Trolling for Trolls: The Pitfalls of the Emerging Market Competition Requirement for Permanent Injunctions in Patent Cases Post-eBay

Benjamin H. Diessel
University of Michigan Law School

Follow this and additional works at: https://repository.law.umich.edu/mlr

Part of the Antitrust and Trade Regulation Commons, Courts Commons, Intellectual Property Law Commons, and the Law and Economics Commons

Recommended Citation
Available at: https://repository.law.umich.edu/mlr/vol106/iss2/4

This Note is brought to you for free and open access by the Michigan Law Review at University of Michigan Law School Scholarship Repository. It has been accepted for inclusion in Michigan Law Review by an authorized editor of University of Michigan Law School Scholarship Repository. For more information, please contact mlaw.repository@umich.edu.
NOTE

TROLLING FOR TROLLS: THE PITFALLS OF THE EMERGING MARKET COMPETITION REQUIREMENT FOR PERMANENT INJUNCTIONS IN PATENT CASES POST-eBAY

Benjamin H. Diessel*

In eBay v. MercExchange, a unanimous Supreme Court announced that a new four-factor test should be employed by district courts in determining whether to award an injunction or damages to an aggrieved party whose intellectual property has been infringed. In the context of permanent injunctions in patent cases, district courts have distorted the four-factor test resulting in a "market competition requirement." Under the new market competition requirement, success at obtaining an injunction is contingent upon a party demonstrating that it is a market competitor. After consistent application in the first twenty-five district court cases post-eBay, the market competition requirement is becoming an entrenched doctrine. However, the divergent legal standards used by district courts turning on market competition contravene the Supreme Court's holding that courts should not apply the four-factor test in a manner that makes the injunctive remedy unavailable based on broad classifications. The market competition requirement may solve some of the problems resulting from holdup by so-called "patent trolls," but at a cost potentially too high to bear. The market competition requirement may insulate inefficient markets from meaningful competition and decrease incentives to innovate for individual self-made inventors, who drive a large segment of patenting activity. Because the market competition requirement is without foundational support from eBay and is of questionable utility in incentivizing innovation, its continued use is a cause for serious concern.

* J.D. candidate, December 2007; M.S. Computer Science and Engineering, May 2008. Thank you to Professor Omri Ben-Shahar for his guidance in writing this Note, Professor Joseph Scott Miller for keeping me abreast of new cases through his blog, The Fire of Genius, Jeanne Long and Andrea Loh, my Note Editors, and the entire Notes Office for their helpful feedback, Smita for her inspiration and support, and my parents for all of their love and encouragement.
# Table of Contents

**INTRODUCTION** .................................................................................................................. 307

**I. SURVEY OF POST-EBAY DISTRICT COURT CASES:**

The Emerging “Market Competition Requirement” …… 309

A. Inventive Area.................................................................................................................. 309

B. Jurisdiction....................................................................................................................... 309

C. Willfulness ....................................................................................................................... 309

D. Market Competition and Licensing .............................................................................. 309

   1. Plaintiffs Denied Injunctions Are Not Market Competitors and Are Willing Licensors.... 309

   2. Plaintiffs Granted Injunctions Do Practice Their Patent and Are Market Competitors .... 309

**II. IS THE MARKET COMPETITION REQUIREMENT CONSISTENT WITH EBAY?** ......................................................... 309

A. The Market Competition Requirement Employs “Broad Classifications”: Different Implicit Standards of Review Under the Four-Factor Test Result in a Bar to Injunctions for Non-Practicing and Non-Competing Plaintiffs.......................................................... 309

   1. An Impossible Standard: Courts Use Different Standards Based on Plaintiffs’ Market Presence, Resulting in a Per Se Denial of Injunctions to Non-Market Competitors .................................................. 309

   2. Courts Selectively Apply Chief Justice Roberts’s Principle that Loss of Right to Exclude can be Irreparable, Resulting in Inconsistent Irreparable Injury Analysis .......................................................... 309

B. District Courts are “Trolling for Trolls” but Are Ignoring Equitable Considerations .......................................................... 309

C. The Market Competition Requirement as Causation ……. 309

**III. IS THE MARKET COMPETITION REQUIREMENT DESIRABLE?**…. 309

A. The Market Competition Requirement Reduces the Holdup Problem, but Poses Additional Problems that May Prevent Ex Post Allocative Efficiency ……… 309

   1. The Holdup Problem in Patent Law .......................................................... 309

   2. The Market Competition Requirement Addresses the Holdup Problem and Eliminates Some of the Problems Associated with Holdup .......................................................... 309

   3. Overinclusiveness of the Market Competition Requirement and Effects on Competition May Offset Some of the Ex Post Gains Achieved by Reducing the Holdup Problem ……… 309

B. The Market Competition Requirement Endangers Ex Ante Productive Efficiency and Diminishes Incentives to Innovate .................................................................................. 309

**CONCLUSION** .................................................................................................................. 309
INTRODUCTION

In response to the perceived "holdup problem" created by the threat of injunction in patent litigation brought by patent trolls, 2 the availability of the injunctive remedy in patent law has recently been increasingly scrutinized. 3 Just as legislative reform of the injunctive remedy in patent law was gaining steam, 4 the Supreme Court addressed the issue head on in eBay v. MercExchange. 5 The Court, in a unanimous eight-justice 6 opinion authored by Justice Thomas, overruled the Federal Circuit’s application of a sui generis "general rule" for patent law that an injunction will issue upon a

1. The holdup problem exists when a party makes an inefficient threat of litigation just to obtain bargaining power. See, e.g., N. Ind. Pub. Serv. Co. v. Carbon County Coal Co., 799 F.2d 265 (7th Cir. 1986) (denying specific performance because it would produce an inefficient result that the plaintiff was seeking only for bargaining power); see also Ian Ayres & Kristin Madison, Threatening Inefficient Performance of Injunctions and Contracts, 148 U. Pa. L. Rev. 45 (1999) (discussing holdup in the context of threats to perform inefficiently).

2. Patent trolls have been described in many ways. One popular way to describe patent trolls is to emphasize their lack of commercialization and their business model of thriving off of litigation and settlements. See Steve Seidenberg, Troll Control: The Supreme Court’s eBay Decision Sets Back Pesky ‘Patent Trolls’ or American Innovation, Depending Upon Which Side You’re On, 92 A.B.A. J. 50, 51 (2006) (noting that patent trolls have been described as "businesses that produce no products or services and have the sole purpose of obtaining money by licensing patents they own and winning infringement lawsuits against others"). But see Terrence P. McMahon et al., Who is a Troll? Not a Simple Answer, 7 SEDONA CONF. J. 159, 163 (2006) ("[T]he line between troll and non-troll remains unclear."). This has caused renewed focus on finding a new definition that provides greater clarity. McMahon and his coauthors have proposed a new definition: (1) “First, a patent troll would be a company that receives no benefit from excluding others because it does not have a competitive product nor does it plan to develop one,” id. at 166, and (2) “Second, a patent troll’s tactic would be to use threat of litigation and its associated costs to force others into licensing agreements without closely scrutinizing the validity and strength of the patent,” id. I will use the term “patent troll” to encapsulate the colloquial understanding as described by Steve Seidenberg above. It is important, however, to distinguish from patent trolls individual small-scale inventors who may wish to license their inventions. See infra text accompanying notes 207–208, 240–243. For recent scholarship discussing patent trolls post-eBay, see, in general, Leslie T. Grab, Recent Development, Equitable Concerns of eBay v. MercExchange: Did the Supreme Court Successfully Balance Patent Protection Against Patent Trolls?, 8 NOTRE DAME L. REV. 1809 (2007) (analogizing the current patent troll to the gilded age equivalent, the "patent shark"); Rebecca A. Hand, eBay v. MercExchange: Looking at the Cause and Effect of a Shift in the Standard for Issuing Patent Injunctions, 25 CARDozo ARTS & ENT. L.J. 461, 473–79 (2007); Damian Myers, Note, Reeling in the Patent Troll, 14 J. INTELL. PROP. L. 333 (2007).


6. This case was decided without Justice O’Connor, before Justice Alito was confirmed.
showing of patent validity and infringement absent "exceptional circumstances." The central holding reads as follows:

According to well-established principles of equity, a plaintiff seeking a permanent injunction must satisfy a four-factor test before a court may grant such relief. A plaintiff must demonstrate: (1) that it has suffered an irreparable injury; (2) that remedies available at law, such as monetary damages, are inadequate to compensate for that injury; (3) that, considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted; and (4) that the public interest would not be disserved by a permanent injunction.

The Court was clear that neither the district court's nor the Federal Circuit's approach to injunctions was appropriate. The district court's application of its newly created four-factor test in denying MercExchange an injunction was flawed because it allowed the decision to turn on plaintiff's "willingness to license its patents" and "lack of commercial activity in practicing the patents." The Federal Circuit's general rule of awarding an injunction, reversing the district court, was also flawed. The short, unanimous opinion, however, gave no bright-line rules and few guideposts to district judges. It emphasized instead that awarding injunctions was up to the discretion of trial courts, subject to the ground-rule that discretion be "exercised consistent with traditional principles of equity."

But while the Supreme Court unanimously agreed that equity demanded vesting discretion in district judges, the justices split on how the four-factor test should be applied. Chief Justice Roberts, joined by Justices Scalia and Ginsburg, argued that application of the four-factor test by district judges should be informed by substantial Federal Circuit precedent regarding injunctions, and that the bounds of discretion should be circumscribed by reference to the principle of stare decisis. Chief Justice Roberts's concurrence showed that at least three of the seven concurring Justices thought courts should apply the four-factor test in a manner more in keeping with

---

8. eBay Inc., 126 S. Ct. at 1839.
9. Id. at 1840 (quoting MercExchange, L.L.C. v. eBay Inc., 275 F. Supp. 2d 695, 712 (E.D. Va. 2003)).
10. eBay Inc., 126 S. Ct. at 1840.
11. Id. at 1841.
12. Id. (Roberts, C.J., concurring, joined by Scalia & Ginsburg, JJ.); id. at 1842 (Kennedy, J., concurring, joined by Stevens, Souter & Breyer, JJ.); see also Hand, supra note 2, 464–65 (2007) (summarizing the opposite stances of the two concurring opinions).
13. eBay Inc., 126 S. Ct. at 1841 (Roberts, C.J., concurring) ("At the same time, there is a difference between exercising equitable discretion pursuant to the established four-factor test and writing on an entirely clean slate.").
14. Id. at 1841–42 ("Discretion is not whim, and limiting discretion according to legal standards helps promote the basic principle of justice that like cases should be decided alike." (quoting Martin v. Franklin Capital Corp., 126 S. Ct. 704, 710 (2005))).
司法部法官金斯伯格法官，由法官斯蒂文斯、苏特和布莱耶法官，认为历史授予的禁令在现代案件中应该仅用于事实相似的现代案件。他敦促法院在适用禁令时考虑损害赔偿，而非专利权人只是为了谈判优势而索取禁令。

法官们将被迫在两篇附议意见中寻求指导，以便弥补一致决定未就如何应用四因素测试的细节进行深入讨论。但在寻求指导时，法官们不应过于依赖任何一种标准。两篇附议意见的主张非常不同，这意味着在面对同样的事实情况时，法院可能会根据首席法官罗伯茨或金斯伯格法官的标准得出不同的结论。事实上，法院的裁判行为可能会被隐含危险，即过于依赖附议意见的标准而忽略了四因素测试，这可能会导致法官在决定禁令时过于依赖事实上的轻微差异，从而偏离了四因素测试的基本框架。

这本文献分析了在专利案件中，在eBay之后对市场竞争力要求的使用，结论是这种市场竞争力要求与eBay判决相矛盾，是不合理的政策，应被废弃。第I部分对所有适用四因素测试的专利案件进行审查，确认了法院在永久禁令申请中继续将商业化和市场竞争力纳入必要条件。
an injunction. Part I concludes that district judges have created and employed a "market competition requirement," or phrased more colloquially, district judges are essentially "trolling for trolls." Part II explores whether one can reconcile district courts' adoption of a market competition requirement with the Supreme Court's unanimous opinion, but ultimately finds a lack of support for the market competition requirement in eBay. Part III analyzes the utility of the market competition requirement as a tool for combating ex post losses due to holdup by patent trolls, and argues that use of the market competition requirement may itself cause losses in allocative efficiency due to overinclusiveness and reduced competition. Part III argues further that the market competition requirement threatens to harm incentives to innovate, especially for small-scale inventors. This Note concludes that courts should dismantle the market competition requirement as lacking persuasive jurisprudential or economic support.

