

# LAY JURORS: THE TRUE CASUALTIES OF THE APPLE V. SAMSUNG SMARTPHONE PATENT WARS?

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## I. INTRODUCTION

In August of 2010, Apple, Inc. (Apple) fired the first shots in what has become known as the “smartphone patent wars” by warning Samsung Electronics Co. (Samsung) that some of Samsung’s phones and tablets were infringing on Apple’s patents.<sup>1</sup> After initial attempts to reach a licensing deal failed,<sup>2</sup> Apple filed the first lawsuit in April of 2011 in the U.S. District Court for the Northern District of California, in which Apple claimed that Samsung had infringed on a number of Apple’s patents.<sup>3</sup> While litigation quickly spread to eight other countries,<sup>4</sup> the decision that sparked the most controversy was a jury decision on August 24, 2012 in that same District Court, which awarded Apple \$1.05 billion in damages.<sup>5</sup> When compared to other major jurisdictions in Europe and Asia, the United States’ award of \$1.05 billion in damages highlights an increasingly popular contention that juries composed of laypeople have no place in patent infringement lawsuits because of the technical complexities of the underlying patents.<sup>6</sup>

While the United States is alone in its use of juries to determine patent

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1. See Geoff Duncan, *Why Are Apple and Samsung Throwing Down? A Timeline of the Biggest Fight in Tech*, DIGITAL TRENDS (Apr. 4, 2014), <http://www.digitaltrends.com/mobile/apple-vs-samsung-patent-war-timeline/> (outlining the four year “war” between Apple and Samsung).

2. See *id.* (discussing the failed meeting between Apple and Samsung).

3. See Nilay Patel, *Apple Sues Samsung: A Complete Lawsuit Analysis*, THE VERGE (Apr. 19, 2011), <http://www.theverge.com/2011/04/19/apple-sues-samsung-analysis> (analyzing Apple’s lawsuit against Samsung).

4. See Chloe Albanesi, *Every Place Samsung and Apple are Suing Each OTHER*, PC (Sept. 14, 2011), <http://www.pcmag.com/article2/0,2817,2392920,00.asp> (outlining the countries that the Apple-Samsung patent infringement battle has spread to).

5. See Josh Lowensohn, *Jury Awards Apple More Than \$1B, Finds Samsung Infringed*, CNET (Aug. 24, 2012, 6:35 PM), <http://www.cnet.com/news/jury-awards-apple-more-than-1b-finds-samsung-infringed/> (reviewing the jury’s verdict in *Apple, Inc. v. Samsung Electronics Co.*, 877 F. Supp. 2d 838, 918 (N.D. Cal. 2012)).

6. See Sanjeev Bajwa, *Apple v. Samsung: Is It Time to Change Our Patent Trial System?*, 27 PAC. MCGEORGE GLOBAL BUS. & DEV. L.J. 77, 78 (2014) (questioning why complex patent infringement cases are being decided by a jury of laypeople and suggesting possible ways to address this problem).

infringement outcomes,<sup>7</sup> entirely abolishing the use of juries in patent infringement suits would be met by insurmountable constitutional walls.<sup>8</sup> One possible way the United States could overcome any constitutional obstacles posed by abolishing lay juries is by creating pools of technically competent and unbiased experts from which the juries in patent litigations may be selected. Creating juries composed of technically competent experts would produce more consistent and predictable results in patent litigation while avoiding major constitutional problems that would result from abolishing the jury altogether.<sup>9</sup>

However, creating juries from experts in the field would likely be met by substantial implementation hurdles, such as providing adequate incentives. Due to the tremendous hourly costs of hiring an expert,<sup>10</sup> providing proper monetary incentives would be prohibitively expensive. To avoid many of these implementation obstacles while still adequately addressing the deficiencies associated with a lay jury, the United States could use United States Patent and Trademark Office (USPTO) patent examiners as jury members in patent infringement cases.<sup>11</sup> While this proposed solution would undoubtedly encounter barriers resulting from inconsistent constitutional rulings,<sup>12</sup> it is the most feasible of the proposed solutions.

Part I discussed the brief overview of the initial dispute between Apple and Samsung. It also poses the question: why are juries in highly technical patent infringement cases composed of laymen instead of experts? Part II highlights the notable results of the Apple-Samsung litigation in different jurisdictions and summarizes the relevant patent laws and court system structures of these jurisdictions in order to properly compare and analyze the United States' award of \$1.05 billion in damages. Part III examines whether or not the patent trial system in the United States is flawed and the role that juries play in compromising the integrity of the patent trial system with a specific focus on the jury in *Apple, Inc. v. Samsung Electronics Co., Ltd.*, 678 F.3d 1314 (2012). Part IV discusses proposed

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7. See *id.* at 78 (explaining the outcomes of the Apple-Samsung litigation in other countries).

8. See U.S. CONST. amend. VII (providing the right to a trial by jury in all civil cases).

9. See generally Bajwa, *supra* note 6, at 104–05 (discussing the constitutional hurdles of eliminating jury trials in complex civil litigation).

10. See John G. Webster, *Expert Witness and Litigation Consulting*, in CAREER DEV. IN BIOENGINEERING AND BIOTECHNOLOGY, 258, 261 (Guruprasad Madhavan et al. eds., 2008), [https://www.engr.wisc.edu/bme/faculty/webster\\_john/ExpertwitnessconsultingWebster.pdf](https://www.engr.wisc.edu/bme/faculty/webster_john/ExpertwitnessconsultingWebster.pdf) (discussing the calculation of expert witness fees); see also *Expert Witness Fee Study*, SEAK, INC. (2004), <http://www.seak.com/expert-witness-fee-study/> (reviewing a study conducted to determine expert witness fees at different stages of a trial and for different types of experts).

11. See Bajwa, *supra* note 6, at 97–103 (describing how foreign nations handle patent litigation and the practicality of implementing parts of those nations systems in the United States).

12. See generally Michael A. Fisher, *Going for the Blue Ribbon: The Legality of Expert Juries in Patent Litigation*, 2 Colum. Sci. & Tech. L. Rev. 1, 13–18 (2001) (explaining how allowing special juries in the United States may conflict with certain provisions in the Constitution).

solutions to the problems raised by the United States' use of lay juries and will conclude by arguing for the use of USPTO patent examiners as jury members in patent infringement suits.

## II. BACKGROUND

Immediately after Apple filed its initial complaint in April of 2011, Samsung countersued over 3G technology patents and took the battle international by filing lawsuits against Apple in Japan, Germany, and South Korea.<sup>13</sup> Within months, the litigation expanded to the French, Italian, Dutch, Australian, and British courts.<sup>14</sup> Each country has differently structured court systems and patent laws, causing each jurisdiction to reach different results.<sup>15</sup> First, this section will outline the key aspects of the litigation history in the United States; then, it will highlight notable results in other jurisdictions. This section will also briefly discuss the relevant patent laws and court system structures in different jurisdictions that may have influenced the outcomes.

### A. Litigation History

#### 1. The United States

Litigation between the two smartphone super-giants began in April of 2011 when Apple filed a complaint in the U.S. District Court for the Northern District of California alleging that Samsung was infringing on Apple's trade dress, trademark, and patents.<sup>16</sup> Samsung responded with a countersuit, alleging that Apple was infringing on its patents.<sup>17</sup> Samsung allegedly infringed on eight utility patents and seven design patents owned by Apple.<sup>18</sup> At the request of Chief Judge Koh, Apple amended its allegations to include just three utility patents and four design patents.<sup>19</sup>

Apple's design patents—known as the “industrial design” patents—concern the ornamental appearance of the front face of Apple's smartphones and the overall appearance of Apple's tablet.<sup>20</sup> Additionally, one of Apple's design patents covers the design of the digital graphic user interface on Apple's smartphone and tablet

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13. See Duncan, *supra* note 1 (laying out a timeline of the Apple-Samsung litigation).

14. See Albanesius, *supra* note 4 (outlining the countries to which the Apple-Samsung patent infringement battle has spread).

15. See Bajwa, *supra* note 6, at 94–102 (describing how different countries' patent litigation systems and patent laws affected each country's results of the Apple-Samsung litigation).

16. See Patel, *supra* note 3 (detailing each of the claims Apple brought in its lawsuit against Samsung in the U.S. District Court for the Northern District of California).

17. See Duncan, *supra* note 1 (laying out a timeline of the Apple-Samsung litigation).

18. See Christopher v. Carani, *Apple v. Samsung: Design Patents Take Center Stage*, 5 LANDSLIDE 1, 2 (2013) (discussing the relevant patents that Apple claimed Samsung infringed upon).

19. See *id.* (describing the procedural history for the Apple v. Samsung lawsuit in the U.S. District Court for the Northern District of California).

20. See *id.* at 3 (examining Apple's asserted design patents).

products.<sup>21</sup> The utility patents at issue, the '163, '381, and '915 patents, cover the double tap to zoom, the "bounce-back" feature when scrolling beyond the edge of a page, and the ability to distinguish between single-touch and multi-touch gestures (pinch to zoom, for example), respectively.<sup>22</sup>

While numerous pretrial motions regarding discovery and evidence were made by both parties, there is one of notable importance. In July of 2011, Apple motioned for a preliminary injunction seeking to enjoin Samsung from "making, using, offering to sell, or selling within the United States, or importing into the United States" a number of Samsung smartphones and tablets because they infringed upon Apple's design patents and the '381 utility patent.<sup>23</sup> The U.S. District Court for the Northern District of California denied Apple's motion with respect to each of the accused devices and all four asserted patents.<sup>24</sup> The court denied relief because Apple failed to show both a likelihood of success on the merits and that Apple would likely suffer irreparable harm from Samsung's continuing infringement while the case was pending.<sup>25</sup>

The U.S. Court of Appeals for the Federal Circuit (CAFC) affirmed the denial of a preliminary injunction for all but one design patent.<sup>26</sup> The case was then remanded back to the district court to rule on the preliminary injunction with respect to the final design patent.<sup>27</sup> In July of 2012, Judge Koh granted Apple's motion for a preliminary injunction and enjoined Samsung from making, using, offering to sell, selling within the United States, or importing into the United States Samsung's Galaxy Nexus and any product that is no more than colorably different from the specified product.<sup>28</sup> Apple was ordered to post a \$95.6 million bond in the event that Samsung had been wrongly enjoined.<sup>29</sup> It was only after the trial, when Samsung's Nexus was found not to infringe Apple's patents, that Samsung was able to move to vacate the injunction.<sup>30</sup>

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21. *See id.* at 3, 6 (explaining Apple's D'305 graphic design patent).

