

# Berkeley

## [technology law Journal]

ANNUAL REVIEW OF LAW AND TECHNOLOGY

***i4i and the Presumption of Validity:  
Limited Concerns over the Insulation of Weak Patents***  
*Ryan Klimczak*

VOLUME 27  
AR ONLINE  
**20  
12**

UNIVERSITY OF CALIFORNIA, BERKELEY  
**SCHOOL OF LAW  
BOALT HALL**

# ***i4i* AND THE PRESUMPTION OF VALIDITY: LIMITED CONCERNS OVER THE INSULATION OF WEAK PATENTS**

Ryan R. Klimczak<sup>†</sup>

In *Microsoft Corp. v. i4i Ltd.*, the Supreme Court maintained the status quo by upholding the Federal Circuit’s ruling that an invalidity defense requires a heightened clear and convincing evidentiary standard.<sup>1</sup> The Supreme Court’s ruling represented a pivotal moment for both sides of the debate over what level of validity should adhere to issued patents, as evinced by the stark divide in amicus briefs filed in the case. The technology industry, beleaguered by an onslaught of costly and vexatious infringement suits, clamored for a lower evidentiary standard to invalidate more readily weak patents asserted against them.<sup>2</sup> Across the aisle, the pharmaceutical and biotechnology industries, whose revenue drivers often reside in a few key blockbuster drugs secured by a handful of patents, argued to preserve the strong presumption of validity attached to issued patents.<sup>3</sup> Despite these fears, the Note argues that the *i4i* decision ultimately presents little cause for alarm for either industry.<sup>4</sup>

The Court’s ruling seeks to preserve a consistent approach towards the treatment of a patent’s “presumed validity,” underscoring important policy considerations of maintaining secure and reliable property rights that are

---

© 2012 Ryan R. Klimczak.

† J.D. Candidate, 2013, University of California, Berkeley School of Law.

1. *Microsoft Corp. v. i4i Ltd.*, 131 S. Ct. 2238 (2011). Clear and convincing evidence is “evidence indicating that the thing to be proved is highly probable or reasonably certain. This is a greater burden than preponderance of the evidence, the standard in most civil trials, but less than evidence beyond a reasonable doubt, the norm for criminal trials.” BLACK’S LAW DICTIONARY 500 (9th ed. 2009).

2. *See, e.g.*, Brief for Apple, Inc., et al. as Amici Curiae Supporting Petitioner, *i4i*, 131 S. Ct. 2238 (No. 10-290), 2011 WL 380827; Brief for Google, Inc., et al. as Amici Curiae Supporting Petitioner, *i4i*, 131 S. Ct. 2238 (No. 10-290), 2011 WL 380826; Brief for SAP America, Inc., et al., as Amici Curiae Supporting Petitioner, *i4i*, 131 S. Ct. 2238 (No. 10-290), 2011 WL 380834.

3. *See, e.g.*, Brief for Biotechnology Indus. Org., et al. as Amici Curiae Supporting Respondent, *i4i*, 131 S. Ct. 2238 (No. 10-290), 2011 WL 1059617; Brief for The Pharm. Research and Mfrs. of America as Amici Curiae Supporting Respondent, *i4i*, 131 S. Ct. 2238 (No. 10-290), 2011 WL 994259.

4. *See infra* Part III.

congruous with inventor expectations and reliance interests.<sup>5</sup> Holding otherwise would have skewed the terms of the “patent bargain”<sup>6</sup> and risked eroding the constitutional underpinnings of patent law to ensure “progress in the arts and sciences”<sup>7</sup> by disincentivizing innovation. This Note seeks to assess the practical consequences of the *i4i* holding. The Court’s decision will likely have only a small impact within the scope of a jury trial given the low frequency of decisions that hinge on the preponderance of the evidence standard, as well as the subtle distinction between standards themselves in the eyes of jurors.<sup>8</sup> Furthermore, the application of the heightened evidentiary standard solely to factual disputes in invalidity challenges will dampen the ruling’s effect since “many claims of invalidity rest . . . upon how the law applies to facts as given.”<sup>9</sup>

Ultimately, the Court’s holding, combined with the effects of the America Invents Act<sup>10</sup> (“AIA”) will beneficially alter the calculus of invalidity defense strategies by encouraging defendants to seek invalidation<sup>11</sup> outside of litigation through proceedings at the Patent and Trademark Office (“PTO”).<sup>12</sup> The technical sophistication of PTO examiners and administrative judges, coupled with a more streamlined process for invalidation, will alleviate the concerns that companies like Microsoft have regarding the insulation of “bad” patents by ensuring a more accurate and prompt invalidity process.<sup>13</sup>

This Note proceeds in three parts. Part I explores the history of the clear and convincing standard. Part II examines the *i4i* decision and the Court’s rationale for upholding the standard. Finally, Part III addresses the primary concerns voiced by the technology industry that maintaining heightened standards will unnecessarily shield weak patents. These concerns overlook

---

5. See Shubba Ghosh, *Patents and the Regulatory State: Rethinking the Patent Bargain Metaphor After Eldred*, 19 BERKELEY TECH. L.J. 1315, 1319–49 (2004).

6. The “patent bargain” is the general notion “that a patent represents the grant of the right of exclusivity in exchange for the disclosure of a novel invention.” *Id.* at 1315.

7. U.S. CONST. art. I, § 8, cl. 8.

8. See *infra* Part III.

9. Microsoft Corp. v. i4i Ltd., 131 S. Ct. 2238, 2253 (2011) (Breyer, J., concurring); see *infra* Section III.B.

10. President Barack Obama signed into law the Leahy-Smith American Invents Act on September 16, 2011. The Act represents a sweeping change to the U.S. Patent system, including the institution of a “first to file” system, the elimination of interference proceedings, and the creation of a post-grant and *inter partes* review system. See *infra* Part III. Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011).

11. For purposes of this Note, invalidity is taken to encompass a finding of unpatentability in a PTO proceeding.

12. See *infra* Section III.D.

13. *Id.*

the limited consequences of *i4i* in two key respects: the small role that evidentiary standards actually play in invalidity determinations during litigation, and the availability of new and more effective avenues for patent invalidation created by the AIA.

## I. THE EVOLUTION OF THE CLEAR AND CONVINCING STANDARD

In initially evaluating patent applications, examiners at the PTO must determine whether an invention falls within one of the express categories of patentable subject matter defined in § 101 and, further, analyze whether it meets the statutory requirements of novelty and non-obviousness, as defined in § 102 and § 103 under Title 35 of the U.S. Code.<sup>14</sup> These inquiries likewise shape a potential infringer's invalidity defense.<sup>15</sup> However, in asserting the defense, "[t]he burden of establishing invalidity . . . rest[s] on the party asserting such invalidity."<sup>16</sup>

### A. AN UNCERTAIN STANDARD PRIOR TO THE CREATION OF THE FEDERAL CIRCUIT

The Supreme Court's opinion in *Radio Corp. of America v. Radio Engineering Laboratories, Inc.* (RCA), written prior to the enactment of the 1952 Patent Act, articulated the strong presumption of a patent's validity at common law.<sup>17</sup> The RCA court held that when challenging the validity of a patent, "there is a presumption of validity, a presumption not to be overthrown except by clear and cogent evidence."<sup>18</sup> The RCA Court underscored the force that the presumption carried in early jurisprudence by noting the "varying expression" of this presumption by previous court decisions.<sup>19</sup> In the 1926 decision of *Austin Machine Co. v. Buckeye Traction Ditcher Co.*, the Sixth Circuit held that "the presumption of the validity of the patent is such that the defense of invention by another must be established by the clearest proof—perhaps beyond reasonable doubt."<sup>20</sup> The Supreme Court's 1873 decision in *Coffin v. Ogden* further held that the "burden of proof rests

---

14. 35 U.S.C. §§ 101–103 (2007).

15. 35 U.S.C. § 282 (2007).

16. *Id.*

17. *See* *Radio Corp. of America v. Radio Eng'g Lab., Inc.*, 293 U.S. 1 (1937).

18. *Id.* at 2.

19. *Id.* at 7.