I. SURVEY OF POST-EBAY DISTRICT COURT CASES: THE EMERGING "MARKET COMPETITION REQUIREMENT"

Practitioners and commentators have suggested, based on the early round of district court cases, that direct competition is the key to obtaining an injunction. Texas practitioners Robert J. Garrey and John M. Jackson initially analyzed the first four Eastern District of Texas cases applying the eBay standard and made the preliminary observation that "it appears that plaintiffs that use their patents to produce goods and services are far more likely to obtain injunctive relief against competitors adjudged to infringe their patents than are plaintiffs who merely license their patents." Other commentators have also posited that direct competition determines whether an injunction will be granted. Jeremy Mulder surveyed five district court cases post-eBay and suggested a predictive model that "the type of competition between the plaintiff-patentee and the defendant-infringer determines whether district courts grant permanent injunctions in patent cases." Rebecca Hand examined four Fifth Circuit post-eBay cases and argues that competition was the deciding factor in granting an injunction, footnoting non-Fifth Circuit cases that appear to follow the same rule. Professors Lemley and Weiser advocate that courts should be wary of granting injunctions to a patent holder who is not a direct competitor of

20. For a discussion of other commentators hypothesizing a similar rule based on initial post-eBay cases, see infra notes 21–24 and accompanying text.


23. Hand, supra note 2, at 479–84 (arguing that four Fifth Circuit cases decided after eBay stand for the proposition that direct competition is the deciding factor and noting non-Fifth Circuit cases following the same rule).
the defendant and find that an early Eastern District of Texas case supports this position.24

This Part tests the hypothesis of these practitioners and commentators by examining a larger set of every patent case for which permanent injunctions were granted and denied post-eBay25 and confirms that commercialization within the invented area covering the patent determines whether an injunction will be granted.26 In addition to expanding the set of cases considered, this Part provides a new framework for emphasizing the significance of competition by first analyzing factors such as inventive area, jurisdiction, willfulness—which this Note finds non-controlling—before finding commercialization and licensing activity to be dispositive. As of the writing of this Note, twenty-five district court cases have applied the four-factor test in determining whether to grant or deny a permanent injunction in cases where plaintiffs have shown patent infringement and patent validity. Out of these cases, courts denied injunctions to seven plaintiffs27 and granted injunctions to eighteen plaintiffs.28

The following tables present data relevant to this hypothesis, including inventive area, whether the plaintiff had commercialized the invention covered by the patent and used it to compete in the market, whether the plaintiff was willing to license the patent or had tried to license it to the defendant, and whether the court found willful infringement. The tables group cases together based on whether the court granted or denied the injunction. A discussion of the results presented in the tables—framed around inventive area, jurisdiction, willfulness, and market competition and licensing—directly follows.

24. Mark A. Lemley & Philip J. Weiser, Should Property or Liability Rules Govern Information?, 85 Tex. L. Rev. 783, 799–800 (2007) ("[C]ourts should cast a skeptical eye at claims for injunctive relief where the patent owner is not a direct competitor of the defendant . . . .").


26. District court cases applying the four-factor test in other contexts such as copyright, trademark, and preliminary injunctions are beyond the scope of this Note, which deals specifically with permanent injunctions in patent cases.

27. See infra Table 1.

28. See infra Table 2.
# Table I
## CASES DENYING INJUNCTIONS

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>z4 Techs., Inc. v. Microsoft Corp.</td>
<td>Product activation / anti-piracy software</td>
<td>NO</td>
<td>YES</td>
<td>N/A</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>Finisar Corp. v. DirecTV Group, Inc.</td>
<td>Data transmission (electronic television program guide)</td>
<td>NO</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>Paice LLC v. Toyota Motor Corp.</td>
<td>Hybrid powertrains for vehicles</td>
<td>NO</td>
<td>YES</td>
<td>PROBABLY</td>
<td>NO</td>
<td></td>
</tr>
<tr>
<td>Voda v. Cordis Corp.</td>
<td>Angioplasty guide catheter</td>
<td>NO</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>Sundance, Inc. v. DeMonte Fabricating Ltd.</td>
<td>Tarp covering</td>
<td>NO</td>
<td>YES</td>
<td>YES</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>IMX, Inc. v. LendingTree, LLC</td>
<td>Method and system for trading loans</td>
<td>N/A</td>
<td>YES</td>
<td>N/A</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>Praxair, Inc. v. ATMI, Inc.</td>
<td>Apparatus for safely handling toxic fluids</td>
<td>YES</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
</tr>
</tbody>
</table>

---

34. IMX, Inc. v. LendingTree, LLC, 469 F. Supp. 2d 203 (D. Del. 2007).
35. "N/A" for this cell and all others means that there is no clear answer in the opinion or in related litigation documents.
# Table 2

## Cases Granting Injunctions

<table>
<thead>
<tr>
<th>Case</th>
<th>Technology</th>
<th>Commercialized Patent / Market Competition?</th>
<th>Willful Infringement?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wald v. Mudhopper Oilfield Servs.</td>
<td>Polymer sticks used for drilling bores</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Telequip Corp. v. Change Exch.</td>
<td>Coin-operated products</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>TiVo Inc. v. Echostar Commc's Corp.</td>
<td>DVR</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Floe Int'l, Inc. v. Newmans' Mfg. Inc.</td>
<td>Trailer frame for hauling snowmobiles</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>3M Innovative Props. Co. v. Avery Dennison Corp.</td>
<td>Film for use in adhesives</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Rosco, Inc. v. Mirror Lite Co.</td>
<td>Cross-view mirrors for school buses</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Smith &amp; Nephew, Inc. v. Synthes (U.S.A.)</td>
<td>Medical device for treating leg fractures</td>
<td>YES</td>
<td>YES</td>
</tr>
</tbody>
</table>

---

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Black &amp; Decker Inc. v. Robert Bosch Tool Corp.(^4) (N.D. Ill.)</td>
<td>Consumer electronics; rugged radio</td>
<td>YES</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Transocean Offshore Deepwater Drilling, Inc. v. GlobalSantaFe Corp.(^5) (S.D. Tex.)</td>
<td>Deep water oil drilling</td>
<td>YES</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>MPT, Inc. v. Marathon Labels, Inc.(^6) (N.D. Ohio)</td>
<td>Labeling reusable containers</td>
<td>YES</td>
<td>N/A</td>
<td>N/A</td>
<td>NO</td>
</tr>
<tr>
<td>Novozymes A/S v. Genencor Int'l, Inc.(^7) (D. Del.)</td>
<td>Enzymes used to produce ethanol</td>
<td>YES</td>
<td>N/A</td>
<td>N/A</td>
<td>YES</td>
</tr>
<tr>
<td>Ortho-McNeil Pharmaceutical, Inc. v. Mylan Labs. Inc.(^8) (D.N.J.)</td>
<td>Patent covering TOPOMAX® pharmaceutical products</td>
<td>YES</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co.(^9) (E.D. Tex.)</td>
<td>High efficiency AC/DC converter</td>
<td>YES</td>
<td>N/A</td>
<td>N/A</td>
<td>YES</td>
</tr>
<tr>
<td>800 Adept, Inc. v. Murex Securities, Ltd.(^10) (M.D. Fla.)</td>
<td>Telephone call routing</td>
<td>YES</td>
<td>N/A</td>
<td>N/A</td>
<td>YES</td>
</tr>
</tbody>
</table>

---

TABLE 2
Cases Granting Injunctions

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>MGM Well Services, Inc. v. Mega Lift Systems, LLC(^\text{51}) (S.D. Tex.)</td>
<td>Gas drilling system</td>
<td>YES</td>
<td>NO</td>
<td>NO</td>
</tr>
<tr>
<td>Brooktrout, Inc. v. Eicon Networks Corp.(^\text{52}) (E.D. Tex.)</td>
<td>Fax server boards</td>
<td>YES</td>
<td>NO</td>
<td>N/A</td>
</tr>
<tr>
<td>Commonwealth Scientific &amp; Industrial Research Organisation v. Buffalo Technology Inc.(^\text{53}) (E.D. Tex.)</td>
<td>Wireless Local Area Network (WLAN) technology</td>
<td>YES, though only in the past(^\text{54})</td>
<td>YES</td>
<td>N/A</td>
</tr>
<tr>
<td>Sanofi-Synthelabo v. Apotex Inc.(^\text{55}) (S.D.N.Y.)</td>
<td>Pharmaceutical product for reduction of thrombotic events (Plavix)</td>
<td>YES</td>
<td>N/A</td>
<td>YES</td>
</tr>
</tbody>
</table>

In many ways, the set of cases in which courts denied plaintiffs injunctions are indistinguishable from the set of cases in which courts granted injunctions. Factors including inventive area, jurisdiction, and willfulness do not sufficiently distinguish the cases granting and denying injunctions such that one can tell, given these factors alone, whether an injunction will issue. As predicted, only one factor—market competition using the patent—accurately determines when a district court is likely to grant an injunction in a given litigation.

---

54. Commonwealth Scientific and Industrial Research Organisation (CSIRO) formed Radiata Communications Pty Ltd., with Macquarie University in 1997, in order to commercialize the patented wireless technology, but Radiata was acquired by CISCO Systems in 2001. Id. at 602. The court, however, found that CSIRO “does not compete with [the defendant] for marketshare,” but “does compete internationally with other research groups—such as universities—for resources, ideas, and the best scientific minds to transform those ideas into realities.” Id. at 604.
A. Inventive Area

Inventive or technological area does not predict whether a court will grant an injunction. In the set of cases denying injunctions, the inventive areas included software, electronic programming guides for browsing television offerings, hybrid powertrains for vehicles, angioplasty guide catheters, tarp coverings, methods and systems for trading loans, and an apparatus for safely handling toxic fluids. In the set of cases granting injunctions, the inventive areas included drilling, coin-operated products, DVRs for televisions, adhesive film, mirrors for school buses, medical devices, radios, deepwater drilling, pharmaceutical products, telephone call routing, gas drilling systems, fax server boards, and WLAN technology. Both sets of cases include a diverse range of commercial technology—both high-tech and otherwise—that overlap to a large degree. For example, for patents in inventive categories such as mechanical devices, DVR technology, and medical devices, courts have both granted and denied injunctions. Interestingly, even when the same inventive area—consumer electronics for home television—was involved, one court awarded the plaintiff an injunction, while another denied an injunction. Because no pattern exists regarding the inventive area within and across the groups of cases granting and denying injunctions, one cannot draw any meaningful categorical distinction based on technology or inventive area.

