with the goals of patent law. Not only is the quid pro quo a justification of Congress's right to grant patents, it is inherent in the requirements of patentability.¹¹⁹ Courts generally have no problem invalidating patents, or even patent claims, in furtherance of these requirements.

The first justification in equity we can find for such consideration is in Justice Kennedy's concurrence in the *eBay* decision itself. Justice Kennedy noted the "potential vagueness and suspect validity" of business method patents, and felt that such suspicion could warrant applying the four factor test.¹²⁰ However, Justice Kennedy's argument seems out of place. Normally, remedies are only issued after a finding of wrong-doing. In this

¹¹⁸ *But see* Bernard H. Chao, *After eBay, Inc. v. MercExchange: The Changing Landscape for Patent Remedies*, 9 MINN. J.L. SCI. & TECH. 543, 560-61 (2008) (arguing that the decision in *z4 Technologies* supports the motivations of the patent system by adequately compensating the patent owner relative to the value of his contribution). Chao's analysis, however, looked at the value of the invention at issue in terms of its relative contribution to Microsoft's overall product. This paper argues that another valid consideration would be a valuation of the invention as a whole regardless of its size relative to the infringing product. I do not suggest that *z4* came out incorrectly. It is possible that the equitable considerations between the parties did and should have outweighed any consideration of the quid pro quo exchange. *See infra* Part VI. I merely point out that such an exchange was neither mentioned nor supported in the decision.

¹¹⁹ *See* Chenette, *supra* note 47, at 229 ("The statutory patentability requirements maintain this quid pro quo.").

¹²⁰ *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 397 (2006).

case, the four factor test for whether an injunction should be issued should only come after a finding of patent infringement and/or patent validity. Yet, Justice Kennedy did not directly argue that business method patents are invalid. Nonetheless, we can view Justice Kennedy's note about business method patents, along with his comments about the potential for monetary damages to adequately compensate patent owners,¹²¹ as a recognition that an injunction can be denied in order to bring the reward of a patent more closely in line with its contribution. If a patent is vague enough to render it overly broad or is of suspect validity, then monetary damages may better reflect the value of the patentee's contribution than an injunction would.

Another source also suggests that the original contribution of an invention ought to be a legitimate equitable consideration. The nature of the patent right and the equitable doctrines that have developed around that right suggest that a consideration of the contribution of invention and disclosure, and its relation to the patent exchange, is legitimate under equity.

The patent right is not a moral right. Although "fruits of your labor" Lockean justifications for intellectual property abound,¹²² the tradition of the American patent system tells us that the patent right "is a special privilege designed to serve the public purpose." Therefore, "the public [has] a paramount interest in seeing that patent monopolies [are] free from fraud or other inequitable conduct and . . . kept within their legitimate scope."¹²³ Although the patent right is enforced through infringement actions against individuals, it is a right against the public, granted by the public, in exchange for invention and disclosure of knowledge. The paramount importance of the public interest in patent law can be seen in the equitable doctrines that surround it. Although classic equitable doctrines apply across all areas of law, patent law has developed doctrines unique to it, doctrines that often focus the equities not on the parties in suit, but on the patentee and the public.

"[E]quitable defenses [to patent infringement] include . . . unenforceability of the patent for fraud and inequitable conduct, misuse, and delay in filing suit resulting in laches or estoppel."¹²⁴ These defenses focus on the patentee's conduct before the public

¹²¹ *Id.* at 396.

¹²² See, e.g., Wendy J. Gordon, *A Property Right in Self-Expression: Equality and Individualism in the Natural Law of Intellectual Property*, 102 *YALE L.J.* 1533, 1541-45 (1993); Justin Hughes, *The Philosophy of Intellectual Property*, 77 *GEO. L.J.* 287, 296-330 (1988).

¹²³ *Precision Instrument Mfg. Co. v. Auto. Maint. Mach. Co.*, 324 U.S. 806, 816 (1945).