20. *Id.* at 8 (citing *Austin Mach. Co. v. Buckeye Traction Ditcher Co.*, 13 F.2d 697, 700 (6th Cir. 1926)).

upon . . . [the defendant], and every reasonable doubt should be resolved against him . . . . [T]he law requires not conjecture, but certainty.”<sup>21</sup>

However, as Etan Chatlynne notes, prior to the creation of the Federal Circuit in 1982, regional appellate courts diverged from this approach.<sup>22</sup> Notably, all twelve regional circuits held that a patent’s presumption of validity could be diminished or even eliminated in light of new prior art, and thus a lower preponderance of the evidence standard would suffice.<sup>23</sup> For instance, the Eleventh Circuit held in *Manufacturing Research Corp. v. Graybar Electric Co.* that when the Patent Office did not consider pertinent prior art in its review of patent applications, “the burden upon the challenging party is lessened, so that he need only introduce a preponderance of the evidence to invalidate a patent.”<sup>24</sup> Similarly, the Fourth Circuit held in *Heyl & Patterson, Inc. v. McDowell Co.* that “the presumption of validity can be weakened or destroyed where there has been a failure to cite prior art before the patent examiner.”<sup>25</sup> Indeed, precedent within all the circuits contained similarly strong language.<sup>26</sup> Thus, with respect to prior art not considered by the PTO, the early common law evidentiary standard appears to depart from a strong presumption of patent validity.<sup>27</sup>

---

21. *Coffin v. Ogden*, 85 U.S. 120, 124 (1 Wall. 1873).

22. See Etan S. Chatlynne, *The Burden of Establishing Patent Invalidity: Maintaining a Heightened Evidentiary Standard Despite Increasing “Verbal Variances”*, 31 CARDOZO L. REV. 297, 305–09 (2011).

23. *Id.*

24. *Id.* at 308 n.73 (citing *Mfr. Research Corp. v. Graybar Elec. Co.*, 679 F.2d 1355, 1361 (11th Cir. 1982)).

25. *Id.* (citing *Heyl & Patterson, Inc. v. McDowell Co.*, 317 F.2d 719, 722 (4th Cir. 1963)).

26. See *id.* (“Before the Federal Circuit’s creation in 1982, the regional appellate courts . . . had either weakened or removed the presumption of validity . . . in cases where the PTO neither found nor considered pertinent prior art. The regional circuits held that in such cases they should not defer to the PTO.”); see, e.g., *Plastic Container Corp. v. Cont’l Plastics of Oklahoma, Inc.*, 708 F.2d 1554, 1558 (10th Cir. 1983); *Baumstimler v. Rankin*, 677 F.2d 1061, 1066 (5th Cir. 1982); *Futorian Mfg. Corp. v. Dual Mfg. & Eng’g, Inc.*, 528 F.2d 941, 943 (1st Cir. 1976); *Alcor Aviation, Inc. v. Radair, Inc.*, 527 F.2d 113, 115 (9th Cir. 1975); *U.S. Expansion Bolt Co. v. Jordan Indus., Inc.*, 488 F.2d 566, 569 (3d Cir. 1973); *Henry Mfg. Co. v. Commercial Filters Corp.*, 489 F.2d 1008, 1013 (7th Cir. 1972); *Ralston Purina Co. v. Gen. Foods Corp.*, 442 F.2d 389, 390 (8th Cir. 1971); *Eisele v. St. Amour*, 423 F.2d 135, 138–39 (6th Cir. 1970); *Formal Fashions, Inc. v. Braiman Bows, Inc.*, 369 F.2d 536, 539 (2d Cir. 1966); *Turzillo v. P. & Z. Mergentime*, 532 F.2d 1393, 1399 (D.C. Cir. 1976).

27. See *Microsoft Corp. v. i4i Ltd.*, 131 S. Ct. 2238, 2243 (2011).

B. THE FEDERAL CIRCUIT'S ADOPTION OF A STATIC STANDARD

The creation of the Federal Circuit with jurisdiction over the adjudication of patent claims largely supplanted this regional circuit precedent.<sup>28</sup> The Federal Circuit held that the burden of proving invalidity of a patent “is constant and never changes and is to convince the court of invalidity by clear evidence.”<sup>29</sup> Importantly, the Federal Circuit clarified that the evidentiary standard remains static, regardless of whether the PTO considered invalidating evidence during the original examination.<sup>30</sup> Although rejecting the possibility of a dual standard, the court drew a distinction between the two types of art, holding that

what the production of new prior art or other invalidating evidence not before the PTO does is to eliminate, or at least reduce, the element of deference due the PTO, thereby partially, if not wholly, discharging the attacker's burden, but neither shifting nor lightening it or changing the standard of proof.<sup>31</sup>

According to this distinction, new evidence lowers the hurdle for a successful invalidity defense because it avoids the deference-related issues inherent in using prior art already considered by the PTO. Using this latter type of art requires the proponent to show that expert examiners at the PTO made erroneous judgments in their assessment of the prior art.<sup>32</sup> New art avoids this pitfall because the burden “is fully sustained merely by . . . applying the proper law.”<sup>33</sup>

---

28. See, e.g., *R.R. Dynamics, Inc. v. A. Stucki Co.*, 727 F.2d 1506, 1517 (Fed. Cir. 1984); *American Hoist & Derrick Co. v. Sowa & Sons, Inc.*, 725 F.2d 1350, 1358–60 (Fed. Cir. 1984); *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 1549 (Fed. Cir. 1983); *SSIH Equip. S.A. v. U.S. Int'l Trade Comm'n*, 718 F.2d 365, 375 (Fed. Cir. 1983); *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1534 (Fed. Cir. 1983); Chatlynne, *supra* note 22, at 309–10; David O. Taylor, *Clear but Unconvincing: The Federal Circuit's Invalidity Standard*, 21 *FORDHAM INTELL. PROP. MEDIA & ENT. L.J.* 293, 298–308 (2011).

29. *American Hoist*, 725 F.2d at 1360.

30. *Id.* at 1359–60 (“When an attacker, in sustaining the burden imposed by § 282, produces prior art or other evidence not considered in the PTO, there is, however, no reason to defer to the PTO so far as its effect on validity is concerned. Indeed, new prior art not before the PTO may so clearly invalidate a patent that the burden is fully sustained merely by proving its existence and applying the proper law; but that has no effect on the presumption or on who has the burden of proof. They are static and in reality different expressions of the same thing—a single hurdle to be cleared. Neither does the standard of proof change; it must be by clear and convincing evidence or its equivalent, by whatever form of words it may be expressed.” (emphasis omitted)).

31. *Id.* at 1360.

32. See *id.*

33. *Id.* at 1360.

C. UNIFYING PATENT LAW: THE SPLIT BETWEEN REGIONAL CIRCUITS  
AND THE FEDERAL CIRCUIT

Congress initially created the Federal Circuit in response to the large difference in the rates at which the regional circuit courts would hold patents invalid, and in an effort to promote unity in patent law, consistency in patent rights, and discourage forum shopping.<sup>34</sup> Underscoring this concern, one study found that the variance of validity rates among circuits in the pre-Federal Circuit era was six times higher than the variance following the establishment of the Federal Circuit.<sup>35</sup> Moreover, some Federal Circuit supporters sought to “rescue patents from a judiciary often suspicious, if not overtly hostile, towards patents”<sup>36</sup>—a view exemplified by the regional circuit precedent requiring a lower standard to invalidate patents in certain circumstances, as discussed in Section I.A, *supra*. Since the *American Hoist* decision in 1984, the Federal Circuit has consistently maintained its stance regarding a patent’s presumption of validity under § 282<sup>37</sup> and has furthermore upheld the validity of a greater number of patents relative to the regional circuits prior to the Federal Circuit’s creation.<sup>38</sup> Following the guidance of the Federal Circuit, which has appellate jurisdiction for claims arising under federal patent law,<sup>39</sup> district courts have employed the clear and convincing standard for invalidating patents for the past three decades.<sup>40</sup>

---

34. See Fed. Judicial Ctr., *Landmark Judicial Legislation* (April 2, 1982), [http://www.fjc.gov/history/home.nsf/page/landmark\\_22.html](http://www.fjc.gov/history/home.nsf/page/landmark_22.html); Scott Atkinson et al., *The Economics of A Centralized Judiciary: Uniformity, Forum Shopping, and the Federal Circuit*, 52 J.L. & ECON 411, 421–38 (2009).

35. Atkinson, *supra* note 34, at 421 (“[T]he variation in validity rates is much larger for the pre-CAFC era . . . The variance of the circuits’ validity rates, .024, is about six times as large as .004, the variance for the [Federal Circuit] era.”).

36. Glynn S. Lunney, Jr., *Patent Law, the Federal Circuit, and the Supreme Court: A Quiet Revolution*, 11 SUP. CT. ECON. REV. 1, 2 (2004).

37. See, e.g., *ALZA Corp. v. Andrx Pharm., LLC*, 603 F.3d 935, 940 (Fed. Cir. 2010); *Auto. Tech. Int’l, Inc. v. BMW of N. Am., Inc.*, 501 F.3d 1274, 1281 (Fed. Cir. 2007); *AK Steel Corp. v. Sollac & Ugine*, 344 F.3d 1234, 1238–39 (Fed. Cir. 2003); *Ultra-Tex Surfaces, Inc. v. Hill Bros. Chemical Co.*, 204 F.3d 1360, 1367 (Fed. Cir. 2000); *Greenwood v. Hattori Seiko Co.*, 900 F.2d 238, 240–41 (Fed. Cir. 1990).