B. Jurisdiction

The jurisdiction out of which the case arises does not accurately predict when courts will grant or deny injunctions. The Eastern District of Texas has heard seven cases—more than any jurisdiction thus far—and has granted an injunction in four cases and denied an injunction in three cases. The District of Minnesota has granted an injunction in both of its cases, and the Western District of Oklahoma has granted one injunction and denied another. The District of Delaware has denied two injunctions and granted one.

56. See supra Table 1.
57. See supra Table 2.
58. See supra Tables 1 & 2.
60. See supra Table 2.
61. See supra Table 1.
62. See supra Table 2.
63. See supra Table 1.
64. See supra Table 1.
65. See supra Table 2.
York have both granted injunctions, while the Eastern District of Michigan has denied one injunction.\textsuperscript{66} The Southern District of Texas has granted two injunctions.\textsuperscript{67} The Western District of Tennessee, Northern District of Illinois, Northern District of Ohio, Middle District of Florida, and Southern District of New York have all granted injunctions, but each has only heard one post-\textit{eBay} case.\textsuperscript{68} Both \textit{Finisar} and \textit{TiVo} involved similar technology and were both venued in the Eastern District of Texas, yet came out differently with respect to injunction.\textsuperscript{69} As such, there is no clear trend at present such that jurisdictional placement can be used to predict whether an injunction will be granted.

C. Willfulness

Whether infringement was willful does not bear on whether a plaintiff obtains an injunction. Although historically willfulness has weighed heavily on the decision to grant an injunction, it has not proven significant in cases applying the four-factor analysis.\textsuperscript{70} Courts have found willful infringement\textsuperscript{71} in all but five of the cases in which willfulness was discussed in the opinion.\textsuperscript{72} In cases where the court denied an injunction, only one court specifically mentioned that infringement was non-willful.\textsuperscript{73} Where courts granted an injunction, they found infringement was not willful in four cases.\textsuperscript{74} On the other hand, willful infringement was found in roughly equal proportion in cases granting and denying injunctions.\textsuperscript{75} The absence of any discernable trend with respect to willfulness in these cases shows that the

\begin{flushright}
66. \textit{See supra} Tables 1 & 2.
67. \textit{See supra} Table 2.
68. \textit{See supra} Table 2.
69. \textit{See supra} note 59.
70. \textit{See Mitchell G. Stockwell, Implementing eBay: New Problems in Guiding Judicial Discretion and Enforcing Patent Rights,} 88 J. PAT. & TRADEMARK OFF. SOC'y 747, 751–52 (2006) (offering that judicial discretion in patent infringement cases post-\textit{eBay} should be informed by the traditional rule that any hardship the injunction would pose to the defendant should not be considered when the defendant's conduct was willful). For an example of how willful conduct affects the availability of an injunction in land encroachment cases, see Ariola v. Nigro, 156 N.E.2d 536, 540 (Ill. 1959), in which the court stated that "if the encroachment is intentional, neither the expense involved, nor the absence of damage to the land encroached upon will defeat the right to an injunction."
71. Willfulness refers to whether an infringing defendant is found by the court to have infringed deliberately or intentionally. \textit{Knorr Bremse Systeme Fuer Nutzfahrzeuge GMBH v. Dana Corp.}, 383 F.3d 1337, 1342–44 (Fed. Cir. 2004) (en banc). If so, the defendant may be liable for increased damages for past infringement. 35 U.S.C. § 284 (2000).
72. \textit{See supra} Tables 1 & 2. Entries labeled "N/A" indicate that willfulness was not discussed in the opinion.
73. \textit{See supra} Table 1.
74. \textit{See supra} Table 2.
75. \textit{See supra} Tables 1 & 2 (showing that 4 out of 7 cases denying injunctions found willful infringement and that 7 out of 18 cases granting injunctions found willful infringement).
awarding of injunctions is not dependent on whether the defendant willfully committed the infringement.

D. Market Competition and Licensing

In contrast to the above factors, the plaintiff’s status as a market competitor in the inventive area covering the patent is indicative of whether a court will grant an injunction. Denying injunctions to plaintiffs who do not compete in the market with their invention yet are willing licensors and granting injunctions to plaintiffs who compete in the market against the defendant are consistent with a rule that requires market competition to obtain a permanent injunction, and thus far courts have followed these practices. This Note calls this rule the “market competition requirement.” The market competition requirement, more than merely correlating with results, appears to be dispositive in determining whether to grant an injunction. Section I.D.1 shows that courts have denied injunctions to plaintiffs who did not compete using their invention and had been willing to license their patent. Section I.D.2 explores the corollary finding that where courts have found that the plaintiff competed in the market of the patent’s inventive area, they have universally awarded injunctions against the defendant.

1. Plaintiffs Denied Injunctions Are Not Market Competitors and Are Willing Licensors

In cases where courts denied plaintiffs injunctions, plaintiffs did not practice their invention and did not compete in the market in the area covered by the patent. Instead, these plaintiffs sought to market their patent indirectly, by licensing them in exchange for royalties. In Paice LLC v. Toyota Motor Corp., for example, Paice had patents that covered part of Toyota’s hybrid powertrain, but did not commercialize its own powertrain, choosing instead to profit by licensing the patents covering the powertrain. In z4 Technologies, Inc. v. Microsoft Corp., z4 Technologies claimed that they had tried to commercialize their product activation software covered by the patent in dispute, but conceded that ultimately they had failed. In Voda

---

76. See infra Section II.C.

77. The importance of licensing makes sense, since willingness to license can be viewed as concomitant to a business model that is not based on profits earned through direct market competition of the invention. That is, licensing revenues may sustain those entities that do not practice their inventions directly by, for example, manufacturing a product.

78. See, e.g., IMX, Inc. v. LendingTree, LLC, 469 F. Supp. 2d 203, 225 (D. Del. 2007).

79. Id.


81. Id. at *2 (noting that Paice “does not manufacture competing vehicles, but rather is geared toward licensing its technology”).

v. Cordis Corp., the plaintiff was a cardiologist who had a patent covering an angioplasty guide catheter. Dr. Voda was a willing licensor who had licensed the patent to Scimed and had also unsuccessfully tried to obtain a license from the defendant before suing them. In Sundance, Inc. v. DeMonte Fabricating Ltd., plaintiffs had an active business of licensing their patent, including failed attempts to license to the defendant. In IMX, Inc. v. LendingTree, LLC, plaintiff was a willing licensor and defendant contended that plaintiff "did not provide its technology directly to the public." The court denied plaintiffs in Finisar Corp. v. DirecTV Group Inc. an injunction even though they were a publicly traded corporation that sold and marketed products. However, en route to denying Finisar an injunction, the court noted that Finisar never used their patent or tried to sell it.

Under the market competition requirement, even entities that appear to be market competitors cannot obtain an injunction absent proof of actual market harm. Of the plaintiffs for whom courts denied injunctions, only the plaintiff in Praxair, Inc. v. ATMI, Inc. was potentially a market competitor in the inventive area covered by its patent. In this case, Praxair bore the outward appearance of a market competitor for business related to safe handling of toxic fluids and gases. The court nevertheless denied Praxair an injunction. Praxair may stand for the proposition that assertions of market competition absent proof thereof may be insufficient, but that proof of market competition and market harm is in fact sufficient for an injunction. The Praxair court, in denying an injunction, appeared to be toeing this line when it noted that "Praxair has not provided or described any specific sales or market data to assist the court, nor has it identified precisely what market share, revenues, and customers Praxair has lost to ATMI." Therefore, Praxair may show that, for one court, proof of at least market competition and possibly market harm is necessary for injunctive relief.

86. Complaint, supra note 84, at 3.
88. 469 F. Supp. 2d 203, 226 (D. Del. 2007). The record was incomplete as to whether or not the plaintiff had in fact commercialized the invention. Id.
91. 479 F. Supp. 2d 440, 443 (D. Del. 2007). There was insufficient information in the opinion in IMX to determine whether the plaintiff was a market competitor. See supra note 88.
92. Praxair, 479 F. Supp. 2d at 443.
93. Id. at 444.
94. Id.
2. Plaintiffs Granted Injunctions Do Practice Their Patent and Are Market Competitors

Plaintiffs who win injunctions practice their inventions and are market competitors with the defendant. In *Wald v. Mudhopper Oilfield Services, Inc.*, the plaintiff was in the mining business and was a market competitor with the defendant in the area of the invention—polymer sticks for treating well bores. In *Telequip Corp. v. Change Exchange*, the plaintiff marketed and sold coin dispensers for use in, among other things, checkout lines. The court found that the defendant sold infringing coin dispensers. In *TiVo Inc. v. Echostar Communications Corp.*, the court found the plaintiff and defendant, who both sold digital video recorders for home television use, to be direct competitors. In *Floe International, Inc. v. Newmans' Manufacturing Inc.*, the court emphasized that plaintiff and defendant were "direct competitors in the snowmobile trailer market." In *3M Innovative Properties Co. v. Avery Dennison Corp.*, the defendant, Avery, sold "EZ Series Fleet Marketing Film" which the court found to infringe 3M's patent covering an improvement applicable to graphical adhesives. 3M sold competing adhesives for home, office, and industrial applications. The court took special notice that 3M "consistently refused to execute a licensing agreement with Avery." In *Rosco, Inc. v. Mirror Lite Co.*, Mirror Lite and Rosco produced and sold cross-view mirrors for use in school buses, and Mirror Lite manufactured cross-view mirrors covered by their own patent. In *Smith & Nephew, Inc.*

---

95. See *supra* notes 21–24 and accompanying text.


97. *Id.* at *5* (noting that defendant's infringement would decrease plaintiff's "market share").


102. *Id.* at 669 ("Defendants compete directly with Plaintiff—Defendants market their infringing products to potential DVR customers as an alternative to purchasing Plaintiff's DVRs.").


104. *Id.* at *1.


106. *Id.* at *1.


111. *Rosco II*, 2006 WL 2844400, at *4 (*"In this case it is undisputed that Mirror Lite manufactures mirrors covered by its 984 patent."*).
In Black & Decker Inc. v. Robert Bosch Tool Corp., plaintiff and defendant competed against each other in the rugged radio market.

In Transocean Offshore Deepwater Drilling, Inc. v. GlobalSantaFe Corp., plaintiff and defendant were in "direct competition" in the deepwater drilling business.

In MPT, Inc. v. Marathon Labels, Inc., the plaintiff "invented a method, actively created a market, and established a strong market position."

In Novozymes A/S v. Genencor International, Inc., plaintiff's subsidiary and defendant were in competition in the fuel ethanol market.

In Ortho-McNeil Pharmaceutical, Inc. v. Mylan Laboratories, Inc., plaintiff and defendant were competitors in the pharmaceutical industry.

In O2 Micro International Ltd. v. Beyond Innovation Technology Co., the court found that defendant "competes directly" with plaintiff.

In 800 Adept, Inc. v. Murex Securities, Ltd., the court found that plaintiff and defendant were in "direct competition" and that defendant was taking customers from plaintiff.