¹²⁴ *Mylan Pharms., Inc. v. Thompson*, 268 F.3d 1323, 1331 (Fed. Cir. 2001).

and its representative in the patent office.¹²⁵ Each can be seen as a method of ensuring that a patentee does not get what he does not deserve. In *United States v. American Bell*,¹²⁶ the Supreme Court found that the United States government had standing to sue for cancellation of a patent for fraud upon the PTO despite the fact that such arguments were also made available as defenses to accused infringers in the Revised Statutes.¹²⁷ The Court recognized that the real interest involved was the public's and refused to find that the public interest could only be vindicated by an accused infringer looking out for his own interests.¹²⁸ *American Bell* suggests that the public interest in the patent right does not end with the grant of a patent—the public has a right to ensure that the exchange, with its grant of a monopoly for invention and disclosure, is fair.

American Bell shows that while inequitable conduct before the PTO is an individual equitable defense, the primary interest is the public's interest, not the accused infringers'. The accused infringer is wronged by such conduct because he is part of the public and depriving him of the use of his device harms not only him but the general public as well. The Supreme Court's decision in *Precision Instruments* also shows that the balancing of the equities can focus on public and patentee in a consideration of inequitable conduct. The Court found that even more reprehensible conduct by the infringer was irrelevant when fraud had been conducted before the PTO because "[t]he public policy against the assertion and enforcement of patents claims infected with fraud and perjury is too great to be overridden by such a consideration."¹²⁹ Finally, inequitable conduct before the PTO does not require that the party attempting to enforce the patent that resulted from this conduct be the party acting inequitably.¹³⁰ This shows that the focus of inequitable conduct is on the patent, not the behavior of the party attempting to enforce his or her right.

The doctrine of patent misuse similarly considers more than just the equities between patentee and infringer, but also the equities between the patentee and public. For example, in *Morton Salt Co. v. G.S. Suppiger Co.*, the Court noted that an accused infringer need not be affected in any way by the antitrust-like actions of a patent holder in order to claim patent misuse as a

¹²⁵ These are not the only equitable defenses, and I am not trying to claim that all application of equity must involve the quid pro quo. There are certainly equitable doctrines that focus on the private parties involved, such as, assignment estoppel, prosecution laches, and unclean hands.

¹²⁶ *United States v. Am. Bell. Tel. Co.*, 128 U.S. 315 (1888).

¹²⁷ *Id.* at 370-71.

¹²⁸ *Id.* at 372.

¹²⁹ *Precision Instrument Mfg. Co.*, 324 U.S. at 819.

¹³⁰ *See Stark v. Advanced Magnetics, Inc.*, 119 F.3d 1551, 1556 (Fed. Cir. 1997) (concluding that an "innocent" inventor may not enforce a patent that has been tainted by inequitable conduct).

defense to infringement.¹³¹ As the Court explained, “successful prosecution of an infringement suit even against one who is not a competitor in such a sale is a powerful aid to the maintenance of the attempted monopoly of the unpatented article, and is thus a contributing factor in thwarting the public policy underlying the grant of the patent.”¹³² The Court did not give weight to the fact that the wrong of which the patent owner was accused had no effect on the infringer—the public, as well as the infringer, was harmed by enforcement of the patent.

“The patent law simply protects [the patentee] in the monopoly of that which he has invented and has described in the claims of his patent.”¹³³ Patent misuse is found precisely when a patentee has used his patent to secure a monopoly beyond the bounds of the right granted to him by the public. This misuse does not focus on actions taken towards the infringer, but instead on actions against the public. While a finding of inequitable conduct before the PTO is a finding of fraud before the public in the original exchange of information for monopoly, patent misuse is a finding of a violation of that exchange by taking more than what was given. Thus patent misuse again allows a consideration of the rights not between the parties in suit, but between the parties of the original exchange: patentee and public. Again, patent misuse shows that the significance of the equities between public and patentee do not end upon grant of a patent—the public can be harmed by abuse of a correctly granted right just as it can be harmed when that right is wrongfully procured.