22. *See* Kevin Smith, *These Are the 6 Apple Patents Samsung Violated*, BUSINESS INSIDER (Aug. 28, 2012), <http://www.businessinsider.com/apple-versus-samsung-2012-8?op=1> (providing a detailed description of the six Apple patents the jury concluded that Samsung violated).

23. *See* Apple, Inc. v. Samsung Elecs. Co., No. 11-CV-01846-LHK, 2011 WL 7036077, at \*1 (N.D. Cal. Dec. 2, 2011) (denying Apple's motion for a preliminary injunction against Samsung).

24. *See id.* at \*40 (denying Apple's motion for a preliminary injunction against Samsung).

25. *See id.* (explaining the Court's reasoning for denying Apple's motion for preliminary injunction against Samsung).

26. *See* Apple, Inc. v. Samsung Elecs. Co., 678 F.3d 1314, 1333 (Fed. Cir. 2012) (affirming in part and reversing in part the U.S. District Court for the Northern District of California's decision).

27. *See id.* (remanding part of the case back to the U.S. District Court for the Northern District of California to review Apple's motion for a preliminary injunction on the D'889 patent).

28. *See* Apple, Inc. v. Samsung Elecs. Co., 877 F. Supp. 2d 838, 918 (N.D. Cal. 2012) (granting Apple's preliminary injunction against Samsung for its U.S. Patent 8,086,604).

29. *See id.* (requiring Apple to post a bond in the amount of \$95,637,141.60 as a condition of the preliminary injunction to act as a safeguard in case Samsung was wrongfully enjoined).

30. *See* Diane Bartz & Dan Levine, *U.S. Court Clears Samsung Phone, Hands Apple*

On August 24, 2012, a jury in the U.S. District Court for the Northern District of California decided that some of Samsung's products infringed upon a number of Apple's patents, and Samsung was ordered to pay over \$1 billion in damages.<sup>31</sup> However, Judge Koh later vacated \$450 million and ordered a new trial for damages corresponding to fourteen Samsung products.<sup>32</sup> The adjustment was necessary because the jury set only one damages figure per product, but each product was found to have infringed on half a dozen different intellectual property rights.<sup>33</sup> This resulted in confusion as to what portion of the per-product damages figure was attributable to a specific intellectual property right infringement.<sup>34</sup> At the retrial for damages on November 21, 2013, in which Apple sought \$380 million, a jury awarded Apple roughly \$290 million<sup>35</sup> in damages for Samsung's infringement of three of Apple's utility patents and two of its design patents.<sup>36</sup> While both Apple and Samsung have filed subsequent suits in the United States, the scope of this comment is focused on the result of the damages determined by the jury in the original decision on August 24, 2012.

## 2. Notable Outcomes in Other Areas of the World

### a. Europe and Australia

Immediately after Apple filed its initial complaint, Samsung retaliated by filing lawsuits in a number of countries in Europe and Asia.<sup>37</sup> Germany was the first European country in which Samsung filed suit, claiming that Apple infringed on a number of its 3G technology patents.<sup>38</sup> Predictably, Apple countersued over its own European patents.<sup>39</sup> In August of 2011, the Landgericht court in Dusseldorf

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*Setback*, REUTERS (Oct. 11, 2012), <http://www.reuters.com/article/2012/10/11/us-apple-samsung-patent-idUSBRE89A11C20121011> (discussing the U.S. Court of Appeals for the Federal Circuit's decision to vacate Apple's preliminary injunction against Samsung for its U.S. Patent 8,086,604).

31. See Lowensohn, *supra* note 5 (discussing the outcome of the Apple v. Samsung trial in the U.S. District Court for the Northern District of California in August 2012).

32. See Florian Mueller, *Judge Strikes \$450 Million from \$1 Billion Damages Award in Apple v. Samsung: Second Trial Needed*, FOSS PATENTS (Mar. 1, 2013, 9:25 PM), <http://www.fosspatents.com/2013/03/judge-strikes-450-million-from-1.html> (explaining why damages were vacated and a new trial ordered to re-determine damages related to fourteen of Samsung's products which were alleged to infringe on Apple's patents).

33. *Id.*

34. *Id.*

35. At retrial, Apple was awarded \$290 million of the \$450 million that was vacated. See *Apple, Inc. v. Samsung Elecs. Co.*, No. 11-CV-01846-LHK, 2014 U.S. Dist. LEXIS 17204, at \*42 (N.D. Cal. Feb. 7, 2014) (denying both Apple's and Samsung's motions for judgment as a matter of law).

36. See *id.* (discussing the background of the case).

37. See Duncan, *supra* note 1 (outlining the litigation timeline of events).

38. See *id.* (detailing the battle between Apple and Samsung in Germany).

39. See Chris Foresman, *Apple Stops Samsung, Wins EU-wide Injunction against Galaxy Tab 10.1*, ARS TECHNICA (Aug. 9, 2011), <http://arstechnica.com/apple/2011/08/samsung-facing-eu-wide-injunction-against-galaxy-tab-101/> (discussing the preliminary injunction Apple was

Germany granted Apple a preliminary injunction across the European Union (E.U.) against Samsung's Galaxy Tab 10.1 for allegedly violating a European Community design registration for the iPad.<sup>40</sup> The injunction was affirmed by a higher court in January of 2012, but was restricted to Germany.<sup>41</sup> Both parties filed other lawsuits in other regions of Germany seeking similar injunctions, but by the end of 2012, each party's patent infringement claims had either been rejected or stayed until Germany's Federal Patent Court could rule on patent validity.<sup>42</sup> Finally, on April 4, 2013, Germany's Federal Patent Court invalidated Apple's "slide to unlock" patent on the grounds that it failed to meet the technicality requirement under European patent law.<sup>43</sup>

Apple also sought to obtain a preliminary injunction in Australia against Samsung's Australian version of the Galaxy Tab 10.1, claiming that the tablet "slavishly" copied various aspects of the iPad's design.<sup>44</sup> An Australian Federal Court Justice determined that "Apple had a prima facie case that Samsung had infringed two of its patents relating to touchscreens and the gestures that control them."<sup>45</sup> Samsung agreed to suspend the sale and distribution of its tablet in the Australian market until the dispute was resolved.<sup>46</sup> However, on appeal, the Federal Court of Australia unanimously overturned the ban on the Samsung device.<sup>47</sup>

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awarded against Samsung).

40. *See id.* (discussing the Landgericht's decision to impose a preliminary injunction against Samsung's Galaxy Tab 10.1). A European Community design registration is similar to a typical design patent in the United States. Designs may be eligible for registration if they meet three requirements: (1) be new; (2) have "individual character"; and (3) not be composed of features dictated solely by function. Council Regulation 6/2002, art.4-8, 2001 O.J. (L 3) 1 EC.

41. *See* Florian Mueller, *German Appeals Court Upholds Galaxy Tab 10.1 Injunction—But on Different Legal Basis than Apple's Design Right*, FOSS PATENTS (Jan. 31, 2012, 10:14 AM), <http://www.fosspatents.com/2012/01/german-appeals-court-upholds-galaxy-tab.html> (examining the Düsseldorf Higher Regional Court's decision to uphold the Landgericht's preliminary injunction against the Samsung Galaxy Tab 10.1).

42. *See* Florian Mueller, *German Court Finds Apple to Infringe Samsung 3G Patent but Stays Lawsuit over Validity Concerns*, FOSS PATENTS (Jan. 25, 2013, 10:40 AM), <http://www.fosspatents.com/2013/01/german-court-finds-apple-to-infringe.html> (discussing the *Apple v. Samsung* German lawsuits for injunctive relief).

43. *See* Florian Mueller, *Apple's Slide-to-Unlock Patent Invalidated in Germany (Decision is Appealable)*, FOSS PATENTS (Apr. 4, 2013, 6:00 PM), <http://www.fosspatents.com/2013/04/apples-slide-to-unlock-patent.html> (explaining Germany's decision to invalidate Apple's slide-to-unlock patent).

44. *See* Trevor Mogg, *Apple Wins Temporary Ban on Sales of Samsung Tablet in Australia*, DIGITAL TRENDS (Oct. 12, 2011), <http://www.digitaltrends.com/mobile/apple-wins-temporary-ban-on-sales-of-samsung-tablet-in-australia/> (discussing the decision of an Australian court to grant an order preventing Samsung from selling one of its tablets in the Australian market).

45. *Id.*

46. *Id.*

47. *See* Trevor Mogg, *Samsung Wins Galaxy Tablet Appeal, Returns to Australian Stores Friday*, DIGITAL TRENDS (Nov. 29, 2011), <http://www.digitaltrends.com/mobile/samsung-wins-galaxy-tablet-appeal-returns-to-australian-stores-friday/> (explaining the Australian Appeals Court's decision to overturn the Federal Court's preliminary injunction against Samsung's Galaxy Tablet 10.1).

In the United Kingdom, Apple sought an injunction similar to the one granted by the German court.<sup>48</sup> A judge in the High Court of Justice's Chancery Division ruled that Samsung's Galaxy Tab did not infringe upon the design of Apple's iPad because the Samsung devices were not well-designed enough to be confused with Apple's products.<sup>49</sup> The Court of Appeal in London affirmed the ruling that Samsung's devices did not infringe upon a European design right for Apple's iPad.<sup>50</sup>

### *b. Asia*

As part of Samsung's initial retaliation in April of 2011, Samsung filed a complaint in the Tokyo District Court of Japan.<sup>51</sup> Similar to the complaint filed in Germany, Samsung alleged that Apple infringed its patents relating to mobile-communications technologies.<sup>52</sup> Predictably, Apple countersued seeking 100 million yen, or about \$1.2 million in damages,<sup>53</sup> but this time over a patent that involved the synchronization of media content between a computer and a mobile device.<sup>54</sup> Samsung scored a complete defense victory and was awarded various costs, most notably the stamp fee.<sup>55</sup> The Intellectual Property High Court (IP High Court) upheld this decision, and Apple did not appeal to the Supreme Court.<sup>56</sup> The

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48. See John McKeown, *Industrial Designs in the War Between Apple and Samsung Electronics*, LEXOLOGY (Oct. 15, 2012), <http://www.lexology.com/library/detail.aspx?g=a552d20f-4dbf-4eab-82f1-c19c1a8d278a> (discussing Apple's motion for preliminary injunction against Samsung in the United Kingdom).