In MGM Well Services, Inc. v. Mega Lift Systems, LLC, the court highlighted that defendant was a "direct competitor" of plaintiff.

In Brooktrout, Inc. v. Eicon Networks Corp., plaintiff and defendant were "competitors in the fax server board market."

In Sanofi-Synthelabo v. Apotex Inc., plaintiff marketed the drug Plavix, and defendant sought to market a competing generic.

The requirement of market competition to obtain an injunction has been remarkably consistent in cases granting injunctions. Out of the eighteen cases surveyed where plaintiffs were granted injunctions, only one case presents a slight aberration where a court granted an injunction to a plaintiff that was not a current market competitor, though this case easily fits within the framework of the market competition requirement. In Commonwealth Scientific & Industrial Research Organisation v. Buffalo Technology Inc., the plaintiff, CSIRO, was a research organization run by the Australian Federal Government, comparable to the National Science Foundation in the United States. CSIRO had formed Radiata Communications, a joint venture with a university, in order to commercialize its patent covering WLAN

---

112. 466 F. Supp. 2d 978, 984 (W.D. Tenn. 2006).
123. 492 F. Supp. 2d 600 (E.D. Tex. 2007).
technology. At the time of the suit, however, the court found that “CSIRO does not compete with [the defendant] for marketshare.” CSIRO was nevertheless granted a permanent injunction after the court noted that “CSIRO does compete internationally with other research groups—such as universities—for resources, ideas, and the best scientific minds to transform those ideas into realities.” Commonwealth Scientific may show that at least one court is more receptive to granting an injunction to a research company that competes for ideas if, at some point in the past, they were a market competitor. Because the facts are so unique, however, with the plaintiff being a research entity run by a foreign sovereign government—implicating comity concerns—this single case does not significantly affect the force of the market competition requirement’s central thesis, that market competition of one’s patent is necessary for an injunction.

II. IS THE MARKET COMPETITION REQUIREMENT CONSISTENT WITH EBAY?

The unanimous opinion authored by Justice Thomas in eBay supplied two salient guideposts for district courts to follow in applying the four-factor test. First, Justice Thomas wrote that courts should not deny an injunction if they base a finding of no irreparable harm only on the “plaintiff’s willingness to license its patents” and “its lack of commercial activity in practicing the patents.” Justice Thomas emphasized that any denial of injunction based on “broad classifications” was improper. This principle, aside from being unanimously supported in Justice Thomas’s opinion, is also directly supported by Justice Kennedy’s concurring opinion. Second, the unanimous opinion provides that “discretion must be exercised consistent with traditional principles of equity.”

This Part considers whether these two considerations can justify the market competition requirement, and concludes that they cannot. Section II.A considers whether the market competition requirement can be defended on the ground that all of the district courts did in fact apply the four-factor

124. Id. at 600–02.
125. Id. at 602.
126. Id. at 604.
127. Id. (emphasis added).
129. eBay Inc., 126 S. Ct. at 1837.
130. Id. at 1842 (Kennedy, J., concurring) (“[C]ourts should apply the well-established, four-factor test—without resort to categorical rules—in deciding whether to grant injunctive relief in patent cases.”). Justice Kennedy’s support for this principle is notable because his concurring opinion takes the most aggressive stance against plaintiffs that do no commercialize their inventions. See id.
131. Id. at 1841.
Trolling for Trolls

November 2007

323
test such that lack of commercialization did not act as a per se bar to injunc-
tion. It argues that this defense lacks merit because district courts are
adopting a different standard for plaintiffs that are not market competitors,
making it all but impossible to meet the irreparable injury rule and other
parts of the four-part test, and concludes that the availability of injunctions
impermissibly turns on the "broad classification" of market competition.
Section II.B weighs whether the market competition requirement can be
defended as an application of "traditional principles of equity" with district
courts simply utilizing their discretion to carry forward the Supreme Court's
implicit goal132 to deny injunctions to suspicious plaintiffs, that is, "patent
trolls."133 It concludes that even if the market competition requirement is
sound policy, district courts still must limit their discretion by reference to
"traditional principles of equity,"134 which precludes use of a market competi-
tion requirement that preempts relevant equitable considerations. Section II.C
examines the effect the market competition requirement has on courts' grant-
ing of injunctions. It argues that the market competition requirement causes
courts to deny plaintiffs injunctions, and that absent such a rule, many of
these plaintiffs would qualify for injunctive relief under the four-part test.
Section II.C concludes that, because the market competition requirement
contravenes eBay and alters the outcome of the remedy received by the
plaintiff, it should be abandoned.

A. The Market Competition Requirement Employs "Broad Classifications":
Different Implicit Standards of Review Under the Four-Factor Test Result in
a Bar to Injunctions for Non-Practicing and Non-Competing Plaintiffs

Under eBay, district courts are operating within their discretion in deny-
ing injunctive relief as long as the licensing and commercialization behavior
of the plaintiff is not "sufficient to establish that the patent holder would not
suffer irreparable harm if an injunction did not issue."135 In the district court
cases applying the test, plaintiffs that exhibited willingness to license and
did not commercialize their patents received the benefit of analysis under
the four-part test, including irreparable injury analysis. Under this individu-
alized standard, one could argue that district courts are successfully
avoiding the Supreme Court's main concern that consideration of equitable
standards should not allow "broad classifications" to preclude injunctive

132. DOUGLAS LAYCOCK, MODERN AMERICAN REMEDIES 45 (3d ed. Supp. 2006) ("The only
hint of what should have been the real issue in Ebay comes in the penultimate paragraph of Justice
Kennedy's concurring opinion."). The penultimate paragraph of Justice Kennedy's concurring opin-
ion is the only place where the Supreme Court mentions the elephant in the room: "An industry has
developed in which firms use patents not as a basis for producing and selling goods but, instead,
primarily for obtaining licensing fees." eBay Inc., 126 S. Ct. at 1842 (Kennedy, J., concurring).
133. See supra note 2.
134. eBay Inc., 126 S. Ct. at 1841.
135. Id. at 1840.
relief. Of course, this line of justification requires that courts' findings of "no irreparable injury" for plaintiffs are not based solely on the "broad classification" that they did not market their patented invention.

The market competition requirement does, however, create a "broad classification" contrary to eBay's holding that irreparable injury analysis should not turn only on licensing behavior and commercialization, undermining this justification. District courts have been careful not to allow plaintiffs' willingness to license their patent and a lack of commercialization to appear determinative in denying injunctions and will at least give lip service to the four-factor analysis. However, by taking account of harm to market-competing plaintiffs flowing from the loss of exclusivity and by explicitly taking notice of commercialization in the application of the four-factor test and allowing it to drive their decisions, courts have created a regime that allows availability of an injunction to turn on market competition.

This Section demonstrates how post-eBay cases employ "broad classifications." Courts selectively apply an impossible standard to non-market-competing plaintiffs causing them to flunk the irreparable injury and inadequacy of damages prongs of the four-part test. In cases where courts granted injunctions and plaintiffs commercialized their inventions, courts found both irreparable injury and inadequate remedy at law. In cases where courts denied injunctions and plaintiffs were willing licensors and did not commercialize their inventions, courts found neither irreparable injury nor inadequate remedy at law. Thus, the irreparable injury and inadequacy of damages analysis can be seen as the two pillars supporting the market competition requirement. Section II.A.1 examines how courts implement the market competition requirement through use of an impossible-to-meet legal standard for non-market competitors, resulting in a per se denial of injunctions to plaintiffs in that group. It argues that the market competition requirement, therefore, violates eBay by denying injunctions based on the "broad classification" of market competition. Subsection II.A.2 argues that this impossible standard exists in part because courts have gone beyond using

136. See id.
137. See id.
138. Though the Supreme Court in eBay states that irreparable injury and inadequacy of damages are two separate factors in the four-factor test, they are really corollaries of each other. In Wald v. Mudhopper Oilfield Services, Inc., the court noted that irreparable injury typically occurs where damages are inadequate. No. CIV-04-1693-C, 2006 WL 2128851, at *5 (W.D. Okla. July 27, 2006) (awarding an injunction to the plaintiff after applying the four-factor analysis, and noting that irreparable harm "is often suffered when the injury can[not] be adequately atoned for in money . . . or when the district court cannot remedy [the injury] following a final determination on the merits") (alterations in original) (quoting Prairie Band of Potawatomi Indians v. Pierce, 253 F.3d 1234, 1250 (10th Cir. 2001)). This Section treats the two factors as one, consistent with how district courts have applied the test. See Wald, 2006 WL 2128851, at *5; see also 3M Innovative Props. Co. v. Avery Dennison Corp., No. 01-1781, 2006 WL 2735499, at *1 (D. Minn. Sept. 25, 2006); Paice LLC v. Toyota Motor Corp., No. 2:04-CV-211-DF, 2006 WL 2385139, at *5 (E.D. Tex. Aug. 16, 2006) ("Irreparable harm lies only where injury cannot be undone by monetary damages."); Telequip Corp. v. Change Exch., No. 5:01-CV-1748, 2006 WL 2385425, at *2 (N.D.N.Y. Aug. 15, 2006).
139. See Mulder, supra note 22 (finding that the irreparable injury and inadequacy of damages analyses drive the outcome of the four-factor test in the first five post-eBay district court cases).
the concurring opinions for guidance and instead selectively apply a favor-able legal standard from Chief Justice Roberts’s concurrence to grant injunctions based on the binary fact of presence, or absence, of market com-petition.

1. An Impossible Standard: Courts Use Different Standards Based on Plaintiffs’ Market Presence, Resulting in a Per Se Denial of Injunctions to Non-Market Competitors

The market competition requirement creates a “broad classification” contrary to eBay’s implicit holding that irreparable injury and inadequacy of damages analysis should not turn only on licensing behavior and commercialization. Courts have applied an impossible-to-meet standard for a finding of irreparable injury for plaintiffs who do not compete in the marketplace. The result of district court hypersensitivity to market competition appears to be a per se finding of irreparable injury and inadequacy of damages for plaintiffs that market their invention, and a per se finding of no irreparable harm to plaintiffs that do not market their inventions. Since irreparable injury is the engine that drives the market competition requirement, an adverse finding as to irreparable injury means an injunction will not be granted.\(^4\)

In cases where plaintiffs did not market their invention, courts have used this unachievable standard to scrutinize plaintiffs’ licensing and commercialization profiles, which upon application causes plaintiffs to fail the first and second factors—irreparable injury and adequacy of damages. In Paice, the district court found that irreparable injury and inadequacy of damages were corollaries and then found that the plaintiff’s licensing behavior showed that damages were adequate.\(^1\) The Paice court all but announced a rule that plaintiffs cannot meet when they are willing licensors and do not practice the invention.\(^2\) In Finisar, the court likewise relied on plaintiff’s lack of commercialization and willingness to license to find that it had suffered no irreparable injury and had adequate remedies at law.\(^3\) The court

---

140. See z4 Techs., Inc. v. Microsoft Corp., 434 F. Supp. 2d 437, 443 (E.D. Tex. 2006) (relying on defendant’s licensing and lack of market competition in order to find that any hardships suffered by plaintiff were “reparable,” essentially collapsing the hardship inquiry into the irreparable injury and adequacy of damages inquiries).


142. Id. at *4–5. The court stated as follows:

It . . . should also be noted that because Plaintiff does not compete for market share with the accused vehicles, concerns regarding loss of brand name recognition and market share similarly are not implicated.