Finally, the doctrine of prosecution laches¹³⁴ also underscores the relationship between public and patentee. Prosecution laches is found when a patentee acts to unreasonably delay prosecution of a patent, usually to extend its monopoly¹³⁵ or to broaden his patent claims to cover newly developed technology.¹³⁶ By delaying prosecution, the patentee gains an unfair advantage by securing a longer or larger monopoly than he

¹³¹ 314 U.S. 488, 493 (1942).

¹³² *Id.*

¹³³ *Motion Picture Patents Co. v. Universal Film Mfg. Co.*, 243 U.S. 502, 510 (1917).

¹³⁴ *See Symbol Techs., Inc. v. Lemelson Med., Educ. & Research Found.*, 277 F.3d 1361 (Fed. Cir. 2002) (acknowledging the defense of prosecution laches when a delay in prosecution prejudices intervening adverse public rights).

¹³⁵ *See Woodbridge v. United States*, 263 U.S. 50, 56 (1923) (finding a delay in “securing a patent that might have been had at any time in that period for the asking, and this for the admitted purpose of making the term of the monopoly square with the period when the commercial profit from it would be highest”).

¹³⁶ *See Webster Elec. Co. v. Splitdorf Elec. Co.*, 264 U.S. 463, 465 (1924) (“During all of this time [the] subject-matter [of the claims] was disclosed and in general use, and [the inventor] and his assignee, so far as [the] claims [at issue] are concerned, simply stood by and awaited developments.”).

should have received.¹³⁷ This practice “puts off the free public enjoyment of the useful invention,”¹³⁸ harming not just a potential infringer who might innocently invent an infringing device while the invention is suppressed, but the public as a whole. Thus, the doctrine of prosecution laches is another equitable decision based on the equities between the patentee and the public.

B. Equitable Doctrines Allow a Court To Tailor the Patent Right To Conform to the Exchange

Thus the equitable doctrines of patent law acknowledge that the patent is an exchange between the inventor and the public, and therefore consider the equities between them. These doctrines also do more: they allow a specific consideration of the accuracy of that exchange, analyzing the size and scope of the patent right in relation to the contribution of invention and disclosure. Each of the doctrines discussed above seem to ensure that the patent right is not stronger than the patentee’s contribution.

A finding of inequitable conduct before the PTO is usually based on deception relating to the patentability of a certain device.

Areas of particular concern are (1) the statutory oath of inventorship, particularly as it relates to the question of prior public use by the inventor or his assignee; (2) the citation of known relevant prior art; (3) the use of affidavits concerning the date of invention; and (4) the use of affidavits presenting factual evidence on patentability.¹³⁹

A patent may still carry a presumption of validity despite false statements made to the PTO if such statements were not material to patentability.¹⁴⁰ The danger of inequitable conduct is therefore found not in the simple deception of an officer of the public, but in the risk of “fraudulent patent monopolies”—monopolies for patentees who do not deserve it.¹⁴¹ Thus, the doctrine of inequitable conduct focuses on the fairness of the right granted to the patentee, ensuring that it cannot be exercised if it should not have been granted.

The best evidence of this fact can be found in the Third Circuit’s decision in *In re Multidistrict Litigation Involving Frost Patent*.¹⁴² Although there was a finding of inequitable conduct, the conduct was not so egregious as to bar enforceability of the patent

¹³⁷ *Woodbridge*, 263 U.S. at 56.

¹³⁸ *Id.*

¹³⁹ 6 CHISUM ON PATENTS § 19.03 (2008).

¹⁴⁰ *See* *Corona Cord Tire Co. v. Dovon Chem. Corp.*, 276 U.S. 358, 374 (1928).