49. See Nathan Ingraham, *UK Judge Says Galaxy Tab Does not Infringe on the iPad, Design 'Not as Cool'*, THE VERGE (July 9, 2012), <http://www.theverge.com/2012/7/9/3146434/uk-galaxy-tab-ipad-infringement-ruling> (elaborating on why the Court does not believe Samsung's products are infringing on Apple's patents).

50. See *UK Court Upholds Apple v Samsung Design Ruling*, WORLD INTELLECTUAL PROP. REVIEW (Jan. 12, 2012), <http://www.worldipreview.com/news/uk-court-upholds-apple-v-samsung-design-ruling> (discussing the Court of Appeal in London's decision to uphold the High Court's ruling that Samsung's tablets do not infringe on Apple's European design right for its iPad).

51. See Jun Yang, *Samsung Electronics Counter Sues Apple as Patent Row Deepens*, BLOOMBERG (Apr. 22, 2011), <http://www.bloomberg.com/news/2011-04-22/samsung-sues-apple-on-patent-infringement-claims-as-legal-dispute-deepens.html> (discussing international claims filed by Samsung in response to Apple's initial filing in the United States).

52. See *id.* (examining the complaints Samsung filed against Apple in other countries).

53. See Peter Leung, *Apple v Samsung: The Asia Scorecard*, MANAGING INTELLECTUAL PROP. (Sept. 13, 2012), <http://www.managingip.com/Article/3089129/Apple-v-Samsung-the-Asia-scorecard.html> (discussing the Apple v. Samsung lawsuits in Korea and Japan).

54. See *id.* (describing the patents allegedly infringed in Japan).

55. See *id.* (discussing the outcome of the Apple v. Samsung case regarding Apple's synchronization patent in the Tokyo District Court). "The stamp fee is a tax to the court based on the amount of damages requested by the plaintiff." *Id.*

56. See Takanori Abe & Keishi Yoshikawa, *Japan: Apple v Samsung Cases So Far*, MANAGING INTELLECTUAL PROP. (Oct. 23, 2013), <http://www.managingip.com/Article/3268119/Japan-Apple-v-Samsung-cases-so-far.html> (reviewing the outcome of three cases between Apple and Samsung in Japan).

judgment then became final and binding.<sup>57</sup>

Again in response to Apple's initial complaint in April of 2011, Samsung filed claims against Apple in the Seoul Central District Court of South Korea, claiming infringement on its telecommunication standards patents.<sup>58</sup> Only a few months later, in June, Apple also filed a suit in the Seoul Central District Court alleging infringement on their trade dress, design, and utility patents.<sup>59</sup> The Seoul Central District Court handed down its decision in both lawsuits on August 24, 2012—the same day that the jury in the U.S. District Court for the Northern District of California returned a verdict in Apple's favor for \$1.05 billion in damages.<sup>60</sup>

The South Korean court concluded that Apple infringed on two of Samsung's five disputed patents and that Samsung had infringed on Apple's "bounce-back" patent.<sup>61</sup> The decision that Apple infringed on Samsung's patents forced Apple to remove the iPhone 3GS, iPhone 4, iPad 1 and iPad2 from store shelves in South Korea.<sup>62</sup> Both Apple and Samsung were ordered to pay limited damages, and Samsung was enjoined from selling infringing products, including the Galaxy S2, in South Korea.<sup>63</sup> Apple was awarded a mere \$22,000 in damages.<sup>64</sup>

## ***B. Patent Laws and Court System Structure***

### **1. United States**

The United States Constitution states that the ultimate goal of patent law is "[t]o promote the Progress of Science and useful Arts."<sup>65</sup> To achieve this ultimate goal, an inventor is granted a right to exclude others from making, using, offering for sale, or selling the invention in the United States in exchange for disclosing the entire invention to the public.<sup>66</sup> In 1982, the CAFC was established and given exclusive appellate jurisdiction for all appeals from district court patent infringement cases.<sup>67</sup> Because one-third of the cases heard by the CAFC are patent

57. *Id.*

58. See Taesup Rim, Donghyeon Kim & Gangrae Cho, *An Overview of the World-Wide Samsung Electronics v. Apple Inc. Cases*, 14 KOR. U. L. REV. 3, 5 (2013) (laying out a timeline of the two lawsuits filed between Apple and Samsung in Korea).

59. *Id.*

60. See *id.* (providing a timeline of the two lawsuits filed between Apple and Samsung in Korea); accord Lowensohn, *supra* note 5 (discussing the jury award of over \$1 billion in the Apple v. Samsung trial in the U.S. District Court for the Northern District of California in August 2012).

61. Rim, *supra* note 58, at 5.

62. *Id.*

63. *Id.*

64. *Id.*

65. U.S. CONST. art. I, § 8, cl. 8.

66. *General Information Concerning Patents*, THE UNITED STATES PATENT AND TRADEMARK OFFICE (Oct. 2014), <http://www.uspto.gov/patents-getting-started/general-information-concerning-patents>.

67. Philippe Signore, *On the Role of Juries in Patent Litigation*, 83 J. PAT. & TRADEMARK



cases,<sup>68</sup> it is not uncommon for the CAFC judges to have a scientific or technical background.<sup>69</sup>

Patent infringement is a question of fact that is resolved by the jury.<sup>70</sup> Consequently, juries may be faced with the daunting task of determining infringement in cases involving incredibly complex technologies and underlying subject matter.<sup>71</sup> The two main types of patents that can be granted by the USPTO are utility patents and design patents.<sup>72</sup> This section will discuss the standard for infringement of the two different types of patents and how these standards impact the role that the jury plays in making the factual finding of infringement.

### *a. Design patents*

Design patents protect the ornamental design of an article of manufacture.<sup>73</sup> The test for design patent infringement—known as the “ordinary observer test”—was first established by the U.S. Supreme Court in 1871 in *Gorham Co. v. White*.<sup>74</sup> In *Gorham*, the Court held that a design patent is infringed upon if “in the eye of an ordinary observer, giving such attention as a purchaser usually gives, two designs are substantially the same.”<sup>75</sup> There are two significant takeaways from the test established by the *Gorham* Court.<sup>76</sup> First, the Court rejected the notion that design patent infringement should be decided through the eyes of an expert, or even from the standpoint of someone of ordinary skill in the applicable field.<sup>77</sup> Second, the Court established that design patent infringement does not require exactness.<sup>78</sup> Instead, a product will be found to infringe if it is “substantially” the same in appearance.<sup>79</sup>

In 2008, the *en banc* CAFC affirmed the ordinary observer test in *Egyptian Goddess, Inc. v. Swisa, Inc.*, 543 F.3d 665, 678 (Fed. Cir. 2008). In *Egyptian Goddess*, the court held that the ordinary observer test is the sole test for

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OFF. SOC’Y 791, 798–799 (2001) [hereinafter Signore I].

68. See *Court Jurisdiction*, U.S. COURT OF APPEALS FOR THE FED. CIRCUIT, <http://www.cafc.uscourts.gov/the-court/court-jurisdiction> (last visited Sept. 28, 2015) (establishing that the court’s jurisdiction consists of 31% intellectual property cases, almost all of which involve patents).

69. See *Judges*, U.S. COURT OF APPEALS FOR THE FED. CIRCUIT, <http://www.cafc.uscourts.gov/judges> (last visited Nov. 24, 2014) (providing a database of current as well as past judges of the Court of Appeals for the Federal Circuit and their backgrounds and histories).

70. *SRI Int’l v. Matsushita Elec. Corp.*, 775 F.2d 1107, 1125 (Fed. Cir. 1985).

71. Signore I, *supra* note 67, at 805.

72. See generally *General Information Concerning Patents*, *supra* note 66.

73. *Id.*

74. 81 U.S. 511, 528 (1871).

75. *Id.* at 528 (emphasis added).

76. *Id.*

77. See Carani, *supra* note 18 (discussing the origin and significance of the test used to determine design patent infringement).

78. 81 U.S. at 528.

79. *Id.*

determining whether a design patent has been infringed.<sup>80</sup> The court also added the additional requirement that the ordinary observer test must be conducted in light of the prior art.<sup>81</sup> This test will have important implications on this comment's argument to alter the jury system in patent infringement cases and will later be discussed in depth. While an ordinary layperson jury can adequately determine issues of design patent validity and infringement, the layperson jury's ability to decide issues of validity and infringement of utility patents is significantly limited.

### ***b. Utility patents***

Determining utility patent infringement is a much more complicated matter than determining design patent infringement. Although the ultimate question of infringement is a question of fact that must be determined by a jury,<sup>82</sup> a court must undertake the task of claim construction, which is a question of law.<sup>83</sup> Claim construction is crucial because it defines the scope of legal protection afforded to a patent based on the language of the patent's claims.<sup>84</sup> In determining the meaning of terms within a claim and the applicable disclosure, a court must view the language from the eyes of a person of ordinary skill in the pertinent field.<sup>85</sup> The issue of claim construction and interpretation is a matter of law because the determination must be made through the eyes of someone of ordinary skill in the pertinent art, and it would be unrealistic to expect a jury of laypeople to look at something with a background of knowledge that they do not possess.<sup>86</sup> Currently, a court will hold a *Markman* hearing before trial begins to determine the issue of claim construction.<sup>87</sup> Once the issue of claim construction is determined, the trial becomes slightly more predictable as the scope of the patent has been judicially defined.<sup>88</sup>

After the court determines the meaning of the claim terms, the jury's job is to determine if the accused device infringes upon the patented claims.<sup>89</sup> There are two different types of infringement for utility patents: literal infringement and infringement by equivalents.<sup>90</sup> To find literal infringement, the jury must find that the accused infringer's device, method, or product meets every element or limitation set forth in the patented claims.<sup>91</sup> Infringement by equivalents is determined by a three-part test.<sup>92</sup> The jury must determine whether or not the

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80. *Egyptian Goddess*, 543 F.3d at 678.