38. See Lunney, *supra* note 36, at 2.

39. 28 U.S.C. § 1338(a) (2011). The Supreme Court’s decision in *Holmes Group, Inc. v. Vornado Air* underscored that regional circuits still had jurisdiction for patent-based claims asserted under a cross claim or counter claim. See *Holmes Group, Inc. v. Vornado Air*, 535 U.S. 826 (2002). Thus, disparities among circuit approaches concerning a patent’s presumption of validity remained theoretically possible prior to the Supreme Court’s *i4i* decision. However, since *Holmes* and until Congress passed the AIA, the number of cases containing patent law counterclaims where regional circuits obtained appellate jurisdiction remained exceedingly rare. See Jiwen Chen, *The Well-Pleaded Complaint Rule and Jurisdiction over Patent Law Counterclaims: An Empirical Assessment of Holmes Group and Proposals for Improvement*, 8

Nonetheless, the split between these treatments came to the fore in *KSR International Co. v. Teleflex, Inc.*—one of the Supreme Court’s seminal cases on non-obviousness.<sup>41</sup> As a defense against infringement, KSR sought to invalidate Teleflex’s patent based on obviousness grounds, arguing that a preponderance of the evidence standard should control an invalidity challenge.<sup>42</sup> Countering this notion, Teleflex cited in its brief the Supreme Court’s decision in *RCA* and the Federal Circuit’s consistent application of a clear and convincing standard as dispositive of a heightened evidentiary standard in invalidity challenges.<sup>43</sup> In its reply brief, KSR disputed the historical consistency of this standard by pointing out that “prior to the creation of the Federal Circuit, regional Circuits had held . . . that in the ‘usual’ patent case, ‘a preponderance of the evidence is sufficient to establish invalidity.’”<sup>44</sup> Since the preponderance of the evidence standard “is applicable in civil actions between private litigants unless ‘particularly important individual interests or rights are at stake,’” KSR claimed that if Congress had intended to apply a clear and convincing standard, it would have specified so in drafting 35 U.S.C. § 282.<sup>45</sup> In its holding, the Supreme Court side-stepped the issue by merely noting in dicta that “the rationale underlying the presumption” of a patent’s validity “seems much diminished” when the PTO failed to consider the relevant art.<sup>46</sup> Following the decision, the status of the presumption of validity became more uncertain for patents issued with relevant art not considered by the PTO in light of the vague language used in *KSR*, which likely prompted the Supreme Court to grant

---

NW. J. TECH. INTELL. PROP. 94, 103 (2009). In the six years following the decision, only five of these cases made it directly to regional circuit courts versus nearly three thousand patent cases at the Federal Circuit. *Id.* The America Invents Act now overrules the specific holding of *Holmes Group*, defining the Federal Circuit’s appellate jurisdiction to include an appeal from a final decision of a district court “in any civil action arising under, or in any civil action in which a party has asserted a compulsory counterclaim under, any Act of Congress relating to patents or plant variety protection.” Leahy-Smith America Invents Act, Pub. L. No. 112-29, § 19(b)(1), 112th Cong. (2011).

40. See Chatlynnne, *supra* note 22, at 309.

41. See *KSR Int’l Co. v. Teleflex, Inc.*, 550 U.S. 398 (2007).

42. See Reply Brief for Petitioner at 19, *KSR*, 550 U.S. 398 (2007) (No. 04-1350), 2006 WL 3367870.

43. See Brief for Respondent at 46, *KSR*, 550 U.S. 398 (2007) (No. 04-1350), 2006 WL 2989549.

44. Reply Brief for Petitioner, *supra* note 42, at 19 (citing *Dickstein v. Seventy Corp.*, 522 F.2d 1294, 1297 (6th Cir. 1975)).

45. *Id.* at 19.

46. *KSR*, 550 U.S. at 426.



certiorari to settle the proper interpretation of the statutory presumption of validity.<sup>47</sup>

## II. THE *i4i* HOLDING AND THE SUPREME COURT'S RATIONALE

*i4i* brought suit against Microsoft Corp. in the Eastern District of Texas, alleging that Microsoft infringed United States Patent No. 5,787,449 (“the ’449 patent”) with its Office 2003 and 2007 products.<sup>48</sup> Microsoft counterclaimed and sought to invalidate the ’449 patent based upon a § 102(b) on-sale bar concerning *i4i*’s prior sale of its S4 software program.<sup>49</sup> However, Microsoft objected to holding this evidence, which was not considered by the PTO, to a clear and convincing evidentiary standard, arguing that a preponderance of the evidence standard should apply.<sup>50</sup> The district court rejected Microsoft’s proposed standard and a jury found in favor of *i4i*, awarding \$200 million in damages.<sup>51</sup> On appeal, the Federal Circuit and the Supreme Court affirmed.<sup>52</sup>

### A. BACKGROUND OF THE ’449 PATENT

The ’449 patent relates to an improved method for editing computer documents involving “a system and method for the separate manipulation of the architecture and content of a document . . . .”<sup>53</sup> The technology incorporates Standard Generalized Markup Language (“SGML”) editing functionalities into regular word processing programs.<sup>54</sup> This involves decomposing a structured document into at least two component parts, the document structure (e.g., SGML metacodes) and the document content.<sup>55</sup> A user can then edit each independently and subsequently re-integrate the structure and content, allowing for greater simplicity and efficiency in the

---

47. See, e.g., *Krippelz v. Ford Motor Co.*, 750 F. Supp. 2d 938, 959 (N.D. Ill. 2010); *Tokyo Keiso Co., Ltd. v. SMC Corp.*, 533 F. Supp. 2d 1047, 1056 (C.D. Cal. 2007).

48. *i4i Ltd. v. Microsoft Corp.*, 670 F. Supp. 2d 568, 572–74 (E.D. Tex. 2009), *aff’d*, *i4i Ltd. v. Microsoft Corp.*, 598 F. 3d 831 (Fed. Cir. 2010), *aff’d*, 131 S. Ct. 2238 (2011).

49. *i4i Ltd.*, 670 F. Supp. 2d at 583–89.

50. *Id.* at 588–89.

51. *Id.* at 573.

52. See *i4i Ltd. v. Microsoft Corp.*, 598 F. 3d 831 (Fed. Cir. 2010), *aff’d*, 131 S. Ct. 2238 (2011).

53. U.S. Patent No. 5,787,449 at col. 3-5 (filed July 28, 1998).

54. *Id.*

55. See *id.*

editing of word documents.<sup>56</sup> i4i filed the patent with the PTO on June 2, 1994, and the patent subsequently issued on July 28, 1998.<sup>57</sup>

#### B. PROCEDURAL HISTORY

In March 2007, i4i filed a patent infringement suit alleging that Microsoft's use of Extensible Markup Language ("XML") functionality in its Office 2003 and 2007 products violated the '449 patent.<sup>58</sup> Microsoft counterclaimed and sought to hold the '449 patent invalid and unenforceable, claiming, in part, that i4i's prior sale of its S4 software program rendered the patent invalid under the § 102(b) on-sale bar.<sup>59</sup> Concurrently, Microsoft filed an *ex parte* reexamination<sup>60</sup> against the patent in November of 2008. However, because of the documentary prior art requirements of reexamination, Microsoft could not adopt the on-sale bar invalidity approach it used in litigation.<sup>61</sup> Instead, it used two patent references,<sup>62</sup> which were ultimately unsuccessful. The PTO denied a further reexamination request filed in August of 2010.<sup>63</sup>

During litigation, the use of i4i's S4 software as a § 102(b) bar proved problematic since i4i had destroyed the software's source code prior to the suit, making it extremely difficult to assess whether the S4 software anticipated the '449 patent.<sup>64</sup> Thus, the factual question of whether S4 practiced the key invention disclosed in the '449 patent hinged on testimony by S4's inventors.<sup>65</sup> In proving its invalidity challenge of this patent, Microsoft objected to i4i's proposed jury instruction that it was subject to a clear and convincing standard in light of the fact that the S4 software had not been before the PTO during the '449 patent's examination.<sup>66</sup> Instead,

---

56. *See id.*

57. *Id.*

58. Microsoft Corp. v. i4i, Ltd., 131 S. Ct. 2238, 2243 (2011).

59. *Id.* at 2243–44. The on-sale bar under 35 U.S.C. § 102(b) is created when an invention has been on sale for over one year, barring patentability. 35 U.S.C. § 102(b) (2007).