¹⁴¹ *See* *Precision Instrument Mfg. Co. v. Auto. Maint. Mach. Co.*, 324 U.S. 806, 818 (1945) (explaining the public interest in ensuring that inequitable conduct does not go undetected).

¹⁴² 540 F.2d 601 (3d Cir. 1976).

as a whole, and the court declared the patent enforceable except as to those aspects of the claim relating to the inequitable conduct.¹⁴³ In doing so, the Third Circuit punished the patentee for lying to the PTO and ensured that the patentee's right did not go beyond what he had actually contributed to the public. This shows an equitable doctrine resulting not in the *denial* of the patent right, but the tailoring of it to more accurately reflect the contribution of invention and disclosure.

As mentioned above, patent misuse is found when a patentee uses his right to gain a monopoly that extends beyond the scope of his patent. This is in violation of the patent exchange because the patentee is taking more from the public than what was meant to be given. The Patent Misuse Reform Act of 1988 added to the Patent Act by declaring:

No patent owner otherwise entitled to relief for infringement or contributory infringement of a patent shall be denied relief or deemed guilty of misuse or illegal extension of the patent right by reason of his having . . . refused to license or use any rights to the patent [or] conditioned the license of any rights to the patent or the sale of the patented product on the acquisition of a license to rights in another patent or purchase of a separate product, unless, in view of the circumstances, the patent owner has market power in the relevant market for the patent or patented product on which the license or sale is conditioned.¹⁴⁴

Patent misuse is not found simply when a patentee uses his patent in a way contrary to the public interest (by refusing to practice or limiting the availability of his product); it is *only* found when such use goes beyond the patentee's original right, when the patentee uses market power in one area to gain a market advantage in another where such a right was not granted.

Similar to a finding of inequitable conduct, a finding of patent misuse does not completely remove the patent right. It simply allows the court to tailor the right to what the patentee should have, or originally did, receive. "[T]he courts will not aid a patent owner who has misused his patents to recover any of their emoluments accruing during the period of misuse or thereafter until the effects of such misuse have been dissipated, or 'purged'."¹⁴⁵ If the effects of misuse have been purged, a patentee can recover damages, but only for infringement that occurred after

¹⁴³ *Id.* at 611 ("Under the totality of the circumstances, we have concluded that this record requires a denial of enforcement of *Patent No. 3,072,582* only to the extent that its claims purport to apply to flexible polyether urethane foams.").

¹⁴⁴ Pub. L. 100-73, 102 Stat. 4674 (codified at 35 U.S.C. § 271(d)(4), (5)).

¹⁴⁵ *U.S. Gypsum Co. v. Nat'l Gypsum Co.*, 352 U.S. 457, 465 (1957).

such a purge is deemed complete.¹⁴⁶ In *Gypsum*, the Supreme Court found that a denial of enforcement of a patent because of old misuse, the effects of which have been purged, would constitute “an unwarranted penalty” on the patentee.¹⁴⁷ Denial of enforcement is a method of ensuring that a patentee cannot use his patent beyond its original scope. Again, these cases demonstrate that equitable doctrines can be used not just to deny the patent right, but to force it to conform to the scope of the original exchange. A finding of patent misuse prevents a patentee from profiting from the unwarranted expansion of his patent right by denying him the monopoly and profits from infringers until he has returned the right to what the public originally intended it to be.

The doctrine of prosecution laches can also be understood as specifically enforcing the balance of the quid pro quo. Prosecution laches occurs when a delay in prosecution results in new innovation being encompassed.¹⁴⁸ While in some situations these later innovations are encompassed through interference proceedings, they can conceivably make it to market occasionally, which suggests that invention without a patent is possible and therefore the inventor’s invention and disclosure is really a small contribution to the public. Furthermore, prosecution laches comes into play when the delay in prosecution results in an expansion of the monopoly to include a right to an invention that the inventor did not contribute. Delaying prosecution may also confer the advantages of a monopoly at a time when the device in question is more entrenched in the market and therefore corresponds to a patent that is more valuable.¹⁴⁹ Since *Woodbridge* involved a patent application *undisclosed* to the public,¹⁵⁰ it may imply a troll-like situation in which the invention would have been created otherwise and the patentee only patents the device to pounce on unsuspecting infringers.