81. *Id.*

82. *SRI Int'l v. Matsushita Elec. Corp.*, 775 F.2d 1107, 1125 (Fed. Cir. 1985).

83. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 372 (1996).

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

85. *Id.* at 1313.

86. *See Signore I*, *supra* note 67, at 828–829.

87. *Id.* at 800–801.

88. *Id.*

89. *Id.* at 805–806.

90. *Id.*

91. *Id.*

92. *See Signore I*, *supra* note 67.

accused device, method or product includes something that: (1) performs substantially the same function as the claimed element, (2) in substantially the same way, and (3) to give substantially the same result.<sup>93</sup> A substantial problem that may arise in determining infringement through the doctrine of equivalence is that the jury may be unable to comprehend the subject matter underlying the patented technologies.

## 2. Other Jurisdictions

To understand how other jurisdictions reached conclusions so drastically different than the United States, it is important to examine these jurisdictions' court system structures and the ways that these jurisdictions handle patent infringement lawsuits. The selected jurisdictions discussed in this section are those that have court system structures and procedures for patent infringement lawsuits that differ greatly from those of the United States. The United States can address many of the problems associated with patent infringement lawsuits by integrating aspects of the novel ways that these other jurisdictions approach these lawsuits.

### a. Europe

The German court system is structured similar to the United States' in the sense that there are trial courts, appellate courts, and a supreme court known as the Federal Court of Justice.<sup>94</sup> Unlike the United States, Germany has a specialized court that deals specifically with patent lawsuits, called the Federal Patent Court.<sup>95</sup> The Federal Patent Court has jurisdiction over cases involving the granting, denial, or withdrawal of industrial property rights.<sup>96</sup> Similar to the CAFC's appellate jurisdiction, the Federal Patent Court is a court of second instance and has jurisdiction over the appeals from the decisions of the German Patent and Trade Mark Office in cases involving patents, trademarks, utility models, and designs.<sup>97</sup> The 118 judges of the Federal Patent Court are divided into different boards that handle specific issues.<sup>98</sup>

One unique feature of the German Federal Patent Court is that its judges include not only lawyers, but also natural scientists, referred to as "technical judges."<sup>99</sup> These technical judges, who have all the rights and duties of a professional judge, sit on all cases related to the properties of a technical

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93. Warner-Jenkinson Co. v. Hilton Davis Chem. Co., 520 U.S. 17, 35 (1977).

94. See generally Gerhard Casper & Hans Zeisel, *Lay Judges in the German Criminal Courts*, 1 J. LEGAL STUD. 135, 142 (1972).

95. See *Home*, BUNDESPATENTGERICHT, <https://www.bundespapentgericht.de/cms/> (last visited Nov. 24, 2014).

96. *Id.*

97. *Id.*

98. See *id.* at *The Boards*, [https://www.bundespapentgericht.de/cms/media/Das\\_Gericht/Organisation/organigramm\\_en.pdf](https://www.bundespapentgericht.de/cms/media/Das_Gericht/Organisation/organigramm_en.pdf) (showing the different types of boards, as well as notable judges that preside on each board).

99. *Id.* at *Functions*.

invention.<sup>100</sup> Additionally, in Germany there are bifurcated infringement and validity proceedings.<sup>101</sup> This means that many times a court that is tasked with determining an infringement issue will grant a stay until the Federal Patent Court has decided on the issue of a patent's validity.<sup>102</sup> While there are significant differences between the courts of the United States and Germany, perhaps the most significant difference is the German courts' prohibition against jury trials in patent infringement proceedings.<sup>103</sup>

The issue of utility patent infringement in Germany is handled in a very similar manner to the way that it is handled in the United States.<sup>104</sup> Infringement can be either literal (i.e. the accused device possesses each and every limitation of the patented claims) or by equivalents.<sup>105</sup> While German courts use the same standard for claim construction—technical terms are construed according to the understanding of a person of ordinary skill in the pertinent art at the time of filing—because they do not leave the question of infringement to a jury, the outcomes of infringement cases are far more predictable.<sup>106</sup> Additionally, the damages awarded in Germany have traditionally been lower than those awarded in the United States, partly due to the fact that Germany has no concept of willful infringement.<sup>107</sup> In the United States, a finding of willful infringement allows the patent owner to request that the judge enhance the damages, up to three times compensatory damages.<sup>108</sup> Willful infringement is found if the patent holder can: (1) prove by clear and convincing evidence that the alleged infringer acted despite “an objectively high likelihood that its actions constituted infringement of a valid patent”; and (2) show that this objectively high risk was “either known or so obvious that it should have been known” to the alleged infringer.<sup>109</sup>

Similar to the Federal Patent Court of Germany, The Intellectual Property Enterprise Court (IPEC) in London is an alternative to the High Court for bringing legal actions involving intellectual property matters such as patents, registered designs, trademarks, unregistered design rights, and copyrights.<sup>110</sup> The Enterprise

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100. *Id.*

101. See Frank Peterreins, *Global Patent Enforcement Strategy: Germany*, FISH & RICHARDSON P.C., <http://www.fr.com/files/uploads/attachments/6.%20Frank%20Peterreins%20%28II%29%20-%20Patent%20Enforcement%20in%20Germany.pdf> (last visited Nov. 24, 2014) (outlining the German patent infringement proceedings and applicable patent infringement laws and analyses).

102. *Id.*

103. *Id.*

104. *Id.*

105. *Id.*

106. *Id.*

107. Peterreins, *supra* note 101.

108. 35 U.S.C. § 284; see also Timothy M. O' Shea, *New Rule For Proving Willful Infringement and Why Opinions From Patent Counsel Still Matter After Patent Reform*, LEXOLOGY, <http://www.lexology.com/library/detail.aspx?g=afac3f58-f817-4b00-a32e-04a93708bd33> (Jan. 28, 2013) (discussing the standards for willful infringement).

109. *Id.*

110. See generally *The Intellectual Property Enterprise Court Guide*, H.M. CTS. & TRIBS.

Judge of the IPEC is a Specialist Circuit Judge, and the judges of the High Court, Patents Court are able to sit as judges of the IPEC as necessary.<sup>111</sup> Additionally, certain senior members of the Intellectual Property Bar are qualified and able to sit in the IPEC when the need arises.<sup>112</sup> Similar to the technical judges in Germany, the IPEC aims to employ judges with a technical background to hear cases.<sup>113</sup>

European patents are granted by the European Patent Office, subject to an autonomous legal system that was instituted by the European Patent Convention.<sup>114</sup> Protection of intellectual property is covered by many international conventions, most of which are implemented by the World Intellectual Property Organization and the World Trade Organization.<sup>115</sup> The European Patent Convention dictates that there are four basic requirements for patentability that must be met to obtain a patent that is enforceable in the E.U.<sup>116</sup> The four requirements are: “(i) there must be an ‘invention,’ belonging to any field of technology . . . ; (ii) the invention must be ‘susceptible of industrial application’ . . . ; (iii) the invention must be ‘new’ . . . and (iv) the invention must involve an ‘inventive step’ . . . .”<sup>117</sup> Enforcement of European patents happens at the national level, and is subject to national laws.<sup>118</sup>

These European jurisdictions differ from the United States in one major way: they have court systems that are used specifically for intellectual property disputes, while the United States has no such specified court system. Creating courts specifically designed to address intellectual property disputes has allowed these European jurisdictions to utilize judges with backgrounds related to intellectual property. Of course, a more informed and educated judiciary will undoubtedly lead to more consistent and just results.

### *b. Asia*

Japan established its IP High Court in 2005 as a court specializing in intellectual property cases.<sup>119</sup> Unlike the German intellectual property court system,

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SERV. (April 2014), available at <https://www.justice.gov.uk/downloads/courts/patents-court/intellectual-property-enterprise-court-guide.pdf>.

111. *Id.* at 8.

112. *Id.*

113. *See id.*

114. *See generally* THE EUROPEAN PATENT CONVENTION (15th ed. 2013), [http://documents.epo.org/projects/babylon/eponet.nsf/0/00E0CD7FD461C0D5C1257C060050C376/\\$File/EPC\\_15th\\_edition\\_2013.pdf](http://documents.epo.org/projects/babylon/eponet.nsf/0/00E0CD7FD461C0D5C1257C060050C376/$File/EPC_15th_edition_2013.pdf) (providing all relevant agreements and documents related to European patents).

115. *See generally Summaries of EU Legislation: Intellectual Property*, EUROPA, [http://europa.eu/legislation\\_summaries/internal\\_market/businesses/intellectual\\_property/index\\_en.htm](http://europa.eu/legislation_summaries/internal_market/businesses/intellectual_property/index_en.htm) (last visited Nov. 24, 2014).

116. *See* European Patent Office [EPO], *Guidelines for Examination in the European Patent Office, Part G. Patentability*, at I-1 (Nov. 2014), available at [http://documents.epo.org/projects/babylon/eponet.nsf/0/56911A5DDF284B55C1257D81005FA359/\\$FILE/guidelines\\_for\\_examination\\_2014\\_part\\_g\\_en.pdf](http://documents.epo.org/projects/babylon/eponet.nsf/0/56911A5DDF284B55C1257D81005FA359/$FILE/guidelines_for_examination_2014_part_g_en.pdf).