. . . . [Plaintiff’s] offer [to license] further demonstrates the adequacy of monetary relief from Plaintiff’s point of view. Thus, the Court finds that Plaintiff has not demonstrated monetary damages are an inadequate remedy to compensate for Defendants’ infringement.

Id.

held that an injunction was not appropriate because Finisar did not have the capability or the intention to commercialize its patent. The court went even further and created a category of "type[s] of injuries that are often in-calculable" which covered "lost profits, the loss of brand name recognition or the loss of market share." The enumerated irreparable harms all share the attribute that they can only befall a market competitor. If these are the kinds of harms that are cognizable as irreparable and for which damages will not adequately compensate, then it is hard to see how any plaintiff who does not market its invention could show irreparable injury.

In cases granting injunctions, on the other hand, courts have overtly stated that commercialization concerns motivated their finding of irreparable injury and inadequacy of damages. In *Rosco, Inc. v. Mirror Lite Co.*, the district court distinguished a case that was factually similar, but in which an injunction was denied and the plaintiff did not practice the patent. The court noted that the plaintiff in the distinguished case did not manufacture products covered by the patent, and an injunction would have given that plaintiff an unfair bargaining advantage. The *Rosco* court then found that Mirror Lite, a counterclaim plaintiff, would suffer irreparable injury because it manufactured the invention underlying the patent. In *02 Micro International Ltd. v. Beyond Innovation Technology Co.*, the court noted that the Eastern District of Texas has "recognized the high value of intellectual property when it is asserted against a direct competitor in the plaintiff's market." In *Novozymes A/S v. Genencor International, Inc.*, the court used particularly strong and clear language and noted that "head-to-head competitors ... ha[ve] a right, granted by Congress, not to assist [their] rival[s] with the use of proprietary technology." In *Brooktrout, Inc. v. Eicon Networks Corp.*, the competition between plaintiff and defendant "weigh[ed] heavily in the court's analysis." Cases granting injunctions have focused on lost sales to the plaintiff or a loss in market share as irreparable injury.

---

144. *See Garrey & Jackson, supra* note 21, at 9.
145. *Id.* 434 F. Supp. 2d at 440.
147. *Id.*
148. *Id.*
150. 474 F. Supp. 2d 592, 613 (D. Del. 2007); *see also* 800 Adept, Inc. v. Murex Sec., Ltd., No. 6:02-cv-1354-Orl-28DAB, 2007 WL 1101238, at *6 (M.D. Fla. Apr. 12, 2007) (quoting *Novozymes A/S*).
The market competition requirement gets its teeth from courts’ selective adoption, based on market competition, of a standard developed in Chief Justice Roberts’s concurring opinion for irreparable injury analysis. The Chief Justice wrote in his concurring opinion in eBay that precedent had favored granting injunctions upon a showing of validity and infringement because protecting one’s right to exclude with damages was difficult.\footnote{153} Chief Justice Roberts emphasized that the difficulty of enforcing one’s right to exclude often manifests itself as irreparable injury and inadequacy of damages.\footnote{154} The Chief Justice emphasized that this historical practice did not amount to an entitlement of an injunction, but that the historical practice and precedent should guide and inform application of the four-part test.\footnote{155} Commentators argue that Chief Justice Roberts contemplated that application of the standard should produce results similar to those reached under the Federal Circuit’s analysis, with injunctions issuing routinely.\footnote{156}

District courts have embraced Justice Roberts’s reasoning, but only when the plaintiff and defendant are competitors in the area covered by the patent. Cases denying injunctions to non-market competitors apply an inconsistent irreparable injury standard and omit the standard recited for plaintiffs who are market competitors, where the right to exclude has been a substantial consideration. One can observe this by looking at the set of district court cases decided post-eBay. In cases where plaintiffs have commercialized their inventions, courts have either explicitly or implicitly adopted Chief Justice Roberts’s suggestion that courts lean heavily on substantial precedent that irreparable and uncompensable harm flows from the loss of the right to exclude.\footnote{157} Telequip illustrates the standard used in

\begin{itemize}
  \item \footnote{153} eBay Inc. v. MercExchange, L.L.C., 126 S. Ct. 1837, 1841 (2006) (Roberts, C.J., concurring) (noting the difficulty of protecting a right to exclude through monetary remedies).
  \item \footnote{154} Id. ("[This] difficulty ... often implicates the first two factors [irreparable injury and adequacy of remedy at law] of the traditional four-factor test.").
  \item \footnote{155} Id. at 1842 ("When it comes to discerning and applying those standards ... 'a page of history is worth a volume of logic.'" (quoting New York Trust Co. v. Eisner, 256 U.S. 345, 349(1921))).
  \item \footnote{156} Barner & Norrod, supra note 15, at 12; Seidenberg, supra note 2, at 54 ("The concurrence of Chief Justice John G. Roberts Jr. ... stressed that the new four-part test should produce much the same results as the old Federal Circuit test."); Vorder-Bruegge Jr., supra note 15, at 15 ("Chief Justice Roberts’ concurrence suggests that future application of the new four-part test should still be guided by historical precedent favoring injunctions . . . .").
  \item \footnote{157} In 3M, the district court’s analysis of irreparable injury cited precedent that endorsed Chief Justice Roberts’s principle that damages are often inadequate and injury is often irreparable when one’s right to exclude is compromised. 3M Innovative Props. Co., 2006 WL 2735499, at *1. In Smith & Nephew, the court repeated the standard from Telequip and added that defendant had “violated Plaintiff’s exclusionary right in a manner that cannot be compensated adequately through
cases granting injunctions. The Telequipt court relied on precedent that patents derive their value from the right to exclude, and therefore, damages would be inadequate because loss of the right to exclude constituted irreparable injury. The 3M court likewise highlighted the general inadequacy of providing money damages to address continuing infringement. The Novozymes court directly equated irreparable harm with infringement of the right to exclude, and explicitly stated that “eBay did not state that loss of the right to exclude could not be irreparable harm.” In Black & Decker, the court went even further, holding that loss of right to exclude deserved special consideration when the plaintiff was a market competitor.

Courts apply a lenient standard when plaintiffs are market competitors and apply a standard that is impossible to meet when plaintiffs are not market competitors, resulting in an essentially per se denial of injunction to them. Compare the reliance on the irreparable consequences of losing one’s right to exclude with the standard applied in cases where plaintiffs were not market competitors and courts denied injunctions. In the latter cases, courts have not adopted the standard from Chief Justice Roberts’s concurrence, or even indirectly intimated that the withholding of the right to exclude causes irreparable harm or could lead to inadequacy of damages. Instead, courts confronted with non-market-competing plaintiffs have utilized language explicitly repudiating the proposition that infringement of the right to exclude constitutes irreparable injury. Both pecuniary damages.” Smith & Nephew, 466 F. Supp. 2d at 984. The Transocean court re-emphasized a point found in Chief Justice Roberts’s concurrence that “the right to exclude remains a relevant issue for courts to consider when weighing the equities.” Transocean, 2006 WL 3813778, at *3.


159. 3M Innovative Props. Co., 2006 WL 2735499, at *1 (“[W]here the infringing device will continue to infringe and thus damage Plaintiffs in the future, monetary damages are generally considered to be inadequate.” (quoting Schneider (Europe) AG v. Scimed Life Sys., Inc., 852 F. Supp. 813, 861 (D. Minn. 1994))).


Paice and z4 drew a line in the sand by holding that deprivation of the right to exclude does not warrant an injunction.\textsuperscript{163}

The IMX court used particularly strong language to hold that loss of one's right to exclude did not even constitute evidence of irreparable harm.\textsuperscript{164} These results demonstrate an impossible standard that non market-competitors face when courts "apply" the four-factor test. Plaintiffs that market their invention receive favored treatment and easy access to the injunctive remedy, and those plaintiffs that do not may find the standard applied to them insurmountable. Such a result—the manifestation of the market competition requirement in action—is a misapplication of the four-part test and undermines the Supreme Court's majority opinion in eBay by relying on overly broad classifications.

B. District Courts are "Trolling for Trolls" but Are Ignoring Equitable Considerations

The Supreme Court envisioned the four-factor test to reflect longstanding equitable principles\textsuperscript{165} aimed at recalibrating the injunctive remedy in patent law to conform with other areas of the law,\textsuperscript{166} but district courts have failed to account for major equitable considerations in their application of the market competition requirement. First, the starting point for equitable administration of justice requires avoiding the use of "broad classifications" that short-circuit evenhanded application of the test. Second, if courts are really to utilize the four-factor test in the service of aligning the injunctive remedy in patent law with other areas of law, then they should not subvert that goal by ignoring equitable willfulness doctrine that has emerged with respect to the injunctive remedy in other areas of the law. The Supreme Court's repudiation of the Federal Circuit's general injunction-granting rule in favor of applying "traditional principles of equity" should have been a sign to district judges that creating sui generis requirements in patent law to obtain injunctive relief was off limits. However, this is exactly what district courts have done with the market competition requirement. Ironically, if this trend continues, this recalibration of remedies could end up leaving remedies in patent law seriously misaligned with other areas of the law.

\textsuperscript{163} Paice, 2006 WL 2385139, at *5 ("Infringing one’s right to exclude ... is insufficient to warrant injunctive relief."); z4, 434 F. Supp. 2d at 441 ("[A] violation of the right to exclude does not inevitably lead to the conclusion that a patent holder cannot be adequately compensated by remedies at law such as monetary damages without first applying the principles of equity.").

\textsuperscript{164} IMX, 469 F. Supp. 2d at 225 (finding that plaintiff's contention that it suffered irreparable harm in the form of loss of its exclusive right amounted to "no evidence of irreparable harm").

\textsuperscript{165} eBay Inc. v. MercExchange, L.L.C., 126 S. Ct. 1837, 1839 (2006) ("According to well-established principles of equity, a plaintiff seeking a permanent injunction must satisfy a four-factor test before a court may grant such relief.").

\textsuperscript{166} Id. at 1840.
The Supreme Court’s holding in *eBay* empowered district courts to issue injunctions according to their equitable discretion.\(^{167}\) District courts arguably have discretion to find that equity favors denying injunctions to willing licensors who, because they don’t practice their invention and make a business out of collecting licensing fees, can be made whole by damages. Justice Kennedy advocated for this expansive view of district court discretion in his concurrence and implored district judges to be wary of plaintiffs asserting patents in order to obtain a license fee yet who were not market competitors.\(^{168}\) Justice Kennedy noted that in certain circumstances, the public interest favored awarding plaintiffs damages rather than injunctions.\(^{169}\) When a district court, then, disarms a plaintiff that it views as a nuisance holdup artist by denying an injunction, it is arguably operating within its discretion.

District court discretion, regardless of whether it is exercised to admirable ends, is nonetheless cabined by the Supreme Court’s central holding in *eBay* that discretion must be congruent with traditional principles of equity.\(^{170}\) Two lessons from the opinion provide useful guidance. First, referring to per se denials of injunctions to noncommercial willing licensors, the Supreme Court stated that any use of “broad classifications” in the four-factor analysis contravened traditional principles of equity.\(^{171}\) District courts’ adoption of a market competition requirement that relies on “broad classifications” of market activity runs afoul of this constraint. Second, the Supreme Court held that traditional principles of equity should apply equally “in patent disputes no less than in other cases governed by such standards.”\(^{172}\) The implication is that traditional principles of equity exist not only in the body of cases discussing the injunctive remedy in patent law, but also in the larger body of cases dealing with the injunctive remedy more generally.