There is one area of law that justifies this consideration in the most direct manner: the doctrine of equivalents. In *Hilton Davis Chemical Co. v. Warner-Jenkinson Co.*, the Federal Circuit declared the doctrine of equivalents to be a question for the jury, and therefore not an equitable consideration.¹⁵¹ Prior to this decision, however, the doctrine of equivalents was occasionally considered an equitable doctrine.¹⁵² If it does have its roots in equity, the doctrine gives direct justification for the use of equity to

¹⁴⁶ *E. Venetian Blind Co. v. Acme Steel Co.*, 188 F.2d 247, 254 (4th Cir. 1951).

¹⁴⁷ 352 U.S. at 474.

¹⁴⁸ *Webster Elec. Co. v. Splitdorf Elec. Co.*, 264 U.S. 463, 466 (1924).

¹⁴⁹ *Woodbridge v. United States*, 263 U.S. 50, 56 (1923).

¹⁵⁰ *Id.*

¹⁵¹ 62 F.3d 1512 (Fed Cir. 1995) (en banc).

¹⁵² See Jennifer D. Threadgill, Casenote, *Equivocating Between Equivalents and Equity in Patent Infringement: Hilton Davis Chemical Co. v. Warner-Jenkinson Co.*, 51 ARK. L. REV. 191 (1998).

correctly tailor the patent right to the original contribution. The doctrine of equivalents is designed to give the patentee the right not only to the literal claims of his invention, but also to anything that is equivalent.¹⁵³ Otherwise, a patent would be rendered “a hollow and useless thing” by someone who makes only inconsequential changes to a patented device to bring it just outside the area of literal infringement (defined strictly by the words of a claim) while piggy-backing on the patentee’s contribution.¹⁵⁴ The doctrine of equivalents is a direct example of courts acting to tailor a patent right to the actual contribution of the invention.

Some courts, in applying the doctrine of equivalents, have recognized this tailoring almost explicitly, noting that the doctrine of equivalents should grant greater scope in accordance with the value of the contribution to the art.¹⁵⁵ If the doctrine of equivalents can stand as an example of an equitable doctrine, these cases would seem to indicate that tailoring the breadth of patent protection to the extent of an invention’s contribution is a valid goal of equity. Moreover, these cases, as well as the doctrine of equivalents itself, show that courts do have the power to decide the scope of the patent right after it has been granted.

Finally, whether or not the doctrine of equivalents can be viewed as falling under equity, a patentee can be denied use of the doctrine under prosecution history estoppel.¹⁵⁶ Prosecution history estoppel is triggered when a patentee tries to invoke the doctrine of

¹⁵³ *Winans v. Denmead*, 56 U.S. (15 How.) 330 (1853) (establishing the doctrine). *But cf.* 1 CHISUM ON PATENTS: GLOSSARY. (“The doctrine can work in reverse, excluding an accused device that falls within the literal language of a claim but operates in an essentially different manner.”)

¹⁵⁴ *Graver Tank & Mfg. Co. v. Linde Air Prods. Co.*, 339 U.S. 605, 607 (1950). *See* 1 CHISUM ON PATENTS: GLOSSARY.