60. Reexamination Request No. 90/010347 (filed Nov. 21, 2008). *Ex parte* reexaminations, discussed in Section III.D.1, *infra*, allow third parties to invalidate patents using prior art limited to patents and written publications.

61. 35 U.S.C. § 301 (2007) (providing "any person at any time may cite to the Office in writing prior art consisting of patents or printed publications which that person believes to have a bearing on the patentability of any claim of a particular patent.").

62. Reexamination Request No. 90/010347 (filed Nov. 21, 2008).

63. Reexamination Request No. 90/011,198 (filed Aug. 31, 2010).

64. i4i destroyed the source code, in its normal course of business, when they ceased development of the software nine years prior to the suit. *See i4i*, 131 S. Ct. at 2244.

65. *Id.*

66. *Id.* Microsoft also raised an invalidity challenge for the '449 patent based on inequitable conduct for failing to disclose the S4 software program during the prosecution of

Microsoft provided two alternative arguments. Microsoft first contended that a jury need only be persuaded by a preponderance of the evidence standard in an invalidity defense.<sup>67</sup> Alternatively, if a clear and convincing burden of proof applied as a general matter, Microsoft argued for a hybrid approach, requesting a burden of proof by a preponderance of the evidence “based on prior art that the examiner did not review during the prosecution of the patent-in-suit.”<sup>68</sup> Microsoft supported its contention by citing *KSR*, in which the court stated that the rationale underlying the presumption of validity afforded to issued patents “seems much diminished” when the relevant art had not been before the PTO.<sup>69</sup>

The district court rejected both this standard and Microsoft’s request for a new trial based on an improper jury instruction, noting that the *KSR* decision never specifically held that a reduced standard applied when the PTO had not considered a particular piece of prior art.<sup>70</sup> Further, the court noted that Microsoft did not cite firm authority to support its position since, as the court noted, “the law remains overwhelmingly that patents are to be presumed valid and it is the defendant’s burden to provide invalidity by clear and convincing evidence.”<sup>71</sup> Ultimately, the jury found in favor of i4i in May 2009, and awarded \$200 million in damages.<sup>72</sup> The Federal Circuit affirmed this ruling, stating that its recent holdings “make clear that the Supreme Court’s decision in *KSR* . . . did not change the burden of proving invalidity by clear and convincing evidence.”<sup>73</sup>

In a unanimous decision, the Supreme Court affirmed the Federal Circuit’s ruling by examining the statutory language, common law meaning, and legislative intent behind a patent’s presumed validity.<sup>74</sup> In assessing the statutory language of the invalidity defense under § 282 of the Patent Act of 1952, the Court recognized that the statute “includes no express articulation of the standard of proof . . . .”<sup>75</sup> The Court reasoned that the use of the common-law term “presumed valid” by Congress in describing issued patents in the Patent Act created an underlying assumption that the “term . . .

---

the ’449 patent. However, since the court found that the software did not establish a *prima facie* case of unpatentability, the prior art lacked the requisite materiality to establish a successful infringement defense. *Id.*

67. *Id.*

68. *Id.*

69. *KSR Int’l Co. v. Teleflex, Inc.*, 550 U.S. 398, 426 (2007).

70. *i4i Ltd. v. Microsoft Corp.*, 670 F. Supp. 2d 568, 588 (E.D. Tex. 2009).

71. *Id.*

72. *Id.* at 573.

73. *i4i Ltd. v. Microsoft Corp.*, 598 F.3d 831, 848 (Fed. Cir. 2010).

74. *See Microsoft Corp. v. i4i Ltd.*, 131 S. Ct. 2238, 2245–53 (2011).

75. *Id.* at 2245.

comes with a common law meaning, absent anything pointing another way.”<sup>76</sup> Employing basic tenants of statutory construction, the Court concluded that Congress did not intend to drop a heightened standard of proof merely because § 282 failed to reiterate it expressly.<sup>77</sup>

The Court further rejected a hybrid evidentiary standard that would alternatively subject evidence not before the PTO during examination to a lesser, preponderance of the evidence standard.<sup>78</sup> Again looking to legislative intent, the Court remarked that nothing within the language of § 282 suggested that the standard of proof “would rise and fall with the facts of each case,” and had it taken the “unusual and impractical step of enacting a variable standard of proof that must itself be adjudicated in each case . . . we assume it would have said so expressly.”<sup>79</sup> However, the Court recognized, as the Federal Circuit had done consistently,<sup>80</sup> that new evidence may “carry more weight” in an invalidity defense relative to evidence previously considered by the PTO, and thus an infringer’s burden of clear and convincing evidence may be easier to sustain.<sup>81</sup>

### III. THE LIMITED EFFECTS OF THE *I4I* RULING

In *i4i*, Microsoft contended that the clear and convincing standard hinders the goals of patent law by dampening innovation and shielding spurious patents from invalidity challenges.<sup>82</sup> They argued that current PTO methods for invalidation fail to rectify this problem because third parties cannot assert certain grounds for invalidation, such as the § 102(b) on-sale bar, during reexamination since the process requires documentary prior art.<sup>83</sup> However, the issue of whether lowering the presumption of validity in litigation would mitigate the insulation of “bad” patents from invalidity challenges becomes less significant in light of how seldom evidentiary standards affect invalidity determinations.<sup>84</sup>

---

76. *Id.* (citing *Safeco Ins. Co. of America v. Burr*, 551 U.S. 47, 58 (2007)).

77. *Id.* at 2247.

78. *Id.* at 2250.

79. *Id.*

80. *See, e.g.*, cases cited *supra* note 37.

81. *i4i*, 131 S. Ct. at 2251.

82. *Id.* at 2251–52.

83. *Id.* at 2252.

84. *See* Etan S. Chatlynne, *Investigating Patent Law’s Presumption of Validity—An Empirical Analysis*, 2010 PATENTLY-O PATENT L.J. 37.

A. THE RARITY OF EVIDENTIARY-STANDARD DETERMINATIVE DECISIONS

Although empirical evidence is limited, one analysis of post-KSR Federal Circuit decisions found that 84% of patent challenges were evidentiary-standard independent.<sup>85</sup> Specifically, the study classified outcomes as “evidentiary standard independent” when the court upheld challenges by clear and convincing evidence or when the court granted motions for summary judgment or judgments as a matter of law, since the outcome would not have been affected had a preponderance of the evidence standard controlled.<sup>86</sup> Conversely, the study classified outcomes as “evidentiary standard dependent” when the court rejected an invalidity challenge and the lower court reached its holding following a jury or bench trial since a preponderance of the evidence standard could have swayed the outcome.<sup>87</sup> Importantly, these results underscore the marked rarity in which evidentiary standards affect an invalidity defense in a patent trial as evidence within patent trials may likely speak for itself.<sup>88</sup>

---

85. See Chatlynne, *supra* note 84, at 39–40 (“The data set consists of post-KSR Federal Circuit cases from April 2008 through June 2009 involving three types of invalidity challenges: (1) lack of written description; (2) anticipation (including by prior public use); and (3) obviousness. . . . The following guidelines were further used in determining whether the evidentiary standard may have affected the determination. First, where an invalidity challenge was upheld by clear and convincing evidence, the result is evidentiary-standard independent. By definition, when a clear and convincing standard is satisfied, a preponderance of evidence standard is satisfied too. Second, grants of motion for summary judgment or judgment as a matter of law (“JMOL”) were presumed evidentiary-standard independent because the standard for summary judgment and JMOL—viewing facts in the light most favorable to a non-moving party—is more stringent than either evidentiary standard in the patent context. Third, where a patent challenge was rejected and the lower court reached its judgment following a bench or jury trial, such determination was initially assumed evidentiary-standard dependent because the opposite could not be assumed. Thirty-three cases involving forty-five invalidity challenges were analyzed to collect the empirical data.”).

86. *Id.*

87. *Id.*

88. To this extent, the S4 prior art within *i4i* highlights a unique instance in which a clear and convincing standard served a determinative role. The unavailability of *i4i*’s source code and Microsoft’s reliance on oral testimony necessarily demanded heightened assurances of accuracy given the greater unreliability of witness recollections. See *Finnigan Corp. v. Int’l Trade Comm’n*, 180 F.3d 1354, 1369 (Fed. Cir. 1999). Indeed, courts require corroboration of “any witness whose testimony alone is asserted to invalidate a patent . . . .” *Id.* In *i4i*, Microsoft corroborated the oral testimony of a former *i4i* employee with expert witness testimony. *i4i Ltd. v. Microsoft Corp.*, 598 F.3d 831, 847 (Fed. Cir. 2010).