One of the most well-known equitable principles regarding specific remedies\(^{173}\) is that when infringement is willful, equity may require that courts ignore the defendant’s hardship. One commentator, in suggesting that courts could use willfulness determinations to guide district court discretion post-*eBay*, found it a nearly universal principle of equity that courts do not

---

167. *Id.* at 1841 (“[T]he decision whether to grant or deny injunctive relief rests within the equitable discretion of the district courts . . . .”).

168. *Id.* at 1842 (Kennedy, J., concurring) (“[F]irms use patents not as a basis for producing and selling goods but, instead, primarily for obtaining licensing fees.”).

169. *Id.* (“When the patented invention is but a small component of the product . . . legal damages may well be sufficient to compensate for the infringement and an injunction may not serve the public interest.”).

170. *Id.* at 1841.

171. *Id.* at 1840; *see also supra* Section II.A.


173. As opposed to substitutionary remedies, which seek to compensate the plaintiff or provide the plaintiff with a substitute to redress what she has lost, specific remedies seek to prevent the harm from occurring in the first place or to give back to the plaintiff the specific thing she has lost. Colleen P. Murphy, *Money as a “Specific” Remedy*, 58 ALA. L. REV. 119, 134 (2006).
balance hardships if defendant’s conduct was willful. Courts more generally recognize that balancing tests avoid the harsh results of rigid application of the law upon an innocent defendant, but the reason for mitigating harsh results is absent when a defendant’s conduct was willful. Courts have also recognized that should they award specific relief, equity requires discounting the defendant’s alleged hardship where the defendant’s conduct was willful.

Though discounting the hardship of a willful wrongdoer is one of the most widely recognized equitable doctrines, district courts denying injunctions post-ebay are conspicuously not applying it. While courts have found willful infringement in eleven cases post-ebay, this finding has failed to make its way into the four-factor analysis and has failed to shape the hardship considerations in particular. Instead, the market competition requirement has trumped willfulness considerations. Because the market competition requirement does not allow for application of this important equitable doctrine, it violates ebay’s command to apply “traditional principles of equity.”

C. The Market Competition Requirement as Causation

The market competition requirement, because it precludes equitable considerations such as willfulness and relies on broad classifications, has a real and salient effect on those plaintiffs denied injunctive relief. Were courts to abandon the market competition requirement in favor of even-handed application of the four-factor test with full force given to willfulness considerations, the likely result is that at least some plaintiffs for whom courts denied injunctions would have been granted injunctions. First, if the rigid market competition requirement were gone, plaintiffs seeking injunctions against willful infringers would be able to eliminate from consideration any hardship that the defendant might claim under an injunction. Second,

174. Stockwell, supra note 70, at 751 (“In virtually all areas of law, when considering injunctive relief ‘a court need not balance the hardship when a defendant’s conduct has been willful.’” (quoting United States v. Marine Shale Processors, 81 F.3d 1329, 1358 (5th Cir. 1996))).

175. See id. (“A court balances equities to avoid harsh results that strict application of law could inflict on a blameless party; but policies that aim to protect innocent defendants and allow them ‘to show undue harm from strict legal enforcement are not present’ in the case of willful conduct.” (quoting Louis W. Epstein Family P’ship v. KMART Corp., 13 F.3d 762, 769–70 (3d Cir. 1994))).

176. Helene Curtis Indus., Inc. v. Church & Dwight Co., 560 F.2d 1325, 1333 (7th Cir. 1977). There is also a body of cases that has held that in land encroachment cases, where the encroachment was willful, hardship to defendant should not be considered even if damage to the plaintiff is slight. See, e.g., Ariola v. Nigro, 156 N.E.2d 536, 540 (Ill. 1959) (collecting cases discussing the standard that willful encroachment leads to an injunction, even when the injunction would be costly to defendant and would only benefit plaintiff slightly).

177. See supra Table 1.

178. See id. Willful infringement was found in four cases where the injunction was denied, but this did not affect the analysis under the four-factor test. See id.

179. See supra notes 173–176 and accompanying text.
without the market competition requirement, "broad classifications" and im-
possible standards for irreparable injury and inadequacy of damages analysis,
inequitable on their face, would disappear.\textsuperscript{180} This would allow non-market-
competing plaintiffs to enjoy the same favorable finding as other plaintiffs of
irreparable injury from loss of the right to exclude, as described in Chief
Justice Roberts's opinion. This would be especially important for plaintiffs
seeking to enjoin willful infringers, as the loss of the right to exclude would
carry extra weight to fill the void left by the removal of the hardship factor.

\textit{z4} is a good example of a case that may have come out differently in the
absence of a market competition requirement. The court relied heavily on
the substantial hardship to Microsoft in terms of resources and cost which
would befall them if an injunction issued, but did not consider that this
hardship was one brought about by Microsoft's own willful infringement.\textsuperscript{181}
Without the market competition requirement, however, courts would pre-
clude from consideration Microsoft's hardships under an injunction because
of the willful nature of their wrong. \textit{z4}'s hardship, even if only "limited" in
the court's view,\textsuperscript{182} would make this factor favor \textit{z4}. The remaining factors
left to be considered would be irreparable injury and inadequacy of dam-
ages, as the \textit{z4} court assigned little weight to the public interest factor.\textsuperscript{183}
Without the market competition requirement, the impossible standard as to
irreparable injury and inadequacy of damages would vanish, giving \textit{z4} an
opportunity to persuade the court that its inability to exclude Microsoft, a
potential licensee, from using its patent without permission was itself an
irreparable injury not compensable by damages.\textsuperscript{184} \textit{z4}, therefore, would have
a realistic chance of showing irreparable injury and inadequacy of damages
by using the same standard afforded to market-competing plaintiffs for
whom courts do award injunctions. By showing that the hardship, irrepara-
ble injury, and adequacy of damage factors favor them, plaintiffs' odds of
obtaining an injunction would be vastly improved as compared to under the
market competition requirement. Courts, therefore, should abandon the
market competition requirement in favor of an even-handed application of
the four-factor test both because the market competition requirement defies
\textit{eBay} and is outcome determinative.

\begin{flushleft}
180. \textit{See supra} Section II.A.1.

(noting that it was "quite likely" that the "resources, time, and expense required to redesign its
Windows and Office software products would create a significant hardship on Microsoft").

182. \textit{id.} at 443.

183. \textit{See id.} at 444 (noting that the public interest weighed "only slightly" in favor of plain-
tiff).

184. The court's original argument that plaintiff would not be harmed because it wasn't losing
market share and wouldn't suffer loss of brand name recognition would be unavailing. \textit{See id.} at
440.
\end{flushleft}
Whether or not the market competition requirement comports with the Supreme Court’s message in eBay, district courts’ creation of this standard may be defensible if it leads to desirable results. However, the market competition requirement cannot be justified on policy grounds. Superficially, the market competition requirement appears to lead to good outcomes; courts award injunctions to plaintiffs that are market competitors and are losing market share to firms that have infringed on their invention, while keeping trolls at bay by denying injunctions plaintiffs that attempt to use patents only as part of a profit-making holdup scheme. But even from an ex post perspective, rote application of the market competition requirement may fall short of allocative efficiency. Possible losses due to overinclusiveness caused by classification errors and decreased competition may negatively impact allocative efficiency. More importantly, even if the market competition requirement leads to ex post gains, its application may prevent socially optimal levels of innovation by lowering the expected monetary value associated with patent rights and decreasing patentee leverage, thereby curbing ex ante incentives to innovate. Sections III.A and III.B consider, in turn, the effects that the market competition rule might have on ex post allocative efficiency and on ex ante incentives to innovate.

A. The Market Competition Requirement Reduces the Holdup Problem, but Poses Additional Problems that May Prevent Ex Post Allocative Efficiency

This Section examines how the market competition requirement addresses problems associated with holdup in patent cases, but concludes that questions regarding the market competition requirement’s overinclusiveness and its effects on competition may counsel against its continued use. Ex post allocative efficiency is achieved when an allocation of resources “is impossible unambiguously to improve upon.”185 A major part of efficient allocation of resources that arises in the context of patent lawsuits is the need to “minimiz[e] the losses suffered by the litigating parties.”186 When holdup occurs, one party threatens to produce an outcome that would harm the other party in order to gain a bargaining advantage.187 The classic holdup problem exists when the threat takes the form of one party saying, “I will do something that hurts you more than it helps me unless you pay me not to.”188 The threat of an injunction gives the plaintiff an

187. See supra note 1.
188. Ayres & Madison, supra note 1, at 46.
enormous amount of bargaining power which, when wielded by the threatening party, exacerbates the holdup problem. Whether the threatening party succeeds in extracting payment or follows through on the inefficient threat, the result is a less than optimal allocation of resources ex post. Section III.A.1 discusses the problem of holdup in patent law. Section III.A.2 reexamines the market competition requirement as an attempt to address the problem of holdup. Section III.A.3 concludes that the market competition requirement may not be well suited to combat the holdup problem because it may transfer wealth from small-scale inventors to established firms and may reduce competition.

1. The Holdup Problem in Patent Law

To the extent that holdup in patent law decreases ex post allocative efficiency, solutions targeted at improving allocative efficiency may not yield better results unless they properly identify would-be holdup artists. Commentators have characterized the holdup problem in intellectual property as especially acute because of the emergence of so-called “patent trolls” that utilize the threat of injunction in hopes of obtaining lucrative settlements. Of specific concern to some commentators is when “patent trolls game the system in an effort to capture not only the value of their inventions, but the value of complementary assets and irreversible investments.” In his concurring opinion, Justice Kennedy cited an FTC report emphasizing that holdup in patent cases was particularly wasteful in terms of social costs because, among other things, (1) the firm practicing the invention will be willing to pay a higher license than they would have been prior to sinking costs into the invention; (2) if the settlement sought amounts to less than the cost of litigation, the practicing entity may be willing to settle even when the patent alleged to have been infringed is likely invalid; and (3) the result of holdup by patent trolls is the transfer of wealth from the practicing entity that is actually engaged in innovation to the troll that receives a windfall out of proportion with the benefit it has provided consumers.

In addition to the problem of coerced settlements and socially wasteful injunctions that harm consumers, there are costs incidental to negotiating a settlement. This cost can be especially burdensome in patent litigation because bilateral monopolies create a large bargaining range. The wide

191. Id.
192. FTC REPORT, supra note 3, at ch. 3, 40–41.
193. Bilateral monopoly exists when “two parties can deal only with each other.” Walgreen Co. v. Sara Creek Prop. Co., 966 F.2d 273, 276 (7th Cir. 1992).
194. Id.
bargaining range exists because the holdup plaintiff will try to extract the most lucrative settlement value possible, potentially just lower than the expected result of litigation. However, the expected result of litigation can be enormously high if an injunction is the anticipated remedy. In this case, the plaintiff may seek an amount approaching the losses that the defendant could avoid if there were no injunction. The defendant, on the other hand, has an interest in paying as little as possible. If the plaintiff only asserts the patent as a bargaining chip and has not suffered any harm beyond expending the resources to prosecute its claim, the defendant may assume that any settlement that the plaintiff receives above its costs of enforcing the patent right will be appropriate. The settlement range in this instance would be the plaintiff’s cost of enforcing the patent as a lower bound and the cost of the harm that would befall the defendant if an injunction issued as an upper bound. This difference could be staggeringly large. As Judge Posner has noted, “the costs of negotiating to a point within that range may be high.”