117. *Id.*

118. Convention on the Grant of European Patents art. 64(3), Oct. 5, 1973, 13 I.L.M. 268.

119. *Current Status*, INTELLECTUAL PROP. HIGH COURT, <http://www.ip.courts.go.jp/eng/>

which assigns different courts for infringement and validity proceedings, the IP High Court is a court of first instance for appeals from decisions made by the Japanese Patent Office and an appellate court of second instance for civil cases relating to intellectual property.<sup>120</sup>

To address the technologically complex nature of many patent cases, Japan has established the role of Judicial Research Officials.<sup>121</sup> Judicial Research Officials are full-time court officials whose job is to assist judges by conducting extensive research on the technical matters necessary for hearing and resolving specific patent cases.<sup>122</sup> In an effort to make more reliable and convincing judgments, the IP High Court appoints additional technical advisors from a pool of experts with a wealth of knowledge and experience, including leading scholars, scientists, and patent attorneys in various technical fields.<sup>123</sup> These technical advisors are asked to participate in court proceedings and to provide judges and parties with unbiased explanations of the technically complex matters involved in the patent lawsuit at hand.<sup>124</sup> To ensure that the use of judicial research officials and technical advisors are as efficacious as possible, every year a “Technical Advisor Workshop” is held, in which technical advisors and judges participate in an exchange of ideas regarding how the use of technical advisors and Judicial Research Officials could be improved.<sup>125</sup>

Japanese patent law handles infringement similar to the way that other major jurisdictions do. There can be either literal infringement or infringement through equivalents.<sup>126</sup> The Japanese requirements for infringement through equivalents are slightly different from those used in the United States.<sup>127</sup> In Japan, an infringement may be found even if a portion of the patent claim is different from the alleged infringing product.<sup>128</sup> In which case, for the Doctrine of Equivalents Infringement to apply in Japan, the following five criteria must be considered: (1) the different portion is not an essential part of the patented invention; (2) the same function, results, and purpose of the patented invention are still obtained, even if the different portion is replaced by the corresponding element in the patented invention; (3) the replacement could have been easily conceived by a person skilled in the art with regards to when the patented product was manufactured; (4)

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aboutus/current/index.html (last visited Nov. 24, 2014).

120. *Jurisdiction*, INTELLECTUAL PROP. HIGH COURT, <http://www.ip.courts.go.jp/eng/aboutus/jurisdiction/index.html> (last visited Nov. 24, 2014).

121. *Current Status*, *supra* note 119.

122. *Id.*

123. *Id.*

124. *Id.*

125. *Id.*

126. *See* Shoichi Okuyama, *Patent Infringement Litigation in Japan*, JAPAN PATENT OFFICE ASIA-PACIFIC INDUSTRIAL PROP. CTR., JIII, 11 (2007), <http://quon-ip.jp/30e/Patent%20Infringement%20Litigation%20in%20Japan.pdf> (discussing the steps and applicable laws of patent infringement litigation in Japan).

127. *See id.* at 12.

128. *Id.*

the infringing product is not the same as the art publicly known at the time the patent was filed and the alleged infringement could not have been easily conceived by a person skilled in the art at this time; and (5) no special circumstances exist, “such as the international exclusion of the infringing product from the scope of the patented claim during the prosecution of the patent application for the patented invention.”<sup>129</sup> Japan is in line with every other major jurisdiction in the world, except for the United States, in that it does not utilize a jury to determine the issue of infringement.<sup>130</sup>

South Korea employs a court system structure most similar to Germany<sup>131</sup> in that it is a bifurcated litigation system.<sup>132</sup> The current litigation system “provides for a separation between jurisdiction over damages and infringement cases on one hand, and jurisdiction over invalidation cases on the other,” identical to the system in Germany.<sup>133</sup> Invalidation cases are heard before the Korean Intellectual Property Tribunal (KIPT), appeals from which are heard by the Patent Court.<sup>134</sup> Infringement cases, on the other hand, are heard by one of the twenty-two district courts.<sup>135</sup> These district courts may construe the scope of a patent and review the validity of the patent, but have no jurisdiction to rule on whether the patent is valid or invalid.<sup>136</sup> A problem faced by employing this bifurcated system is that a decision on patent invalidity or scope reached in an invalidation case may be entirely contra to a determination reached in an infringement case.<sup>137</sup>

To address this problem, the South Korean Presidential Council on Intellectual Property (PCIP) has proposed an integration of the patent litigation system.<sup>138</sup> The PCIP’s proposal would create two district courts for exclusive jurisdiction over infringement cases.<sup>139</sup> Additionally, the power of the Patent Court would be expanded to hear all appeals not only from the KIPT but also from the two aforementioned district courts.<sup>140</sup> The proposed system would concentrate

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129. *Id.*

130. *See id.* at 25 (indicating that juries are not used in intellectual property court proceedings in Japan); Bajwa, *supra* note 6, at 95 (noting that other nations, including Japan, do not utilize juries as the U.S. court system does for patent cases).

131. *See* Marathon PG, *America’s New Bifurcated Patent Litigation System*, (Apr. 15, 2015), <http://www.marathonpg.com/blog/detail/2175/americas-new-bifurcated-patent-litigation-system> (“Germany has a bifurcated system where separate courts consider the questions of validity and infringement.”).

132. *See* Jeong Gyu Kim, *South Korea: Proposed Integration of Patent Litigation*, *MANAGING INTELLECTUAL PROP.* (Mar. 28, 2014), <http://www.managingip.com/Article/3324857/South-Korea-Proposed-integration-of-patent-litigation.html> (discussing the bifurcated system in South Korea).

133. *Id.*

134. *Id.*

135. *Id.*

136. *Id.*

137. *Id.*

138. Kim, *supra* note 132.

139. *Id.*

140. *Id.*

patent cases in an attempt to avoid inconsistent determinations in invalidation and infringement cases over the same patent.<sup>141</sup>

### C. Comparison

Now that the notable results from other jurisdictions and their court systems have been highlighted, a proper comparison of the damages awarded by the jury in the United States can be drawn. To put the amount of damages into context, it is necessary to look at the size of the smartphone market in the applicable jurisdictions. The number of smartphones in use in the United States as of 2012 was at least 230 million.<sup>142</sup> In Japan, the number of smartphones in use was at least 78 million, while that number was 32 million in South Korea and 27 million in Germany.<sup>143</sup>

It is predictable that the relatively large smartphone market in the United States would increase the damages awarded. The true question, however, is whether the amount of damages awarded in the United States is proportionate when compared to the other jurisdictions, given the relative sizes of the smartphone markets. The smartphone market in the United States is roughly three times that of Japan, seven times that of South Korea, and eight times that of Germany.<sup>144</sup> Of the aforementioned three foreign jurisdictions, only South Korea awarded damages, in the amount of \$22,000 to Apple.<sup>145</sup> In order to be even roughly proportionate, the damages awarded in the United States would have needed to be around \$150,000; instead, the damages were \$1.05 billion.<sup>146</sup> The size of the respective smartphone markets is clearly not the driving force behind the difference in awarded damages. So what is the driving force?

In the United States, Apple claimed that Samsung infringed on three utility patents and four design patents.<sup>147</sup> In other jurisdictions Apple and Samsung were waging war over fewer patents of different types, mainly 3G technology patents.<sup>148</sup> Of course, both the number and type of patents fought over in other jurisdictions caused a difference in the outcomes, but this still does not account for such a massive difference in the amount of damages, if any. One factor that surely affected the amount of damages awarded was the amount that was sought by both

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141. *Id.*

142. Vikas Kaushik, *Ten Countries with the Maximum Number of Smart Phone Users*, TECHAHEAD (Jul. 19, 2013), <http://www.techaheadcorp.com/technology/10-countries-maximum-smartphonea/>.

143. *Id.*

144. *See id.*

145. Rim, *supra* note 58, at 5.

146. *Id.* at 8–9.

147. Carani, *supra* note 18, at 1.

148. *See* Yang, *supra* note 51 (discussing international patent claims filed by Samsung in response to Apple's initial filing in the United States); Duncan, *supra* note 1 (outlining the Apple-Samsung litigation timeline of events); Rim, *supra* note 58, at 5 (detailing the Apple v. Samsung litigation in Korea).



Apple and Samsung.<sup>149</sup> Apple originally sought \$2.75 billion while Samsung sought \$421 million in its countersuit.<sup>150</sup> The larger damages sought in the United States were similarly not proportional to the damages sought in other jurisdictions, even when considering the respective market sizes.<sup>151</sup> Therefore, the overarching question that must be asked is: why the United States?

### III. IS THE UNITED STATES' SYSTEM OF USING JURIES IN PATENT TRIALS FLAWED?

As it has already been discussed, the most distinctive feature of the United States' patent trial system is its use of juries.<sup>152</sup> Since this jury system likely prompted each party to seek greater damages,<sup>153</sup> the competency of the Apple-Samsung jury must be examined. After briefly discussing the jury's composition and competency, this comment will closely examine the adequacy of the decision it handed down. Finally, this comment will use this specific jury and the decision it handed down to draw conclusions about the current jury trial system in patent infringement cases.

#### A. Was the *Apple v. Samsung* Jury Effective?

##### 1. The Jury's Composition, Qualifications, and Decision

The Apple-Samsung jury in the U.S. District Court for the Northern District of California was composed of nine members: seven men and two women.<sup>154</sup> The ages of the jurors ranged from early 20s to late 60s.<sup>155</sup> Six jurors graduated from college, three went on to earn graduate degrees, and two jurors had some college education but did not graduate.<sup>156</sup> Of the nine jurors, only three owned tablets and four owned smartphones.<sup>157</sup> Despite the somewhat surprising fact that much of the jury owned neither a smartphone nor a tablet,<sup>158</sup> they should not be considered

149. See Lowensohn, *supra* note 5 (highlighting the large damages sought by Apple and Samsung).

150. *Id.*

151. See Hiroko Tabuchi & Nick Wingfield, *Tokyo Court Hands Win to Samsung over Apple*, NEW YORK TIMES (Aug. 31, 2012), [http://www.nytimes.com/2012/09/01/technology/in-japan-a-setback-for-apples-patent-fight.html?\\_r=0](http://www.nytimes.com/2012/09/01/technology/in-japan-a-setback-for-apples-patent-fight.html?_r=0).

152. Bajwa, *supra* note 6, at 95 (indicating that other nations do not utilize juries as the U.S. court system does for patent cases).

153. See *The Evolving IP Marketplace, Aligning Patent Notice and Remedies with Competition*, FED. TRADE COMM'N 162 (Mar. 2011), [www.ftc.gov/os/2011/03/110307patentreport.pdf](http://www.ftc.gov/os/2011/03/110307patentreport.pdf) (discussing the large disparity between damage awards made by juries compared to judges).

154. Greg Sandoval, *How Qualified is the Apple-Samsung Jury? We Found Out*, CNET (Aug. 24, 2012) <http://www.cnet.com/news/how-qualified-is-the-apple-samsung-jury-we-found-out/>.