¹⁵⁵ *See, e.g., Sarkisian v. Winn-Proof Corp.*, 686 F.2d 671 (9th Cir. 1981) (“Since the purpose of the doctrine of equivalents is to secure for the inventor a just reward for his or her invention, patents which represent important and significant advances in the relevant technology are entitled to a broad range of equivalents; similarly, patents which represent a rather small advance in a crowded field are entitled to a correspondingly narrow range of equivalents.”); *Nelson v. Batson*, 322 F.2d 132, 135 (9th Cir. 1963) (“[T]he degree of protection afforded beyond the language of the claims will vary directly with the value of the inventor’s contribution to the art.”); *Royal Typewriter Co. v. Remington Rand, Inc.*, 168 F.2d 691, 692 (2d Cir. 1948) (“All patents are entitled to its benefit to an extent, measured on the one hand by their contribution to the art, and on the other by the degree to which it is necessary to depart from the meaning to reach a just result.”).

¹⁵⁶ *See, e.g., Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 733-34 (2002) (“The doctrine of equivalents allows the patentee to claim those insubstantial alterations that were not captured in drafting the original patent claim but which could be created through trivial changes. When, however, the patentee originally claimed the subject matter alleged to infringe but then narrowed the claim in response to a rejection, he may not argue that the surrendered territory comprised unforeseen subject matter that should be deemed equivalent to the literal claims of the issued patent.”).

equivalents for a claim that was changed for reasons of patentability.¹⁵⁷ Prosecution history estoppel is clearly equitable in nature,¹⁵⁸ and it is a prime example of a court reducing the reach of a patent to accord with what the patentee actually contributed in the exchange. The doctrine prevents the patent from extending to devices and inventions that were not part of the original contribution and are only accidentally covered by the words of the patent. Thus, even if the doctrine of equivalents can be considered as having its origins in law, not equity, the doctrine of prosecution history estoppel supports the point that equity can be used to ensure that the patent right is tailored to what is given for it, not for what the words of the patent seem to cover.

VII. FITTING THE QUID PRO QUO INTO THE *EBAY* ANALYSIS

As one can see, equity leaves room to tailor the patent right to better balance the quid pro quo, demonstrating that such tailoring can be a legitimate part of the *eBay* analysis. However, one still must account for why equity considerations are better than addressing the patent scope directly. As discussed, equity is not the only way to tailor the patent right to the contribution. The doctrine of equivalents, which wavers between law and equity, is perhaps the best example of such tailoring. However, law forces courts to follow the words of a statute, and so in turn, the words and meaning of a patent. Although a patent right may be tailored to the contribution by ensuring that the meaning of the claims of a patent is interpreted to parallel the invention's actual contribution, this strategy can only go so far. Equity and *eBay* can act as a supplement to this tailoring. Equity may be a way to tailor the patent right beyond what can legitimately be done under law, limiting the patent to not just the words and meaning of its claims, but also limiting its value to what it really contributes.

As discussed, courts relying on *eBay* to date have not considered the value of the contribution of an individual patent when granting or denying an injunction, and some cases suggest

¹⁵⁷ 5A CHISUM ON PATENTS § 18.05 (“The estoppel applies most frequently when an applicant amends or cancels claims rejected by an examiner as unpatentable in light of the prior art. Some decisions extend estoppel to amendments entered for other purposes. Some decisions also extend estoppel to an argument by a patent applicant even when the argument is not accompanied by a claim amendment.”).

¹⁵⁸ See, e.g., *Builders Concrete v. Bremerton Concrete Prods. Co.*, 757 F.2d 255, 258 (Fed. Cir. 1985) (“This doctrine is an equitable tool for determining the permissible scope of patent claims.”); *Laitram Corp. v. Cambridge Wire Cloth Co.*, 226 U.S.P.Q. (BNA) 289, 294 (D. Md. 1985) (“It really is not a complicated doctrine; it is no more than a variant of the common law notion of estoppel, that is, the equitable principle that you cannot come into court asserting a position that by your conduct or words at another time you have abandoned.”).

eBay can either be used to maintain or to disturb the balance of the quid pro quo. I suggest two ways for courts to bring a quid pro quo consideration into *eBay*.