B. SEPARATING FACTUAL AND LEGAL QUESTIONS OF LAW LIMITS THE REACH OF EVIDENTIARY STANDARDS

As Justice Breyer points out in his concurring opinion in *i4i*, “the evidentiary standard of proof applies to questions of fact and not to questions of law.”<sup>89</sup> Significantly, as Breyer notes, most claims of invalidity rest upon “how the law applies to facts as given,” and not upon factual disputes.<sup>90</sup> This further limits the frequency in which evidentiary standards affect invalidity determinations.<sup>91</sup> Generally, a question of fact only asks whether specific acts, events, or conditions occurred, whereas a question of law, reviewable de novo, involves deciding which legal rule applies.<sup>92</sup> Thus, the higher standard of proof lamented by Microsoft has no bearing on many aspects of an invalidity challenge. For instance, claim interpretation, as a question of law, falls outside of the purview of questions decided by the fact-finder.<sup>93</sup> Since claim interpretation represents such a critical aspect of validity, infringement, and enforceability determinations, judicial decisions in *Markman* hearings have a significant effect on the remainder of the trial, often leading to summary judgment or settlement between parties.<sup>94</sup>

Within an invalidity challenge itself, the clear and convincing standard would only apply to certain issues, such as determining “whether a prior art reference had been published” or “when a product was first sold.”<sup>95</sup> However, this standard would not apply to questions of law, such as determining whether a product was previously in “public use” or whether an invention is “nonobvious.”<sup>96</sup> To this extent, separating out the factual matters from the legal matters in an invalidity challenge could allow a strategic litigant to avoid unnecessarily subjecting himself to a heightened evidentiary standard.<sup>97</sup> As suggested by Justice Breyer, to avoid the common

---

89. *i4i*, 131 S. Ct. at 2253 (Breyer, J., concurring).

90. *Id.*

91. *Id.*

92. BLACK’S LAW DICTIONARY 1070 (9th ed. 2009).

93. *Markman v. Westview Instrument, Inc.*, 517 U.S. 370, 372 (1996) (“[T]he construction of a patent, including terms of art within its claim, is exclusively within the province of the court.”).

94. Based upon the district court’s construction of claim terms in *i4i*, however, Microsoft was unable to evade infringement liability in moving for a judgment as a matter of law. Microsoft argued unsuccessfully that “no reasonable juror could find its accused WORD products infringed the ’449 patent literally or by the doctrine of equivalents.” *i4i Ltd. v. Microsoft Corp.*, 670 F. Supp. 2d 568, 574–76 (E.D. Tex. 2009).

95. *i4i*, 131 S. Ct. at 2253 (Breyer, J., concurring).

96. *Id.*

97. See Stephen A. Weiner, *The Civil Jury Trial and the Law-Fact Distinction*, 54 CAL. L. REV. 1867, 1868–75, 1937 n.358 (1966).

judicial pitfall of blending factual and legal issues, judges should use special verdict forms that guide specific factual inquiries.<sup>98</sup> This would allay some concerns over granting juries too much discretion in invalidity determinations.

This distinction may be most important when determining whether a patent is invalid under 35 U.S.C. § 103 because, under the *KSR* standard, obviousness is a question of law based on the application of facts.<sup>99</sup> In this context, the factual inquiries relate to determining the scope and content of the prior art, the differences between the prior art and the patented object, and the level of skill in the relevant art, as well as secondary considerations such as commercial success, unexpected results, and long felt needs.<sup>100</sup> However, the most contentious aspect of an obviousness determination occurs when the judge, using his discretion, blends these factual inquiries into a legal conclusion. Thus, high evidentiary hurdles do not necessarily factor into the ultimate outcome of § 103-based invalidations as much as they determine the outcomes in pure factual inquiries, such as anticipation.<sup>101</sup>

C. JURY INSTRUCTIONS AND THE HAZINESS OF THE CLEAR AND CONVINCING STANDARD

To the extent that juries, instead of judges, more often decide patent invalidity, the use of jury instructions emphasizing the weight of new art will likely further allay worries about the unnecessary protection of bad patents under *i4i*.<sup>102</sup> Statistics demonstrate that juries typically hold 67% of patents

---

98. *i4i*, 131 S. Ct. at 2253.

99. *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 399 (2007); *Graham v. John Deere Co. of Kan. City*, 383 U.S. 1, 17 (1966); *Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d 707, 719–20 (Fed. Cir. 1984) (“By mandating that validity is a question of law, we understand the Supreme Court to mean that in a bench trial the decision by the trial court with respect to the application of the statute to the facts on the issue of obviousness is a legal decision fully reviewable on appeal . . . . The introduction of a jury can not change the nature of the obviousness decision. It continues to be a legal issue for the court.” (emphasis omitted)).

100. *Graham*, 383 U.S. at 17.

101. However, the defined roles of lay juries and judges in making obviousness determinations remains controversial since Federal Circuit precedent has “held that a jury may render a verdict on the ultimate issue of obviousness.” *See* Petition for Writ of Certiorari at \*i, *Medela AG v. Kinetic Concepts, Inc.*, 130 S. Ct. 624 (2009) (No. 09-198), 2009 WL 2509227. Thus, although judges have discretion in matters of obviousness as a matter of law, it is not clear “whether a person accused of patent infringement has a *right* to independent judicial, as distinct from lay jury, determination of whether an asserted patent claim satisfies the ‘non-obvious subject matter’ condition for patentability.” *Id.* (emphasis added).

102. Indeed, only 3% of patent cases ever reach jury trial, as settlements and pre-trial court judgments have proven effective tools for litigants. *See* ADMIN. OFFICE OF THE U.S. COURTS, ANNUAL REPORT OF THE DIRECTOR 168 (2010).

valid, while judges hold 57% of patents valid in bench trials and just 28% of patents in cases decided in pre-trial motions.<sup>103</sup> The disparity between judge and jury invalidity rates underscores the strategic advantages for plaintiffs in seeking jury-based decisions.

In patent infringement cases, plaintiffs are able to show the jury the red ribbon and gold seal on their issued patent, conjuring up whatever reverence jurors have for government-granted patents.<sup>104</sup> Thus, a jury instruction emphasizing that a piece of prior art had not been before the PTO during the patent's prosecution may allow a juror to more readily find the patent invalid. The juror may separate the old prior art from the new, making an invalidity defense by clear and convincing evidence "easier to sustain" when the defense is based on new prior art.<sup>105</sup> Specifically, the instruction that the jury should "consider that it has heard evidence that the PTO had no opportunity to evaluate before granting the patent" may reduce the weight of a patent's presumed validity, despite strict judicial application of a clear and convincing standard.<sup>106</sup> Indeed, an analysis of past district court invalidity determinations reveals that the type of prior art relied on by challengers has a notable effect on the outcome of validity decisions, with the probability of invalidity based on cited and uncited art at 29.6% and 40.8%, respectively.<sup>107</sup>

Notably, the Federal Circuit's 2007 holding in *z4 Technology v. Microsoft Corp.* highlighted this point. The Federal Circuit affirmed a district court's refusal of an instruction emphasizing the weight of new art because it "might lead the jury to believe that the burden of proof is less than clear and convincing when prior art was not considered by the PTO."<sup>108</sup> Despite this, however, the Supreme Court in *i4i* expressly recommended that district courts issue this instruction.<sup>109</sup>

Furthermore, a juror's limited ability to grasp the subtle differences between evidentiary standards, along with the extensive length of jury

---

103. John R. Allison & Mark A. Lemley, *Empirical Evidence on the Validity of Litigated Patents*, 26 AIPLA Q.J. 185, 213 (1998).

104. See Paul F. Morgan, *Microsoft v. i4i—Is the Sky Really Falling?*, PATENTLY-O BLOG (Jan. 09, 2011), <http://www.patentlyo.com/patent/2011/01/microsoft-v-i4i-is-the-sky-really-falling.html>.

105. *Microsoft Corp. v. i4i Ltd.*, 131 S. Ct. 2238, 2251 (2011).

106. *Id.*

107. Allison, *supra* note 103, at 225.

108. *z4 Tech. v. Microsoft Corp.*, 507 F.3d 1340, 1354–55 (Fed. Cir. 2007).