155. *Id.*

156. *Id.*

157. Sandoval, *supra* note 154; Bajwa, *supra* note 6, at 90.

158. Sandoval, *supra* note 154; Bajwa, *supra* note 6, at 90.

technologically inept. Four jurors worked for technology companies, two were engineers, one worked for a hard-drive company, and one juror owned multiple Samsung and Apple products.<sup>159</sup> Additionally, one juror had previously owned a startup and had been issued a patent concerning video-compression software, making him the only member of the jury with patent experience.<sup>160</sup>

The level of juror sophistication relative to the pertinent technology will only affect infringement determinations of utility patents, and not design patents. Design patents involve the overall appearance and ornamental nature of the product.<sup>161</sup> Therefore, a juror with only a layman's understanding of the underlying technology would still be able to adequately decide on the issue of design patent infringement.<sup>162</sup> In fact, the "ordinary observer test" defined in *Gorham v. White*<sup>163</sup> states that the products must be viewed through the eyes of an ordinary observer and not through those of an expert in the field.<sup>164</sup> It is undeniable that the jurors' determination of design patent infringement accounted for a large amount of damages.<sup>165</sup> The allegedly infringed utility patents, however, covered far more Samsung devices than did the design patents.<sup>166</sup>

Although they were relatively well educated, the jurors were faced with a daunting verdict form which consisted of over 700 discrete points for consideration.<sup>167</sup> The jury was tasked with determining the issue of infringement on several patents and their applicability to many different products.<sup>168</sup> Further complicating things for the jurors was the ominous decision-making process required for determinations of patent infringement.<sup>169</sup> The first hurdle for the jurors was determining whether Apple's patents were valid and afforded Apple any protection.<sup>170</sup> Second, they had to determine which of Samsung's products

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159. Sandoval, *supra* note 154; Bajwa, *supra* note 6, at 90.

160. Sandoval, *supra* note 154.

161. *General Information Concerning Patents*, *supra* note 66, at 1–2.

162. *See id.* at 2 (explaining that a design patent is based only on appearance).

163. 81 U.S. 511, 528 (1871).

164. 81 U.S. 511, 528 (1871) (“[I]f, in the eye of an ordinary observer . . . two designs are substantially the same, if the resemblance is such as to deceive such an observer . . . the first one patented is infringed by the other.”).

165. *See The Evolving IP Marketplace, Aligning Patent Notice and Remedies with Competition*, *supra* note 153, at 162.

166. *See* Josh Ong, *Here's the Device-by-Device Breakdown of Apple's Damage Claims Against Samsung*, THENEXTWEB (Aug. 7, 2012, 12:47 PM), <http://thenextweb.com/apple/2012/08/07/heres-the-device-by-device-breakdown-of-apples-damages-claims-against-samsung/> (charting the specific Apple utility patents and design patents Samsung allegedly infringed).

167. James Niccolai, *Quick Verdict in Apple Trial Doesn't Mean Jury Shirked Its Duty, Expert Says*, COMPUTERWORLD (Aug. 24, 2012, 11:26 PM), <http://www.computerworld.com/article/2491600/mobile-wireless/quick-verdict-in-apple-trial-doesn-t-mean-jury-shirked-its-duty-expert-says.html>.

168. Bajwa, *supra* note 6, at 91.

169. *See id.* at 91–94 (discussing the questions the jury had to resolve in determining infringement).

170. *Id.* at 92.

infringed on the valid patents.<sup>171</sup> Finally, they were tasked with determining the amount of damages that should be awarded for each infringement.<sup>172</sup>

The first hurdle proved to be a point of great debate and controversy among the jurors, with many doubting that Apple's design patent covering a tablet with rounded edges was not in some way disqualified by some existing prior art.<sup>173</sup> In the end, the jury found that all four of Apple's design patents, as well as its three utility patents, were valid and afforded Apple legal protection.<sup>174</sup> In regards to Samsung's patents that were allegedly infringed by Apple, the jury also found those patents valid.<sup>175</sup>

The second and third steps required that the jury examine both the Apple and Samsung products to determine whether or not the products actually infringed either Apple's or Samsung's valid patents, and, if so, then determine the monetary damages associated with each infringement.<sup>176</sup> In the end, the jury overwhelmingly ruled in Apple's favor.<sup>177</sup> The jury determined that, except for the D'889 design patent covering the iPad, Samsung had infringed Apple's design patents as well as all three of its utility patents with a number of devices.<sup>178</sup> Further adding to the damages was the jury's finding that Samsung's infringement was willful for all but two design patents.<sup>179</sup> With regards to Apple's alleged infringement of Samsung's patents, the jury determined that none of Samsung's patents were infringed and that Samsung would be awarded zero damages.<sup>180</sup>

## 2. Did the Jury Get it "Right?"

If the jury's task of considering upwards of 700 discrete points<sup>181</sup> did not complicate the decision-making process enough, Judge Koh<sup>182</sup> delivered a set of instructions to the jury that consisted of 109 pages with 84 separate instructions.<sup>183</sup> Despite this gargantuan task, the jury delivered its verdict in only 21 hours, less

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171. *See id.*

172. *Id.* at 94.

173. *See id.* at 92.

174. *See* Lowensohn, *supra* note 5.

175. *See id.*

176. Bajwa, *supra* note 6, at 92.

177. *See* Lowensohn, *supra* note 5.

178. *See* Dieter Bohn, *Samsung Infringed on Apple iPhone Design Patents, But Not iPad Design Patents, Jury Rules*, THE VERGE (Aug. 24, 2012, 6:50 PM), <http://www.theverge.com/2012/8/24/3266382/apple-vs-samsung-design-patent-infringement/in/3030480>.

179. *Id.*

180. *See* Lowensohn, *supra* note 5.

181. Niccolai, *supra* note 167.

182. Judge Koh of the U.S. District Court for the Northern District of California presided over the Apple-Samsung patent infringement trial. Carani, *supra* note 18, at 1.

183. *See* Philip Elmer-DeWitt, *The Judge's 109-pp Instructions to the Apple v. Samsung Jury*, FORTUNE (Aug. 21, 2012, 6:39 PM), <http://fortune.com/2012/08/21/the-judges-109-pp-instructions-to-the-apple-v-samsung-jury/> (discussing the complicated and numerous jury instructions delivered by Judge Koh).

than three work days.<sup>184</sup> This surprisingly short deliberation time has caused many experts to question whether or not the jury adequately performed its duties.<sup>185</sup>

After the trial, one juror stated that after the very first day of deliberations, the nine-person jury all agreed Samsung had wronged Apple.<sup>186</sup> The same juror also stated that the jurors relied on the experience of the jury foreman, who had experience in patents and even owned one himself.<sup>187</sup> After the foreman took the other members of the jury through his experience it was apparently easier for them to rule on some issues.<sup>188</sup> While this reliance on the jury foreman's experience may seem harmless to some, it directly contradicts parts of Judge Koh's jury instructions, which specifically state that the jurors "must decide the case solely on the evidence before [them]."<sup>189</sup>

As noted earlier, the very first step in the juror's decision-making process is to determine whether Apple's patents are valid and are to be afforded legal protection.<sup>190</sup> Making this determination is a challenging task for even the most trained patent minds of the legal community and, therefore, is even more challenging for a jury with minimal experience in conducting this type of analysis.<sup>191</sup> Prior art—anything that was in the public domain prior to the date of invention—is a crucial element of the validity analysis and has the potential to immediately invalidate a patent.<sup>192</sup> As prior art is such a crucial consideration in the determination of patent validity,<sup>193</sup> one would assume that the jury in this case made the decision very carefully and by weighing the appropriate evidence. However, there is evidence that this assumption is wrong.<sup>194</sup> The same juror that indicated a reliance on the jury foreman stated that the question of prior art was

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184. Greg Sandoval, *Exclusive: Apple-Samsung Juror Speaks Out*, CNET (Aug. 25, 2012, 9:34 AM), <http://www.cnet.com/news/exclusive-apple-samsung-juror-speaks-out/> (highlighting the key statements of an interview with one of the jury members).

185. See Nicolai, *supra* note 167 (examining critiques of the jury verdicts in the Apple-Samsung trial).

186. See Sandoval, *supra* note 154 (highlighting the key statements of an interview with one of the jury members).

187. *Id.*; Bajwa, *supra* note 6, at 92 (discussing surprising flaws of the jury's decision-making process during their brief deliberation).

188. Sandoval, *supra* note 154; Bajwa, *supra* note 6, at 92 (discussing surprising flaws in the jury's decision-making process during their brief deliberation).

189. Bajwa, *supra* note 6, at 92 (quoting Final Jury Instruction at 8, *Apple v. Samsung Elecs. Co.*, 768 F. Supp. 2d 1040 (N.D. Cal. 2011)).

190. See *id.* at 91 (discussing the task faced by the jury and the complexities of the issues they had to consider).

191. See generally Joel C. Johnson, *Lay Jurors in Patent Litigation: Reviving the Active, Inquisitorial Model for Juror Participation*, 5 MINN. INTELL. PROP. REV. 339 (2004) (discussing the complex issues jurors face in patent litigation).

192. See *General Information Concerning Patents*, *supra* note 66 (defining the requirements for a patent).

193. *Id.*

194. See Sandoval, *supra* note 184 (highlighting the key statements of an interview with one of the jury members).

“bogging us down,” and that in order to proceed faster they “skipped that one.”<sup>195</sup> Considering that the jury completely skipped the prior art question for at least one of Apple’s patents, there is a possibility that the patent (or patents) was not valid to begin with and should have been afforded no legal protection.

In response to those who claimed that the jury inadequately performed their duties, the juror who spoke out stated that all jury members “took their job seriously and didn’t take any shortcuts.”<sup>196</sup> He went on to state that they were patient and “wanted to do the right thing, and not skip any evidence,” and further claimed that they were thorough.<sup>197</sup> One expert, Roy Futterman,<sup>198</sup> is of the opinion that the surprisingly quick verdict does not mean that the jury shirked its duty.<sup>199</sup> Futterman argues that because the verdicts were consistent on both infringement and validity, it “all tells the same big story.”<sup>200</sup> Futterman points to the fact that the jury was selective in which devices infringed, indicating that they were thoughtful in the deliberation process.<sup>201</sup>

Two months after the trial, the USPTO ruled that a claim in Apple’s “bounce-back” utility patent was invalid due to prior art.<sup>202</sup> While this ruling was a non-final action and Apple had the right and ability to amend the rejected claim, it does add weight to the argument that the jury was inadequate in determining patent validity based on the prior art question.<sup>203</sup> The subsequent USPTO decision suggests that the jury got at least one determination wrong, and found evidence suggesting the jury “skipped” the prior art analysis all together.<sup>204</sup> The inadequate analysis performed by the jury raises many important questions. Would the lay-jurors have made the proper determination if they had not skipped the prior art question? Is a jury of non-experts capable of ruling on validity and infringement issues that trouble even the most trained technology experts and patent lawyers? If the current method of jury utilization in patent infringement cases does not work, what can be done about it?