However, private negotiations facilitated by injunctions as a means of dealing with the costs of negotiating to a point within a large range are often too quickly dismissed by those advocating for judicial valuation of patent royalties. Commentators argue that whatever the costs imposed by private negotiation of a patent license in the shadow of an injunction, it is not clear that the alternative, judicially determined damages, is any better. Professor Merges argues that even if transaction costs are high, private negotiations in patent cases resulting from injunctions are preferable to awarding damages because valuation of intellectual property can be an intractable problem with which courts are not equipped to deal. If true, holdup and the associated negotiation costs, though otherwise problematic, would be necessary evils required to facilitate private negotiations. Although commentators disagree on when and how frequently private negotiations should be encouraged, in discussing holdup issues they often overlook the benefits of private bargains in valuing intellectual property.

In addition to considerations of negotiating and valuation costs generally, in order to achieve ex post allocative efficiency, categories of factual circumstances where granting plaintiffs injunctions would lead to socially suboptimal results must be identified and addressed. Though private bargains may or may not be the best available means for parties to value a patent in general, the real question is whether, as per specific plaintiffs, denying the leverage of an injunction in bargaining would prevent the kind

195. Id.
196. See Robert P. Merges, Comment, Of Property Rules, Coase, and Intellectual Property, 94 COLUM. L. REV. 2655, 2664 (1994) (explaining that injunctions in IP cases are preferable to court ordered damages because of the valuation problems associated with commercially deployed intellectual assets); cf. Sara Creek Prop. Co., 966 F.2d at 276 (“[P]rices and costs are more accurately determined by the market than by government.”).
197. Merges, supra note 196, at 2664.
of inefficient transfers of wealth and social waste identified in the FTC report.\textsuperscript{198} If granting an injunction in specific instances would lead to socially inefficient results, then the necessary smaller cost of valuation through judicial damages proceeding in those instances may be justifiable to prevent the larger cost associated with inefficient wealth transfer. Justice Kennedy recognized this concern in his concurring opinion and was particularly troubled by "firms [that] use patents not as a basis for producing and selling goods but, instead, primarily for obtaining licensing fees."\textsuperscript{199} Justice Kennedy highlighted certain classes of plaintiffs that abused injunctions by employing them "as a bargaining tool to charge exorbitant fees to companies that seek to buy licenses to practice the patent."\textsuperscript{200} A solution designed to ameliorate these holdup problems raised by Justice Kennedy should, therefore, do so in a way narrowly tailored to affect only holdup artists.

2. The Market Competition Requirement Addresses the Holdup Problem and Eliminates Some of the Problems Associated with Holdup

At first pass, the market competition requirement moves individual litigation outcomes closer to ex post efficiency by preventing holdup and its ensuing costly transfers of wealth and negotiation costs, but only insofar as courts have confidence that its application correctly "sorts" plaintiffs. One way to view the market competition requirement is as a heuristic for identifying the class of cases where the risk of socially wasteful holdup might be most pressing. When applied to plaintiffs who have no good-faith intention of practicing their invention and would not benefit from an injunction, it serves the dual function of reducing the holdup problem and protecting consumers from the downstream effects of inefficient transfers of wealth.\textsuperscript{201} For market competitors, on the other hand, courts still issue injunctions, preserving parties' ability to negotiate to a result in the market. In this way, the market competition requirement can be seen as a gatekeeper that lets through only those plaintiffs who would not engage in socially costly holdup if they were awarded an injunction. Similarly, the market competition requirement's demarcation of the class of entities that are not market competitors may serve as a rough-and-ready judicial approximation of the patent troll, allowing courts to locate socially costly injunctions before issuance, at low judicial cost.\textsuperscript{202}

\textsuperscript{198} See FTC REPORT, supra note 3, at 40–41.
\textsuperscript{200} Id.
\textsuperscript{201} See supra notes 192, 198 and accompanying text.
\textsuperscript{202} Cf. Grab, supra note 2, at 113–14.
3. Overinclusiveness of the Market Competition Requirement and Effects on Competition May Offset Some of the Ex Post Gains Achieved by Reducing the Holdup Problem

Though the market competition requirement confers ex post social benefits in the form of reducing some of the problems associated with holdup, its overinclusiveness may mitigate the ex post gains. The market competition requirement is an overinclusive categorization that may result in inefficient transfer of wealth from small-scale inventors to established firms, resulting in decreased competition. The market competition requirement withholds injunctions from plaintiffs that are not presently market competitors without adequately weighing the intent of the plaintiff. For those plaintiffs that intend to practice their invention but have not yet marketed it, the ex post justification for denying an injunction is weaker. To account for this, one would have to subtract from the gains achieved ex post the losses incurred through false negatives, which occur when courts deny injunctions to plaintiffs who ultimately would have commercially implemented their invention in a manner beneficial to consumers but were unable to do so because they lacked sufficient power to enter the market without the injunction.

The amount of this loss is entirely dependant on the frequency at which would-be commercial competitors—those persons or entities that have future plans or would otherwise end up competing in the future—are stymied by the non-issuance of an injunction. The business model of patent licensing firms of buying, selling, and litigating patents means that this group may contain few would-be competitors, so the number of false negatives affecting this group is probably low. However, even with respect to licensing firms, for each false negative where a court denies an injunction to a plaintiff that would not in fact have engaged in holdup, potential losses associated with substituting judicial valuation for private negotiation still exist. Individual small-scale inventors, as opposed to patent licensing firms, may, more frequently, fall within the category of would-be competitors. The risk of false negatives to this group, because they may intend to compete in the future yet are likely to be ensnared by the market competition requirement, is more prominent. One specific area of concern, brought to the fore by Justice Thomas, is the need to protect “self-made

203. See id.

204. See z4 Techs., Inc. v. Microsoft Corp., 434 F. Supp. 2d 437, 444 (E.D. Tex. 2006) (denying an injunction to z4 amid arguments and evidence that z4 had exerted tremendous effort to commercialize its patent, and failed only because of Microsoft’s infringement).

205. For example, the inventions could have benefited consumers by providing competition that reduced prices or by providing superior goods or services.

206. A related, similar loss occurs when a court incorrectly classifies a market-competing plaintiff (or indeed any plaintiff) as a party who would use an injunction as a holdup device and then denies that party an injunction.
inventors” who “prefer to license their patents.” Justice Thomas’s warning against a categorical denial of injunctions to “self-made inventors” shows that the market competition requirement can produce casualties if not applied with great care. Therefore, any analysis must account for the ex post loss contributed by impeding individual inventors and other would-be competitors.

By impeding would-be market competitors, the market competition requirement increases ex post losses due to monopoly. A would-be competitor could include, for example, a self-made inventor that was on the wrong end of the market competition requirement, or an actual patent troll that, while fitting the description of troll today, would actually have implemented the invention in the future. Would-be competitors cannot obtain an injunction under the market competition requirement because their current conduct does not include market competition. When the market competition requirement prevents a would-be competitor from entering the market because of an inability to adequately protect an invention, the result is a ratification of the market status quo. At its worst, the market competition requirement may be an antidote to the holdup problem that is itself a poison because the result is a transfer of wealth from small-scale inventors to established market competitors. This is the corollary to the holdup problem, where established market competitors transfer wealth to individual inventors and licensing firms. Transfer of wealth from would-be competitors to established corporate entities is problematic because it reduces competition by creating barriers to entry for new competitors. This transfer results in dead weight ex post loss due to monopoly pricing. Such a result runs contrary to the underlying policy on which antitrust legislation operates, namely that competition is required for the benefit of consumers and business. Therefore, this loss is particularly dangerous because it can exacerbate socially inefficient

208. See id. For example, cardiologist Jan K. Voda was denied an injunction for his invention of a medical device. See Complaint, supra note 84.
209. But cf. Commonwealth Scientific & Indus. Research Organisation v. Buffalo Tech. Inc., 492 F. Supp. 2d 600, 600-02 (E.D. Tex. 2007) (granting an injunction to an Australian government run research institution that previously had been a market competitor in its inventive area although it was not at the time of the opinion, but it was a competitor in the market of ideas and scientific minds at the time of the opinion).
210. The transfer of wealth entails the established competitor achieving a larger share of the market than otherwise would have been possible if the would-be small scale inventor had successfully been able to penetrate the market and capture some of the share.
211. See United States v. E.I. du Pont de Nemours & Co., 351 U.S. 377, 391 (1956) (“Monopoly power is the power to control prices or exclude competition.”).
213. Herbert Hovenkamp, The Antitrust Enterprise: Principle and Execution 174 (2005) (“Antitrust’s purpose is to promote competition, which it does by encouraging competitive market structures and intervening selectively when practices pose a genuine threat to competition.”).
markets devoid of meaningful competition to the detriment of both consumers\(^\text{214}\) and scientific progress.\(^\text{215}\)

Given the dynamic nature of ex post costs, an opportunity exists for district courts to exercise their discretion to minimize the negative impact of the market competition requirement. Costs attributed to impeding would-be competitors relative to the state of affairs pre-*eBay* might be justified ex post if, after accounting for these losses, the net result is positive and is the best possible means of addressing the holdup problem.\(^\text{216}\) District courts should apply the market competition requirement with great care to avoid false negatives. Indeed, rather than trolling for trolls based on the single dimension of market competition, it would be more prudent for district courts to expand their factual analysis to watch out for entities who, while having a superficial resemblance to a holdup artist, would not in fact be at high risk of engaging in holdup. Courts could accomplish this, for example, by considering a wider range of factors when conducting irreparable injury and inadequacy of damages analysis such as the plaintiff’s prior efforts, ongoing attempts and future plans to market the invention, past licensing practice, and other commercial activity in the same sector but not covering the patent. *Commonwealth Scientific*, though a very unique set of facts, may be a positive development, as the court noted that the plaintiff had engaged in successful commercialization activities in the past before ultimately granting an injunction.\(^\text{217}\) Applied in this way, the market competition requirement may increase ex post allocative efficiency versus pre-*eBay*. If, on the other hand, district courts continue along their current trajectory of rigidly applying the market competition requirement without weighing the consequences, a legitimate risk exists that losses from the market competition requirement will overshadow all the benefits that were to flow from combating patent trolls.

**B. The Market Competition Requirement Endangers Ex Ante Productive Efficiency and Diminishes Incentives to Innovate**

Even if substantial gains ex post exist upon application of the market competition requirement, the reduction in ex ante productive efficiency that is likely to occur as a result of decreased incentives to innovate may

\(^{214}\) **PHILLIP AREEDA ET AL., ANTITRUST ANALYSIS** 11 (6th ed. 2004); Thomas G. Krattenmaker & Steven C. Salop, *Anticompetitive Exclusion: Raising Rivals’ Costs To Achieve Power over Price*, 96 *Yale L.J.* 209, 279 (1986) ("An increase in price, caused by the exercise of market power, harms consumers . . . [through the] unambiguously harmful ‘deadweight’ loss of sales occasioned by the shift from the lower, more competitive price.").


\(^{216}\) Other solutions to the holdup problem resulting from injunctions have also been offered, including the proposal by Professors Ayres and Madison to award inalienable injunctions that render settlement after injunction impossible. Ayres & Madison, *supra* note 1, at 72–78.