A. The Quid Pro Quo in All Four Factors

The most radical method of considering the value of an invention's contribution under the *eBay* factors is to interpret each individual factor in light of such value. Courts today measure the loss to a patentee from the denial of an injunction by the economic gain a patentee could have received *with* that injunction. Courts tend to focus on the profits to an individual or a corporation, comparing the two possible outcomes: injunction or damages. One method of considering the quid pro quo in an *eBay* decision would be to include a different comparison between the value of the patent when it includes the right to exclude and the possible effect on the value of the patent if the injunction is denied. It is likely that denial of an injunction will have an effect on the future valuation of an individual patent by encouraging infringement and reducing bargaining power for licenses. Courts should consider this reduction in value as part of the loss. For instance, when considering irreparable harm, one can look at the original contribution of an invention to see if denial of an injunction brings the patent more in line with the patentee's contribution (really no harm at all) or results in severe under-valuation of that contribution (irreparable harm). Similarly, in assessing the adequacy of monetary damages, one could compare the overall contribution of the invention with the damages for this instance of infringement. A patent tied to a valuable contribution can weigh in favor of the patentee when measuring a balance of hardships, while a patent with questionable contribution may weigh against the patentee, given the patentee's previously unwarranted benefit from the patent.

B. Using Public Interest to Consider the Quid Pro Quo

An easier approach, and the one I ultimately advocate, is to locate these considerations in the public interest factor of *eBay*, giving this factor significantly more weight than it has previously been given. It is surprising that courts have not focused on the public interest factor more strongly, given a history of decisions stressing the importance of the public interest in patent law. Perhaps courts do not know how to weigh the factor. Some courts have favored the public interest policy of enforcing valid patents,¹⁵⁹ while others have found that the public interest weighs

¹⁵⁹ See, e.g., *Commonwealth Scientific & Indus. Research Org. v. Buffalo Technology, Inc.*, 492 F. Supp. 2d 600, 607 (E.D. Tex. 2007); *Transocean Offshore Deepwater Drilling, Inc. v. GlobalSantaFe Corp.*, No. 03-2910, 2006

in favor of allowing an infringer to continue to infringe.¹⁶⁰ Courts are understandably confused about how to weigh the public interest because the two countervailing interests directly conflict. A consideration of the quid pro quo could provide some guidance on how to weigh the public interest to bring the two together. The public has an interest both in ensuring that it does not give more than it needs to receive an invention and its disclosure and in not giving so little that it inadequately compensates contributing inventors.

A quid pro quo approach to considering the public interest would also allow courts to properly consider willful infringement, a significant factor that has no clear place under *eBay*. The fact that an infringer infringed knowingly should certainly matter under equity. In fact, a parallel to real property suggests that the issue should be dispositive: bad faith building encroachment generally allows an injunction where normally monetary damages are adequate.¹⁶¹ It is clear, however, that courts do not take this view, and it is understandable why they do not. Knowledge of building encroachment is direct evidence that the actor is freeriding on his neighbor's property. Willful patent infringement does not necessarily mean that an infringer is free-riding on a patent owner in the same way. A diligent company may come across a patent after it has fully developed its own product, thereby gaining nothing from the disclosure of the invention. A quid pro quo analysis allows us to consider willful infringement while also allowing us to reject willfulness as dispositive where, in fact, it should not be. That is, willfulness will create a presumption of value that is nevertheless rebuttable by evidence that the disclosure of the invention did not contribute to society nor to the infringer's actions in any meaningful way. Courts can allow continued infringement for innocent infringers who have built companies or products important to the public—without upsetting the balance of the quid pro quo—by viewing innocent infringement as evidence that the invention would have been created and disclosed even absent the patent. At the same time, courts should find in willful infringement a presumption of a valuable contribution and act accordingly.¹⁶² At times when the contribution of an invention is less clear or more questionable, a court can reject consideration of

U.S. Dist. LEXIS 93408, at *25-26 (S.D. Tex. 2006); *Smith & Nephew, Inc. v. Synthes (U.S.A.)*, 466 F. Supp. 2d 978, 985 (W.D. Tenn. 2006).