109. *i4i*, 131 S. Ct. at 2252 ("In this respect, although we have no occasion to endorse any particular formulation, we note that a jury instruction on the effect of new evidence can, and when requested, most often should be given. When warranted, the jury may be instructed to consider that it has heard evidence that the PTO had no opportunity to evaluate before granting the patent.").



instructions,<sup>110</sup> may together dampen the effect of the clear and convincing standard on the ultimate outcome of invalidity determinations. As one research study notes:

A general characterization of juror's cognitive performance during trials is that they are good at remembering and understanding the facts of a case but are poor at remembering, understanding and applying the relevant laws . . . . In an earlier article . . . we characterized the situations as follows: "Study after study has shown that jurors do not understand the law they are given, often performing at no better than chance level on objective tests of comprehension."<sup>111</sup>

The use of special verdict forms, such as the Northern District of California's model patent jury instructions,<sup>112</sup> may be useful in overcoming these perceived deficiencies by guiding the jury's attention to the facts related to key patent findings. For instance, in making a determination of obviousness, the Northern District of California's model instructions pose a series of preliminary questions directed to each of the *Graham* factors,<sup>113</sup> as well as to secondary considerations. The goal of the instructions is ultimately to guide the jury to consider whether "the Alleged Infringer has proven that it is highly probable that the claim of Patent Holder's patent would have been obvious to a person of ordinary skill in the field."<sup>114</sup>

For patent litigators wary of jury misunderstanding, this may represent an improvement over condensed, single-sentence instructions on obviousness.<sup>115</sup> However, even with more understandable jury instructions, the more subtle distinction between the clear and convincing and the preponderance of the evidence standards may still be lost on the jury, which would ultimately dilute the effect of the *Idi* ruling. As Chief Justice Burger

---

110. See, e.g., MODEL PATENT JURY INSTRUCTIONS pt. III.2-13 (Am. Intellectual Prop. Law Ass'n 2008).

111. Phoebe C. Ellsworth & Alan Reifman, *Juror Comprehension and Public Policy: Perceived Problems and Proposed Solutions*, 6 PSYCH., PUB. POL'Y, & L. 788, 795 (2000) (citing Alan Reifman, S.M. Ellsworth & Phoebe C. Ellsworth, *Real Jurors' Understanding of the Law in Real Cases*, 16 LAW & HUM. BEHAV. 539, 540 (1992)).

112. MODEL PATENT JURY INSTRUCTIONS FOR THE NORTHERN DISTRICT OF CALIFORNIA (2007).

113. The scope and content of the prior art, the level of ordinary skill in the art, the differences between the claimed invention and the prior art, and objective evidence of nonobviousness—such as commercial success, long-felt but unsolved need, and failure of others. *Graham v. John Deere Co. of Kan. City*, 383 U.S. 1, 17 (1966).

114. MODEL PATENT JURY INSTRUCTIONS FOR THE NORTHERN DISTRICT OF CALIFORNIA 61 (2007).

115. See *Hynix Semiconductor Inc. v. Rambus Inc.*, No. C-00-20905 RMW, 2009 WL 112834, at \*18 (N.D. Cal. Jan. 16, 2009).

acknowledged in *Addington v. Texas*, “we probably can assume no more than that the difference between a preponderance of the evidence and proof beyond a reasonable doubt probably is better understood than either of them in relation to the intermediate standard of clear and convincing evidence.”<sup>116</sup> Indeed, studies demonstrate that while jurors understand the difference between a more-likely-than-not (preponderance) standard and a near certainty (beyond a reasonable doubt) standard, “they do not calibrate their decision making to account for the further distinction introduced by the clear and convincing evidence standard.”<sup>117</sup> In addition, studies show that expressing legal standards as defined quantities (e.g., denoting a 71% probability for a clear and convincing threshold) improve juror comprehension in creating verdicts more in line with expectations during mock jury experiments.<sup>118</sup> However, the legal community eschews defining evidentiary standards in such terms, largely out of fears of watering down standards, which in a criminal context would recognize an “intentional and permissible risk of convicting an innocent defendant.”<sup>119</sup> Given the complexity of patent trials and lack of definitive empirical evidence, the ultimate effect of the clear and convincing standard on jury invalidity verdicts remains unclear.<sup>120</sup> Nonetheless, mock jury experiments reinforce the notion that concerns of a heightened evidentiary standard in shielding bad patents may be exaggerated.<sup>121</sup>

D. THE AMERICAN INVENTS ACT: NEW AND MORE EFFICIENT AVENUES FOR INVALIDATION

The new American Invent's Act addresses some of Microsoft's concerns relating to the insulation of weak patents through a high evidentiary standard by creating a new avenue for invalidating patents through the PTO in the form of post-grant reviews (“PGRs”).<sup>122</sup> The restructuring of reexamination proceedings by the AIA, most notably for *inter partes* proceedings, further provides a critical, defensive avenue for would-be defendants to combat

---

116. *Addington v. Texas*, 441 U.S. 418, 425 (1979).

117. Samuel Issacharoff, *The Legal Implications of Psychology: Human Behavior, Behavioral Economics, and the Law*, 51 VAND. L. REV. 1729, 1744 n.47 (1998).

118. See Dorothy K. Kagehiro & W. Clark Stanton, *Legal vs. Quantified Definitions of Standards of Proof*, 9 LAW & HUM. BEHAV. 159, 174 (1985).

119. *Id.*

120. See Jennifer F. Miller, *Should Juries Hear Complex Patent Cases?*, 2004 DUKE L. & TECH. REV. 004, ¶ 29–44 (2004).

121. See Kagehiro, *supra* note 118, at 174.

122. Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284, 305–13 (2011).

suspect patents.<sup>123</sup> The Supreme Court's *i4i* ruling, which cemented the clear and convincing standard in invalidity defense challenges during litigation, will further encourage a move toward more PTO-administered invalidations that subject issued patents to a lesser preponderance of the evidence standard under de novo review.<sup>124</sup> Moreover, PTO examiners give claims their "broadest reasonable interpretation"<sup>125</sup> in lieu of the "ordinary and customary meaning"<sup>126</sup> that attaches during litigation. As stated in *In re Morris*:

[T]he PTO applies to verbiage of the proposed claims the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description contained in the applicant's specification.<sup>127</sup>

This provision reduces the possibility of having limitations read into claims, thus allowing a more expansive application of prior art during PTO proceedings relative to § 282 invalidity challenges.<sup>128</sup> Furthermore, the technical expertise of the PTO provides a more favorable forum for more conceptually challenging pieces of prior art and combinations of prior art that may be less accessible to judges and jurors in litigation.<sup>129</sup> In presenting prior art to lay judges and juries, simplicity and clarity are key strategic considerations for invalidating a patent. To this extent, the use of prior art combinations for obviousness-type arguments under § 103 may face challenges due to complexity, rendering this strategy a dull tool in litigation.<sup>130</sup> This represents a lost opportunity given that § 103 arguments are often more readily available than anticipation arguments in the universe of prior art, and

---

123. *Id.*

124. Compare MANUAL OF PATENT EXAMINING PROCEDURE § 706(I) (2007) [hereinafter M.P.E.P.] ("the standard to be applied in all cases is the 'preponderance of the evidence' test. In other words, an examiner should reject a claim if, in view of the prior art and evidence of record, it is more likely than not that the claim is unpatentable."), with *Microsoft Corp. v. i4i Ltd.*, 131 S. Ct. 2238, 2240 (2011) ("§ 282 requires an invalidity defense to be proved by clear and convincing evidence.").

125. *In re Trans Texas Holding Corp.*, 498 F. 3d 1290, 1295 (Fed. Cir. 2007); M.P.E.P. § 2258(I)(G) (2007).

126. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005).

127. *In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997).

128. See M.P.E.P. § 2258(I)(G) (2007) ("limitations in the specification are not read into the claims"); see also Eldora L. Ellison & Jon E. Wright, *Litigation or Reexamination*, WORLD INTELL. PROP. REV., Jan.-Feb. 2010, at 30, 32.

129. See Ellison, *supra* note 128, at 32.

130. See *id.* See generally Theresa Weisenberger, *An "Absence of Meaningful Appellate Review": Juries and Patent Obviousness*, 12 VAND. J. ENT. & TECH. L. 641 (2010).

in some respects are more difficult to overcome.<sup>131</sup> The use of PTO-administered invalidations salvages this tool given examiners' greater degree of technical sophistication and comfort in utilizing § 103-based rejections.<sup>132</sup>

Overall, the shift from lay jury to office-mediated invalidations will prove beneficial in filtering out unmeritorious patents within the patent system.<sup>133</sup>

### 1. Reexaminations and Inter Partes Reviews: A Proactive Invalidity Tool

Prior to Congress's creation of the first reexamination statute in 1980, as codified at 35 U.S.C. §§ 301–307, courts could only resolve fundamental issues relating to raising new questions of patentability and the cancellation of claims of issued patents, leading to expensive and inefficient means of combating weak patents.<sup>134</sup> In response, Congress enacted *ex parte* reexaminations to attain three principal benefits:

First, the new procedure could settle validity disputes more quickly and less expensively than the often protracted litigation involved in such cases. Second, the procedure would allow courts to refer patent validity questions to the expertise of the Patent Office . . . . Third, reexamination would reinforce “investor confidence in the certainty of patent rights” by affording the PTO a broader opportunity to review “doubtful patents.”<sup>135</sup>

However, the *ex parte* reexamination process did not prove as popular as originally hoped because third parties could not participate in the proceedings after filing *ex parte* reexamination requests.<sup>136</sup> Noting that allowing third parties to argue in reexamination would reduce the volume of district court patent cases, Congress expanded the reexamination procedure in 1999 through the American Inventors Protection Act by creating *inter partes* reexamination proceedings.<sup>137</sup> Unlike *ex parte* proceedings, a third-party requestor may reply to Office Actions as well as patent owner responses.<sup>138</sup> However, unlike *ex parte* reexaminations, third party requestors who are also

---

131. An anticipatory piece of prior art must disclose every claim limitation of a patent, whereas prior art used in an obviousness-type rejection need only be combined to cumulatively render a claim obvious. 35 U.S.C. §§ 102–103 (2007). See *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 399 (2007); Bill Naifeh, *The Advantages of Narrow Patent Claiming*, THE PATENT LIGHT (March 9, 2010), <http://www.patentlight.com/?p=137>.