\(^{217}\) *See supra* note 54.
offset these gains to the point that courts should avoid application of the market competition requirement. The market competition requirement's substantive impact is that it changes the distribution of remedies granted to successful plaintiffs. Whereas pre-eBay, courts, in essence, granted injunctions to all plaintiffs upon finding infringement of a valid patent, the market competition requirement confines the availability of the injunctive remedy to market competitors. Those plaintiffs that do not receive injunctions receive judicially fixed damages. The inability of the class of noncompeting plaintiffs to access injunctive relief, despite having shown infringement of their valid patent, may adversely affect incentives to innovate due to the importance of injunctive relief to patent holders. This Section explores how the market competition requirement may decrease ex ante incentives to innovate, examines the adverse effect the market competition requirement may have on small-scale inventors, and concludes that risks to productive efficiency counsel against the continued use of the market competition requirement.

The Constitution grants Congress the power to "promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries." This limited power requires maintaining a careful balance between the need to provide adequate incentives for innovation while ensuring that the cost to the public is the minimum necessary to achieve those ends. As the Supreme Court has expressed, "Patents are not given as favors . . ., but are meant to encourage invention by rewarding the inventor with the right . . . to exclude others from the use of his invention . . .. But in rewarding useful invention, the 'rights and welfare of the community must be fairly dealt with and effectually guarded.'"

Attempts to improve the ex post results in patent litigation must not occur at the expense of the public, who are the beneficiaries of properly incentivized innovation and scientific progress. Federal courts adjudicating patent disputes have embraced this perspective in holding that achievement of the constitutional purpose of incentivizing innovation for the benefit of the public is not possible without the aid of injunctive relief. In Smith International, Inc. v. Hughes Tool Co., the Federal Circuit stated that "[w]ithout this injunctive power of the courts, the right to ex-

219. See supra Section I.D and Part II.
221. See Sears, Roebuck & Co. v. Stiffel Co., 376 U.S. 225, 230 (1964) (describing the strict prerequisites to obtaining a patent and the strict enforcement on the limitations on the exercise of a patent after it has been issued).
222. Id. (quoting Kendall v. Winsor, 62 U.S. (21 How.) 322, 329 (1858)).
clude 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.\textsuperscript{224} The market competition requirement may be a reasonable attempt to promote social welfare from an ex post perspective, but to the extent that withholding the injunctive remedy detrimentally affects incentives to develop technologies and the platforms to utilize them, it fails to meet the quid pro quo required by the Constitution.

Commentators have argued that solutions aimed at reducing the problems of holdup ex post are therefore inadequate unless they account for the ex ante effects. Professor Elhauge, commenting on courts' general and erroneous practice of weighing the costs and benefits of monopolies only ex post, states the problem as follows:

\begin{quote}
\textquote[225]{[T]he monopoly loss that results from the exclusion of rivals is an ex post loss that exists only if we compare it to a baseline that assumes the invention was made in the first place. But we get to that baseline only if there are adequate ex ante incentives to innovate.}\textsuperscript{225}
\end{quote}

“Small” decreases in ex ante incentives to innovate manifest themselves in enormous loss because they result in the non-production of the innovation in question in the first place, completely precluding the possibility of any social gains accruing from this innovation ex post.\textsuperscript{226} Similarly, the market competition requirement produces good results only if one adopts the assumption that once innovators take notice of the requirement, they will continue to invent with the same enthusiasm and fervor as they did before the rule existed.\textsuperscript{227} This assumption, however, is likely to be false.

The market competition requirement results in far fewer injunctions, which in turn results in lower expected values for patents and diminished incentives to innovate.\textsuperscript{228} The Federal Circuit has adopted the position that without the ability to obtain injunctive relief, “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.”\textsuperscript{229} The principle that patents have reduced value if not enforceable through injunction has been adopted by federal district courts\textsuperscript{230} and continues to be viable post-\textit{eBay} as

\begin{itemize}
\item \textsuperscript{224} \textit{Smith Int'l}, 718 F.2d at 1577–78.
\item \textsuperscript{226} \textit{Id.} at 302 (arguing that there would be no ex post allocative efficiency if the diminution in profits deters investment in innovation).
\item \textsuperscript{227} \textit{See id.} at 301 (“[O]nce judicial decisions . . . create such a legal risk of compulsory patent licensing, that risk would apply to all future innovations that might get patented by any firm.”).
\item \textsuperscript{228} Merges, \textit{supra} note 196, at 2667 (quoting \textit{Smith Int'l}, 718 F.2d at 1577).
\item \textsuperscript{229} \textit{Smith Int'l}, 718 F.2d at 1578.
\end{itemize}
well. With the average value of patents depressed, innovators will not pursue at least some socially useful inventions on the margin. Those entities that recognize themselves as falling squarely within the crosshairs of the losing end of the market competition requirement—i.e., patent licensing firms and "self-made inventors"—will likely place a particularly low value on their patents and will have especially low incentives to innovate. It is virtually certain, therefore, that the market competition requirement will deter at least some socially useful inventions that these groups otherwise would have created. The specific amount of innovation that is deterred is an empirical question that is beyond the scope of this Note. However, it is instructive to note that federal courts and commentators have argued that removal of the injunctive remedy is likely to have substantial effects on innovation.

Post-eBay district court cases illustrate how the judicially determined damages remedy may be inadequate to protect innovation incentives as compared to an injunction. When post-eBay courts deny injunctions, they allow the defendant’s infringing conduct to continue. Courts determine the damages for the past and future infringement based on a "reasonable royalty" approximating the revenues that plaintiff would have received had the plaintiff and the infringer entered into a license agreement with reasonable terms. Commonly, courts order the infringing defendant to file reports with the court, so they may adjust damages based on reasonable royalty if the level of infringement changes with future conduct.

Damages based on reasonable royalty implicate the concern that incentives to innovate will diminish under the market competition requirement because damages may systematically undervalue the reasonable royalty that the plaintiff is entitled to for future infringement. Fact-finders, in setting the royalty rate, have the unenviable task of replicating a value reached in negotiation between plaintiff and defendant, while also valuating abstract technological concepts. Therefore, courts cannot reach a reasonable royalty with scientific precision. While one might think that errors in setting the royalty rate will net out, averaging to a value close to


232. Merges, supra note 196, at 2667.

233. See supra notes 228–230 and accompanying text.


237. See supra note 196 and accompanying text.

what the parties would have agreed to in negotiations, commentators have argued that judicially determined damages awarded to enforce property rights tend to be undercompensatory and will not provide the same incentives to innovate ex ante as a patentee’s ability to license on their own terms, or not at all.

Plaintiffs, especially small-scale inventors, will not have the leverage to negotiate adequate compensation if judicially determined royalties are, on the average, systematically undercompensatory, absent an injunction. The court, for example, awarded the “reasonable royalty” of 7.5% of the defendant’s gross sales of the infringing devices to the plaintiff in Voda, a doctor who had patented improvements on a medical catheter. This entitled Dr. Voda to a stream of revenue based on the quantity of infringing devices that the defendant sold multiplied by the royalty rate set by the court. What it did not entitle Dr. Voda to, though, was the ability to collect more than 7.5% of the revenue, as the royalty rate found by the court would impose a de facto ceiling on a privately negotiated royalty rate that might be reached post-trial. If some percentage above 7.5% of the sales by defendant were attributable to Dr. Voda’s improvement, Dr. Voda would have been left undercompensated with no recourse. Had the court awarded Dr. Voda an injunction, however, he could have attempted to negotiate a higher royalty as part of a license and simply refused to license the technology if agreement from the defendant was not forthcoming.

To be sure, both winners and losers exist under the market competition requirement, but the incentives of the losers may be particularly sensitive to the market competition requirement. The “losers” are those for whom application of the market competition requirement results in a decrease in ex ante incentives to innovate, namely individual inventors and patent licensing entities. It may be relatively easy for an entity to predict that, as per an inventive area, the court will not perceive them as being a market competitor since district court cases have fleshed out the rule with a fair amount of clarity, meaning that they can predict being a loser under the market competition requirement. An entity that recognizes itself as losing under the market competition requirement, therefore, may be sensitive to its inability to exclude potential competitors. The “winners” are those for whom application of the market competition requirement results in an increase in ex ante incentives to innovate, namely corporations. The winners’ ex ante incentives are increased only to the extent that some innovation was previously deterred ex ante by the threat of ex post holdup.

239. See id. at 69 (discussing the objection to liability rules that courts are likely to systematically underestimate damages due to the fact that plaintiffs carry the burden of proof for damages issues, and defendants contrary speculative evidence is allowed); supra note 196 and accompanying text.


241. See FTC REPORT, supra note 3, at ch. 3, 41 (“[I]nnovation may suffer because some companies will ‘refrain from introducing certain products for fear of hold-up.’” (quoting Carl Shapiro, Navigating the Patent Thicket: Cross Licenses, Patent Pools, and Standard-Setting, in 1 INNOVATION POLICY AND THE ECONOMY 119, 126 (Adam Jaffe et al. eds., 2001))). The increase in
An entity will have greater difficulty, however, predicting ex ante that an inventive area in which they are considering investment is likely to harbor future threats of patent holdup, meaning that the winners may not be able to appreciate the potential incentive increase ex ante. Therefore, incentives for the losers may be more sensitive to the effects of the market competition requirement than the winners.

Available data bolsters the proposition that, because individuals are responsible for a high degree of patent innovation, it is important that we calibrate incentives to an appropriate level. A study by the National Science Foundation ranked individuals behind only business entities as the largest constituency responsible for innovation through patenting. Data reveals that in the United States in 2005, the PTO granted 10,358 patents to individuals, and 65,207 patents to U.S. corporations. Indeed, this may be an optimistic demography of groups potentially affected by the market competition requirement since many patent licensing firms are incorporated. Given the high amount of patent activity taking place in the demographic group most adversely affected by the market competition requirement, it is risky to assume that increased ex ante incentives enjoyed by the corporate constituency and gains ex post can compensate for ex ante losses of productive efficiency, especially given concerns regarding the existence of ex post gains.

CONCLUSION

Consistent application in the first twenty-five district court cases post-\textit{eBay} strongly suggests that the market competition requirement is becoming an entrenched doctrine at the district court level. However, the divergent legal standards used by district courts turning on status as a market competitor are in tension with the Supreme Court's unanimous holding that courts should not apply \textit{eBay}'s four-factor test in a manner that makes the injunctive remedy unavailable based on broad classifications. Contrary to the Supreme Court's holding, the market competition requirement does create a broad class of plaintiffs for whom injunctions are not obtainable. Categorical denial of injunctions to patent-holders that do not market their invention is undesirable not only because it goes against the letter of the \textit{eBay} opinion, but because it is bad policy as well.

\footnote{ex ante incentives for the group of winners may be small given the fact that corporate entities have access to markets giving them ample commercial incentives to innovate already. Any gain realized by a particular market-competing entity would be further mitigated, if not eliminated, because it too could be denied injunctions under the market competition requirement if not competing in the market in the inventive area covered by the patent in question.}


The market competition requirement addresses some of the problems resulting from holdup, but the collateral damage is high. The market competition requirement may decrease both competition and incentives to innovate for individual "self-made" inventors, who form a substantial constituency that drives a large segment of patenting activity. The combined effect of the loss in competition when courts deny injunctions to would-be competitors and losses due to decreased incentives to innovate raises serious questions about the wisdom of continued application of the market competition requirement.