¹⁶⁰ *Z4 Techs., Inc. v. Microsoft Corp.*, 434 F. Supp. 2d 437,443-44 (E.D. Tex. 2006).

¹⁶¹ Shyamkrishna Balganes, *Demystifying the Right To Exclude: Of Property, Inviolability, and Automatic Injunctions*, 31 HARV. J.L. & PUB. POL'Y 593, 646 (2008).

¹⁶² See Everding, *supra* note 29, for an argument that willful infringement should be more dispositive of the decision to grant or deny an injunction.

the quid pro pro altogether and continue with the current analysis for granting and denying injunctions.

A public interest in the enforcement of valid patents is too broad to be of any use in the case-by-case consideration of an injunction because it will always weigh in favor of an injunction, but will never be affected by unique circumstances. Efforts to provide a more specialized consideration of the public interest—by considering the patent and the infringer and then finding public interest whenever an infringer or the invention itself is valuable to the public—can directly go against the purposes of patent law because it denies the patent right whenever the public wants the invention to enter the public domain, even before the patent has reached its full term. A consideration of the quid pro quo exchange would bring these two considerations together, still ensuring that the public interest is properly served by protecting valid patents, but doing so selectively, allowing courts to consider the real value of the invention before deciding whether the patent owner should have an absolute right to exclude. Furthermore, considering the quid pro quo exchange in the public interest factor still allows a clear consideration of the equities between the parties through the other factors. Although the patent exchange is important, an injunction is still an order against a private party in favor of another, and a consideration of the equities between them is warranted in any case involving a permanent injunction under patent law or any other.¹⁶³ Though it is a valid consideration to tailor the exchange under equity, it does not mean that courts should ignore the fact that a suit for infringement is a private action between private individuals. As Justice Kennedy noted, monetary remedies can be adequate compensation for patent infringement not only because of the value and nature of the invention, but also because of the parties involved and their intentions.¹⁶⁴

Finally, if courts give more significance to the public interest factor in *eBay* and judge this factor in accordance with the original patent exchange, *eBay* may act as a better, more selective tool against patent trolls. When patent trolls or non-practicing entities enforce patents for valuable inventions against willful infringers, the patent system should vindicate their rights, especially when the invention is a basic building block for industry or science. The real worry comes when these patent trolls or non-practicing entities try to enforce questionable patents that contribute only trivially to an overall product, thereby holding up a more worthwhile venture. Thus, it is important for courts to more accurately identify the “trolls” from the “non-practicing entities.” Courts can do this not only by evaluating an invention’s

¹⁶³ See, e.g., *Weinberger v. Romero-Barcelo*, 456 U.S. 305, 311-13 (1982); *Amoco Prod. Co. v. Gambell*, 480 U.S. 531, 542 (1987).

¹⁶⁴ *eBay, Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 396 (2006).

contribution to the infringing invention, but also by looking at its contribution to society as a whole and ensuring that their decision maintains or improves the balance of the quid pro quo. To do so would give effect to both concurring opinions in *eBay*, acknowledging the changing landscape of patent enforcement while still respecting the value and emphasis historically placed on the right to exclude.

VIII. CONCLUSION

eBay v. MercExchange changes the landscape of patent enforcement by taking away the absolute certainty of a permanent injunction for infringement. The possibility that a patent could be denied reduces the value of a patent by taking away the right to exclude and the bargaining chip that comes with it. Although many view the decision as a way to address the questionable actions of modern patent trolls, it will also have widespread effects in other areas. To keep this effect in line with the motivations and origins of the patent systems, courts should consider not just of the equities between the private parties, but also the equities involved in the original patent exchange. By assessing the value of the contribution of an invention, courts can ensure that *eBay* is used to maintain a well-functioning patent system—giving patent owners precisely what they deserve for what they have given to the public.