132. See Ellison, *supra* note 128, at 32.

133. See *infra* Section III.D.1, 2.

134. See *Patlex Corp. v. Mossinghoff*, 758 F.2d 594, 602 (Fed. Cir. 1985).

135. *Id.* (citing 126 CONG. REC. 29,895 (1980) (statement of Rep. Kastenmeier)).

136. See 106 CONG. REC. E1789 (1999) (daily ed. Aug. 15, 1999) (statement of Hon. Howard Coble).

137. *Id.* at E1790.

138. Compare 35 U.S.C. § 314(b)(2) (2006), with 37 C.F.R. § 1.550(g) (2007).

parties in litigation may face estoppel issues if an *inter partes* request raises the same issues during the course of litigation.<sup>139</sup> Nevertheless, since estoppel only applies after the PTO reaches a final decision and after all appeals are exhausted, estoppel has little practical effect given the long pendency of reexaminations<sup>140</sup> and the potential for third parties to appeal decisions to the Board of Patent Appeals and Interferences (“BPAI”) and the Federal Circuit.<sup>141</sup>

Despite this, reexaminations remained unpopular until the advent of the Central Reexamination Unit (“CRU”) in July of 2005.<sup>142</sup> Requestors previously disfavored reexaminations, in part because they often involved the same Examiner who originally granted the patent, thus imparting a bias on requests that resulted in a greater frequency of allowances and a consequent squandering of valuable prior art.<sup>143</sup> However, the creation of the CRU allayed this worry by assigning requests “to an examiner different from the Examiner(s) who examined the patent application.”<sup>144</sup>

The high success rate of challenging claims by third party requestors relative to litigation further popularized the use of reexaminations. While courts upheld patent validity in approximately two-thirds of infringement trials, the PTO cancelled or amended nearly 76% of all claims challenged by a third party requestor in an *ex parte* reexamination and 87% of claims in an *inter partes* reexamination.<sup>145</sup> Although 61% and 39% of claims represent claim changes in *ex parte* and *inter partes* reexaminations, respectively, this narrowing could theoretically allow potential defendants to circumvent infringement liability.<sup>146</sup> Notably, 48% of patents subject to *inter partes* reexamination have

---

139. See 35 U.S.C. § 315(c) (2006).

140. The average pendency of *inter partes* reexaminations as of Sep. 30, 2011 is 36.2 months. *Inter Partes Reexamination Filing Data*, U.S. PATENT & TRADEMARK OFFICE (Sept. 30, 2011), [http://www.uspto.gov/patents/IP\\_quarterly\\_report\\_September\\_2011.pdf](http://www.uspto.gov/patents/IP_quarterly_report_September_2011.pdf).

141. 35 U.S.C. § 315(b) (2006).

142. See *Inter Partes Reexamination Filing Data*, U.S. PATENT & TRADEMARK OFFICE (Sept. 30, 2011), [http://www.uspto.gov/patents/IP\\_quarterly\\_report\\_September\\_2011.pdf](http://www.uspto.gov/patents/IP_quarterly_report_September_2011.pdf).

143. See *Change in Policy of Examiner Assignment in Ex Parte Reexamination Proceedings and Establishment of Patentability Review Conferences in Ex Parte Reexamination Proceedings*, U.S. PATENT & TRADEMARK OFFICE (Aug. 4, 2000), <http://www.uspto.gov/web/offices/com/sol/og/2000/week35/patreeex.htm>.

144. M.P.E.P §§ 2236(I) and 2636(I)(A) (2010).

145. Kimberly A. Moore, *Judges, Juries, and Patent Cases—An Empirical Peek Inside the Black Box*, 99 MICH. L. REV. 365, 375–76 (2000); *Ex Parte Reexamination Filing Data*, U.S. PATENT & TRADEMARK OFFICE (Sept. 30, 2011), [http://www.uspto.gov/patents/EP\\_quarterly\\_report\\_Sept\\_2011.pdf](http://www.uspto.gov/patents/EP_quarterly_report_Sept_2011.pdf); *Inter Partes Reexamination Filing Data*, U.S. PATENT & TRADEMARK OFFICE (Sept. 30, 2011), [http://www.uspto.gov/patents/IP\\_quarterly\\_report\\_September\\_2011.pdf](http://www.uspto.gov/patents/IP_quarterly_report_September_2011.pdf).

146. *Ex Parte Reexamination Filing Data*, U.S. PATENT & TRADEMARK OFFICE (Sept. 30, 2011), [http://www.uspto.gov/patents/EP\\_quarterly\\_report\\_Sept\\_2011.pdf](http://www.uspto.gov/patents/EP_quarterly_report_Sept_2011.pdf); *Inter Partes*

had all claims canceled, which reflects the involved nature of the proceedings.<sup>147</sup> In light of these statistics, the annual number of *ex parte* filings in 2011 increased approximately 50%, while the annual number of *inter partes* filings increased nearly six fold in 2011 relative to filings in 2005.<sup>148</sup>

The AIA will change the current *inter partes* reexamination structure into the *inter partes* review (“IPR”) as of September 2012, though it will retain many of the same strategic benefits of the reexamination process with a few key changes.<sup>149</sup> In a subtle shift, the threshold for granting an IPR request will change from a “substantial new question of patentability” to a “reasonable likelihood that petitioner would prevail on at least one claim.”<sup>150</sup> Notably, IPRs will go before the Patent Trials and Appeals Board (“PTAB”) in lieu of the central reexamination unit, and third parties may only request IPRs after the nine-month window for filing a post-grant review has lapsed, as discussed in Section III.D.2, *infra*.<sup>151</sup> The board will consist of administrative patent judges who have “competent legal knowledge and scientific ability,” thus retaining the benefit of technical expertise in analyzing prior art.<sup>152</sup> IPRs will be heard by at least three members of the PTAB, and appeals will go directly to the Federal Circuit.<sup>153</sup> Additionally, IPRs will allow parties limited discovery of relevant evidence, such as the deposition of witnesses submitting affidavits or declarations.<sup>154</sup> In light of these additional features, IPRs will bear much higher costs in terms of both filing fees and associated attorney fees relative to their older counterparts.<sup>155</sup> However, since threatened parties know the patent claims asserted against them, IPRs offer a requestor an effective and economical tool to avoid infringement liability relative to litigation.

---

*Reexamination Filing Data*, U.S. PATENT & TRADEMARK OFFICE (Sept. 30, 2011), [http://www.uspto.gov/patents/IP\\_quarterly\\_report\\_September\\_2011.pdf](http://www.uspto.gov/patents/IP_quarterly_report_September_2011.pdf).

147. *Id.*

148. *See id.*

149. *Compare* Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284, 299–305 (2011), *with* 35 U.S.C. §§ 311–318 (2006), *and* 37 C.F.R. §§ 1.902–1.997 (2006).

150. Technically, this standard is more difficult to meet than the existing standard, “however, this shift in standard may be a distinction without a practical difference.” Eldora L. Ellison & Deborah Sterling, *The Impact of the America Invents Act on Patent Challenges at the USPTO*, WORLD INTELL. PROP. REV., Nov.-Dec. 2011, at 36, 37; *see also* Leahy-Smith America Invents Act, 125 Stat. at 300.

151. Leahy-Smith America Invents Act, 125 Stat. at 299–305.

152. *Id.* at 313.

153. *Id.* at 299–305.

154. *Id.* at 302–03.

155. Scott A. McKeown, *How Much Will Post Grant Proceedings at the USPTO Cost?*, PATENTS POST-GRANT (Oct. 13, 2011), <http://www.patentspostgrant.com/lang/en/2011/10/how-much-will-post-grant-proceedings-at-the-uspto-cost>.