#### IV. WHAT CAN BE DONE TO FIX THE JURIES IN PATENT INFRINGEMENT SUITS?

If the Apple-Samsung jury’s inability to adequately perform a correct patent infringement analysis was an isolated incident, there would be much less cause for

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195. *Id.*

196. *Id.*

197. *Id.*

198. Roy Futterman is a director at DOAR Litigation Consulting and a clinical psychologist who works on trial strategies and the mindset of jurors.

199. *See* Niccolai, *supra* note 167 (examining the adequacy of the Apple-Samsung jury verdicts).

200. *Id.*

201. *Id.*

202. Bajwa, *supra* note 6, at 93.

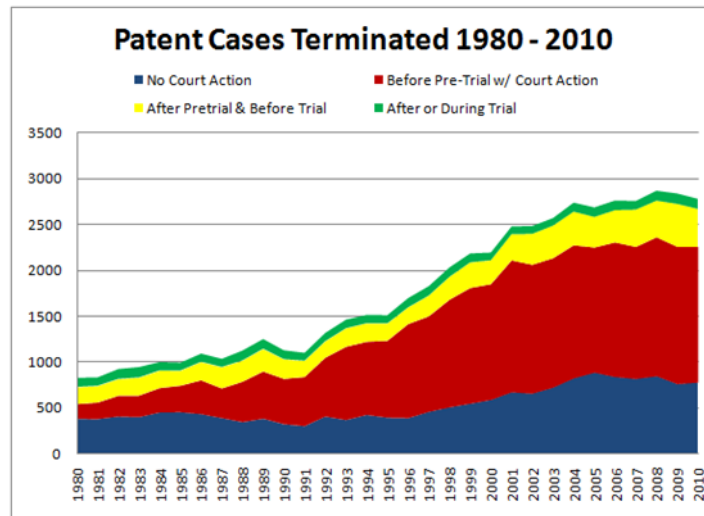
203. *Id.*

204. *See* Bajwa, *supra* note 6, at 93 (discussing the decision of the USPTO that contradicted the verdicts of the Apple-Samsung jury); *see also* Sandoval, *supra* note 184 (highlighting a juror’s statement that a key question was skipped).

concern. Unfortunately, the Apple-Samsung jury represents a larger problem that is becoming prevalent in the patent infringement litigation landscape.<sup>205</sup> This section will begin by looking at trends over the past few decades in order to show how far-reaching the problem of using lay juries in patent infringement cases has become, as well as how potentially damaging it could become if it is not addressed. This section will then discuss possible approaches for addressing the problem and any obstacles that stand in the way.

### A. The Growing Problem

It is important to understand that this problem—the use of layman juries in patent infringement lawsuits—is not a recent development, as civil suits in the United States have always utilized lay-juries.<sup>206</sup> Interestingly, it is not the drastic increase in the number of patent cases being initiated that has thrust the problem of lay juries into the forefront of discussion.<sup>207</sup> While the increase in initiated patent cases has been quite substantial—increasing from around 750 in 1980 to over 3,000 in 2010—there is not a statistically significant increase in the number of actual trials over the thirty-year period.<sup>208</sup> Table 1 shows that while the number of patent cases initiated greatly increased from 1980–2010, the number of cases that made it to a jury trial remained relatively constant, as indicated by the constant green area.<sup>209</sup>



205. See generally Bajwa, *supra* note 6; Johnson, *supra* note 191.

206. See U.S. CONST. amend. VII (preserving the right of trial by jury).

207. See Gene Quinn, *Patent Litigation Statistics: 1980–2010*, IPWATCHDOG (Aug. 2, 2011), <http://www.ipwatchdog.com/2011/08/02/patent-litigation-statistics-1980-2010/id=17995/> (showing graphs of relevant statistics concerning patent litigation over a 30-year period and analyzing relevant data).

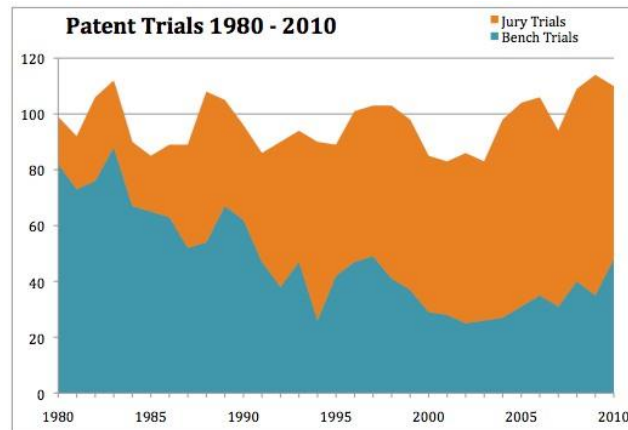
208. *Id.*

209. *Id.*

**Table 1**

While Table 1 clearly shows a dramatic increase in the number of patent cases initiated, this increase can largely be attributed to parties commencing cases for strategic purposes, which is why such a large majority were terminated prior to any court action and before trial.<sup>210</sup>

If the drastic increase in patent cases filed from 1980–2010 did not correspond to an increase in the number of cases that made it to trial, why have the use of juries recently been subjected to greater scrutiny? The answer lies within Table 2, which shows the number of cases that are bench trials versus those that are jury trials over the same thirty-year period.<sup>211</sup>

**Table 2**

In 1980, a majority of patent trials were bench trials; whereas, in 2010, a significant majority of patent trials were jury trials.<sup>212</sup> It is clear that the number of patent cases initiated has not caused the use of lay juries to be increasingly called into question.<sup>213</sup> Rather, it is the choice of litigators to hold for jury trials instead of bench trials that has turned the critical spotlight onto the utilization of lay juries.<sup>214</sup>

There is a number of factors that will influence whether a party chooses a jury

210. *Id.*

211. *Id.*

212. *Id.*

213. See Quinn, *supra* note 207 (showing graphs of relevant statistics concerning patent litigation over a 30-year period and analyzing relevant data).

214. *Id.*

trial.<sup>215</sup> One such factor is that jury trials are generally shorter than bench trials, so parties seeking a more immediate certainty may choose a jury trial.<sup>216</sup> Additionally, juries tend to be susceptible to certain sympathetic themes—such as the “small inventor against the giant heartless corporation” theme, among others—and may push their verdict in one direction or another and carry the possibility of increased damages resulting from a jury’s sympathetic emotions.<sup>217</sup> In fact, between 2010 and 2013 the median jury award of damages was 37.5 times greater than the median bench award.<sup>218</sup> Juries are also inclined to rule in favor of protecting patent rights, and they tend to favor American corporations over foreign corporations, establishing two more factors that influence the decision of whether to choose a jury.<sup>219</sup> In examining the Apple-Samsung litigation, it is easy to see why Apple sought to have a jury trial. Apple is an American corporation whose patents were under attack by a foreign technology giant.<sup>220</sup>

With an increase in the number of cases being tried before a jury of lay-people, it is important to look at the industries involved in various cases. A jury of lay-people will predictably have a greater chance for error in cases that concern complex technologies or pharmaceuticals, which generally require expert-level knowledge to comprehend.<sup>221</sup> Just as in any civil lawsuit, lay jurors in patent infringement cases involving complex technologies evaluate the pertinent facts based on their own preconceived values, attitudes, prejudices, and emotions.<sup>222</sup> As of 2014, the industries with the largest number of patent suits were the consumer products, biotechnology/pharma, industrial/construction, and computer hardware/electronics industries.<sup>223</sup> Interestingly, the order of the industries within that category with respect to the greatest median damages awarded was telecom, then biotechnology/pharma, medical devices and computer hardware industries.<sup>224</sup>

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215. See generally John M. Griem, Jr. & Emily Jayne Kunz, *Jury Trials in Patent Cases*, 7 L.J. NEWSLS. PAT. STRATEGY & MGMT. (Jan. 2007) (discussing the factors that influence the choice of a bench trial versus a jury trial in patent infringement cases and the reasons behind such decisions).

216. *Id.*

217. *Id.*

218. *2014 Patent Litigation Study: As Case Volume Leaps, Damages Continue General Decline*, PWC 3 (July 2014), [http://www.pwc.com/en\\_US/us/forensic-services/publications/assets/2014-patent-litigation-study.pdf](http://www.pwc.com/en_US/us/forensic-services/publications/assets/2014-patent-litigation-study.pdf).

219. See generally Griem & Kunz, *supra* note 215 (explaining factors that can influence the decisions of a jury).

220. See generally Duncan, *supra* note 1.

221. See generally Johnson, *supra* note 191.

222. See LeRoy L. Kondo, *Untangling the Tangled Web: Federal Court Reform Through Specialization for Internet Law and Other High Technology Cases*, UCLA J.L. & TECH. 1, 97 (2002) (discussing the problems faced by the current judicial system in regards to adjudicating cases involving complex technologies); see also Bajwa, *supra* note 6, at 88 (discussing the problems resulting from juries composed of lay people determining complex patent infringement cases).

223. *2014 Patent Litigation Study*, *supra* note 216, at 12.

224. *Id.* at 13.



The pertinent question here is whether these industries are particularly susceptible to jury error due to lack of comprehension of the subject matter. This paper argues that they are. Patentable subject matter in the telecom, biotechnology/pharma, medical device, and computer hardware industries likely require advanced degrees to adequately understand the technology<sup>225</sup> to the point of being able to accurately decide on issues of infringement. It is no coincidence that litigants in these particular industries were awarded more money by juries who likely could not understand the intricacies of the technology at an expert level, which is akin to what happened in *Apple v. Samsung*.<sup>226</sup> All of the available evidence suggests that patent litigation will continue to grow,<sup>227</sup> meaning that the increasingly prevalent issue of the questionable effectiveness of lay-juries in patent infringement suits will remain just that—prevalent.