Perhaps the most advantageous aspect of the new legislation is that *inter partes* reviews will conclude within one year after institution,<sup>156</sup> with an additional six months for cause, providing an expedited process for invalidation for those seeking a quick invalidity resolution. However, third parties concurrently involved in litigation may give added weight to concerns about estoppel applying to § 282 challenges for arguments made during review proceedings due to the streamlined nature of the IPRs. Any final, adverse decision will more likely be completed before the end of any concurrent litigation, thus having a preclusive effect. This may warrant a more prudent approach towards separating out invalidity arguments. For instance, third parties may still use *ex parte* reexaminations if they are concerned about estoppel or cost issues, with the tradeoff of likely having a reduced success rate relative to PGRs and IPRs.<sup>157</sup>

## 2. Post-grant Reviews: A Strong, but Limited Preemptive Tool

The post-grant review provisions of the AIA provide another tool for potential infringers to combat weak patents, enabling third parties to invalidate patents through the PTO within nine months of a patent's issuance.<sup>158</sup> Importantly, PGRs allow individuals a full arsenal of invalidity arguments under §§ 101–103, and § 112, such as the use of an on sale bar (at issue in *i4i*) or failure to comply with the written description and enablement requirements—all under a preponderance of the evidence standard.<sup>159</sup> This overcomes the deficiencies in using reexaminations for patent invalidation, which rely solely on prior art patents or written publications and can take years to reach a final conclusion.<sup>160</sup> Importantly, as the Patent Office notes, “by using the Office’s expertise, these challenges could be adjudicated for less money and in less time than by civil suit. This will enhance the patent system as a whole by strengthening those patents that survive the review and eliminating those patents which contain unpatentable subject matter.”<sup>161</sup> The PTAB, discussed in Section III.D.1, *supra*, conducts the PGR proceedings.<sup>162</sup> The board institutes a PGR if the evidence presented would demonstrate

---

156. Leahy-Smith America Invents Act, 125 Stat. at 302.

157. See *supra* Section III.D.1; *infra* Section III.D.2.

158. Leahy-Smith America Invents Act, 125 Stat. at 306.

159. *Id.*

160. See *Ex Parte Reexamination Filing Data*, U.S. PATENT & TRADEMARK OFFICE (Sept. 30, 2011), [http://www.uspto.gov/patents/EP\\_quarterly\\_report\\_Sept\\_2011.pdf](http://www.uspto.gov/patents/EP_quarterly_report_Sept_2011.pdf); *Inter Partes Reexamination Filing Data*, U.S. PATENT & TRADEMARK OFFICE (Sept. 30, 2011), [http://www.uspto.gov/patents/IP\\_quarterly\\_report\\_September\\_2011.pdf](http://www.uspto.gov/patents/IP_quarterly_report_September_2011.pdf).

161. *Post-Grant Review of Patent Claims*, U.S. PATENT & TRADEMARK OFFICE (Sept. 20, 2007), <http://www.uspto.gov/web/offices/com/strat21/action/sr2.htm>.

162. Leahy-Smith America Invents Act, 125 Stat. at 309.

that it is more likely than not that at least one of the challenged claims is unpatentable or if the petition raises a novel or unsettled legal question.<sup>163</sup> Designed to reach a conclusion within a year to a year and a half, which is shorter than typical civil trial and reexamination time frames, the proceedings include streamlined hearings, the possibility for live cross-examination, and the opportunity for limited discovery of evidence related to factual assertions advanced by the parties.<sup>164</sup> These provisions are similar to the provisions for IPRs.<sup>165</sup>

However, the PGR's nine-month window certainly curtails its effectiveness, and was likely enacted to balance the values of maintaining secure property rights for patent holders with the need for reducing the occurrence of weak patents within the patent system.<sup>166</sup> This narrow window places the pressure on would-be defendants to maintain a high level of vigilance regarding newly issued patents—a considerable task that would require a nearly constant infringement and invalidation analysis for all relevant issued patents. The high transaction costs of this approach will likely limit PGRs to third parties with the foresight to identify patents that carry the highest risk of future litigation, which is a narrow subset of issued patents within industries that bear transparent litigation risks. For instance, licensees notified of newly issued patents that affect their current royalty agreements may find the PGR process useful as a defensive measure against aggressive licensors. However, the complexity and ambiguity of many issued claims, most notably in the software industry, would ultimately exacerbate this process, since the scope of claims often remains opaque until they are asserted.<sup>167</sup> Additionally, since the statutory defenses of § 282 define the grounds for PGRs, obviousness-type double patenting rejections<sup>168</sup> are excluded from this process, thereby limiting their use for invalidity challenges in reexaminations and IPRs.

---

163. *Id.* at 306.

164. *Id.* at 308–09.

165. *Id.* at 302–03.

166. *Id.* at 306.

167. See JAMES BESSEN & MICHAEL J. MEURER, PATENT FAILURE: HOW JUDGES, BUREAUCRATS, AND LAWYERS PUT INNOVATORS AT RISK 12–13 (2008).

168. Double patenting rejections concern patent holders who seek to extend the term of patent coverage by obtaining multiple patents on obvious variations of a single patent. M.P.E.P. § 804 (2007). This limitation on the use of this defense has notable benefits for the biotechnology and pharmaceutical industries, which more readily face these issues when attaining multiple patents for singular, blockbuster drugs. See Scott A. McKeown, *Post Grant Review Grounds*, PATENTS POST-GRANT (Apr. 1, 2011), <http://www.patentspostgrant.com/lang/en/2011/04/additional-grounds-of-post-grant-review-expanded-in-house-bill>.



Significantly adding to the strategic decision of pursuing PGRs are the monetary costs of the process. Certainly, PGRs, as well as IPRs, will prove much less costly than litigation considering that the average cost of patent litigation that reaches the Federal Circuit is over \$3 million.<sup>169</sup> However, in light of the expedited timeframe of PGRs, the assignment of three APJs to every filing, and the added discovery and the quasi-litigation features of the process, costs will likely soar relative to pre-AIA reexamination proceedings. The American Intellectual Property Law Association estimated that the cost of an average *inter partes* patent reexamination is \$278,000, including attorney fees and an \$8800 government filing fee.<sup>170</sup> Heightened filing fees for PGRs and increased attorney fees due to the new features of the process could easily double this cost for unsettled, fully adjudicated reviews. Costing more than an estimated half a million dollars, PGRs will likely have limited use as a preemptive invalidity tool to avoid infringement liability.<sup>171</sup> From a cost-benefit standpoint, only the most egregious and straightforward cases of infringement would merit investing such substantial costs to avoid liability. Clients who do not feel threatened would likely find it more economical to wait until claims are asserted and then seek a stay of litigation pending review. However, the narrow window for a PGR would make this scenario unlikely. Additionally, individuals employing PGRs face significant estoppel dangers given the expanded invalidity grounds and expedited nature of the process.<sup>172</sup> Since third parties must file reviews within nine months after issuance, the issues adjudicated during PGRs will likely exhaust them for use in any subsequent litigation. Thus, parties will employ extreme caution when using strongest prior art for fear of squandering it for later use.

Certainly, PGRs will not significantly replace the increasing popularity of reexaminations, which, as a litigation defense, offer the distinct advantage of knowing which patents litigants assert against a party. Nonetheless, PGRs will likely provide a useful addition to the repertoire of patent invalidity strategies to mitigate the presence of “bad” patents, while bolstering the validity and consequent strength of legitimate patents.

---

169. AM. INTELLECTUAL PROP. LAW ASS'N, REPORT OF THE ECONOMIC SURVEY 29 (2009).

170. *Id.* at 33.

171. Scott A. McKeown, *How Much Will Post Grant Proceedings at the USPTO Cost?*, PATENTS POST-GRANT (Oct. 13, 2011), <http://www.patentspostgrant.com/lang/en/2011/10/how-much-will-post-grant-proceedings-at-the-uspto-cost>.

172. *See Leahy-Smith America Invents Act*, Pub. L. No. 112-29, 125 Stat. 284, 306–08 (2011).

#### IV. CONCLUSION

The Supreme Court's holding, in the wake of the America Invents Act, will beneficially alter the calculus of invalidity defense strategies. Reduced evidentiary standards, greater technical expertise, and more streamlined reviews at the PTO will encourage defendants to seek invalidation outside of litigation. Nonetheless, the practical reality of the *i4i* ruling will likely have a diminished impact on invalidity challenges during trial in light of the subtle distinction of evidentiary standards in the eyes of jurors, the rarity of evidentiary standard-determinative decisions, and the ability to give jury instructions emphasizing the weight of new art. For combatting weak patents, Congress and the courts should focus on crafting policies that necessarily impact decision-making at the PTO-level, rather than focusing on the procedural aspects underlying court invalidity decisions. The America Invents Acts represents a step in the right direction.