## **B. Fixing the Problem**

### **1. The Judiciary**

Altering the jury system is a task that will be met not only by constitutional hurdles,<sup>228</sup> but also by practical and implementation hurdles.<sup>229</sup> Before addressing the firmly entrenched jury system, there are other actions that the United States can take that will help minimize jury error without changing the actual jury. In 2013, the United States made a major effort to harmonize itself with the rest of the patent world by implementing the Leahy-Smith America Invents Act (AIA).<sup>230</sup> There are

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225. See generally Kevin Wandrei, *What Type of Education Do You Need to Work in Biotechnology?*, DEMAND MEDIA, <http://classroom.synonym.com/type-education-need-work-bio-technology-11877.html> (discussing the degrees and qualifications practical for working in the biotechnology field) (last visited Sept. 24, 2015); *Career Overview: Pharmaceuticals*, WETFEET (Dec. 3, 2012), <http://www.wetfeet.com/articles/career-overview-pharmaceuticals> (highlighting the advanced degrees that are in demand in the pharmaceutical industry).

226. *Apple v. Samsung Elec. Co.*, 768 F. Supp. 2d 1040 (N.D. Cal. 2011) (awarding Apple more than one billion dollars in damages); see also Niccolai, *supra* note 167 (discussing the verdicts in the Apple-Samsung case).

227. See generally *2014 Patent Litigation Study*, *supra* note 216 (discussing the growing numbers of patent litigation); see also Quinn, *supra* note 207 (highlighting graphs and relevant patterns of statistics of patent litigation).

228. See U.S. CONST. amend. VII (preserving the right of trial by jury).

229. See Bajwa, *supra* note 6, at 102–06 (discussing the practicality of changing the U.S. jury system).

230. Leahy-Smith America Invents Act, 35 U.S.C. §§1-381 (2011). One of the most substantial changes implemented by the AIA was a switch to the “first to file” system from the “first to invent” system that the United States previously utilized. *Id.* at § 3. Under the “first to invent” system, two inventors claiming the same invention would have to prove who invented the invention first. *Id.* at § 102(g). Determining who the true first inventor was proved to be incredibly time consuming and difficult. William F. Lawrence, Tomas J. Kowalski & Samuel H. Megerditchian, *Interference Proceedings: When Inventions Collide*, BUILDING IP VALUE, [http://www.buildingipvalue.com/n\\_us/137\\_141.htm](http://www.buildingipvalue.com/n_us/137_141.htm) (last visited Nov. 23, 2015). Under the “first to file” system, however, the first person to file the patent application with the USPTO will be the one to get the patent, should it be granted. Leahy-Smith America Invents Act, 35 U.S.C. § 102 (2011). As the United States was the only nation that did not utilize the “first to file” system

additional elements of foreign jurisdictions that the United States can adopt that will both aid in the minimization of jury error and further harmonize the United States with the rest of the patent world.

Congress has already made efforts to alter the judicial structure in a patent-friendly way by creating the Patent Pilot Program.<sup>231</sup> This program identifies fourteen specific federal district courts to which any federal district court may choose to divert a patent case.<sup>232</sup> The goal of the Patent Pilot Program is to enhance expertise in patent cases amongst U.S. district judges.<sup>233</sup> With Congress's clear desire to increase judicial efficiency and expertise, certain aspects of foreign systems must be examined to determine whether implementation of such systems in the United States is feasible.

In *Markman v. Westview Instruments, Inc.*<sup>234</sup> the Supreme Court ruled that the question of claim construction—the determination of what the words of a claim mean and what they specifically cover—is exclusively within the province of the court, not the jury.<sup>235</sup> As a result of *Markman*,<sup>236</sup> courts now hold “*Markman* hearings” to rule on claim construction; however, the Supreme Court failed to give any explicit instructions on procedures for performing claim construction.<sup>237</sup> Accordingly, a lay judge who does not adequately understand the specific technology being litigated can still affect the outcome in a jury trial.<sup>238</sup>

The potentially damaging impact of poor claim construction by a lay judge who does not understand the underlying subject matter can be minimized by adopting a system similar to that of Japan. As discussed in section II, Japan has established the role of judicial research officials.<sup>239</sup> The role of these officials is to assist judges by conducting extensive research on the technical matters necessary for hearing and resolving specific patent cases.<sup>240</sup> By adopting a similar system of educating judges the United States can minimize the risk of improper claim construction.

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before the AIA, a switch to this system shows the United States' desire to harmonize its practices with the rest of the world.

231. See Karen Redmond, *District Courts Selected for Patent Pilot Program*, UNITED STATES COURTS (June 7, 2011) [http://www.uscourts.gov/News/NewsView/11-06-07/District\\_Courts\\_Selected\\_for\\_Patent\\_Pilot\\_Program.aspx](http://www.uscourts.gov/News/NewsView/11-06-07/District_Courts_Selected_for_Patent_Pilot_Program.aspx) (discussing the structure and function of the Patent Pilot Program).

232. *Id.*

233. *Id.*

234. 517 U.S. 370, 384 (1996).

235. *Id.*

236. *Id.*

237. See generally Vincent P. Kovalick, *Markman Hearings and Their Critical Role in U.S. Patent Litigation*, FINNEGAN (Oct. 2009), [http://www.finnegan.com/resources/articles/articles\\_detail.aspx?news=9a8bf39b-c419-4329-9f6a-08ac0a647c7c](http://www.finnegan.com/resources/articles/articles_detail.aspx?news=9a8bf39b-c419-4329-9f6a-08ac0a647c7c) (discussing the role judges play in the determination of claim construction).

238. *Id.*

239. *Current Status*, *supra* note 118.

240. *Id.* (explaining the role and duties of judicial research officials in Japan).

The United States can create a position synonymous to a judicial law clerk, whose job is to perform research and educate judges on the applicable underlying subject matter before a *Markman*<sup>241</sup> hearing.<sup>242</sup> Judicial clerkships are among the most prestigious and competitive employment opportunities available to recent law school graduates.<sup>243</sup> Due to the prestigious nature of the position, a court that routinely hears patent cases would likely have no trouble finding a qualified applicant. The cost of implementing a system like this is virtually insignificant when compared to the resulting benefits. Depending on geographical location, which court the clerk works for, experience after graduating law school, and bar membership, the median yearly salary of a judicial clerk is about \$54,000.<sup>244</sup>

By implementing this system, a court will more accurately construe claims during a *Markman* hearing, which will result in a more accurate downstream jury decision on the issue of infringement. Additionally, due to the importance of *Markman* hearings, parties will often attempt to educate the judge on the underlying subject matter.<sup>245</sup> Oftentimes a party will even hire graphics consultants to create visuals to assist in the education of the judge.<sup>246</sup> These attempts to educate the judge are time consuming, even more expensive for the client, and susceptible to the inherent bias in having the educating done by a party with huge stakes in the outcome of the hearing.<sup>247</sup> Implementation of a position that has the role of educating judges will not only expedite the *Markman*<sup>248</sup> hearings but will also make them cheaper for clients.

The United States can also implement features of the German system for handling patent cases, although this would be more difficult. As discussed in section II, the characteristics of the Federal Patent Court of Germany that distinguish it from the CAFC are the number of judges, the issue-specific boards, and the role and background of certain judges.<sup>249</sup> The particularly unique aspect of the Federal Patent Court of Germany that the United States could draw from is the

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241. 517 U.S. 370.

242. See generally Kovalick, *supra* note 237.

243. *Judicial Clerkship Guide*, ROBERT H. MCKINNEY SCH. L., <http://mckinneylaw.iu.edu/careers/judicial-clerkships-guide.html> (last visited Sept. 28, 2015) (discussing many aspects of judicial clerkships such as the role of a judicial clerk, the compensation, and the required qualifications).

244. *Id.*

245. See Kovalick, *supra* note 237 (discussing the importance of a *Markman* hearing and the additional tasks faced by a party in educating the judiciary in order to influence the claim construction).

246. *Id.*

247. See Mike Masnick, *Pilot Program to Educate Judges on Patent Issues Really Depends on Who's Doing the Educating*, TECHDIRT (Jan. 26, 2009, 1:54PM), <https://www.techdirt.com/articles/20090124/1334173521.shtml> (stating that if the educating program comes from patent attorneys, then the result could be much worse, because judges will have been taught only one side of issue).

248. 517 U.S. 370.

249. BUNDESPATENTGERICHT, *Functions*, [https://www.bundespapentgericht.de/cms/index.php?option=com\\_content&view=article&id=2&Itemid=8&lang=en](https://www.bundespapentgericht.de/cms/index.php?option=com_content&view=article&id=2&Itemid=8&lang=en) (last visited Sept. 28, 2015).

use of “technical” judges.”<sup>250</sup> Although these technical judges have all of the rights and duties of a regular judge—without actually having a degree in law—in the Federal Patent Court of Germany,<sup>251</sup> it would not be feasible to give them comparable responsibilities in the CAFC with regards to patent cases. If a technical judge had equal rights and duties to a regular judge, the errors attributed to a lack of judicial understanding of the underlying subject matter would certainly be minimized; however, the proper application of the law and analysis of secondary considerations that judges are trained to carefully weigh would be put at risk.

While implementing technical judges into the CAFC is not feasible, the United States can still implement a feature of the Federal Patent Court of Germany. Just as the Federal Patent Court of Germany divides itself into boards that are tasked with handling specific issues,<sup>252</sup> the CAFC could create divisions to handle patent issues. It is not uncommon for a judge on the CAFC to have a background in science or technology.<sup>253</sup> However, because having such a background is not a requirement for becoming a judge on the CAFC, there is the possibility of having lay judges influence patent cases.<sup>254</sup>

Creating a specific division of the CAFC that exclusively hears patent cases and is staffed only by judges who have a science or technology background would have a two-pronged effect. First, the accuracy and efficiency of decisions issued by this “patent-division” of the CAFC would increase. Second, the efficiency of the CAFC as a whole would greatly improve. In 2013, 448 patent infringement appeals were filed in the CAFC.<sup>255</sup> If a specific division of the CAFC were able to hear patent infringement appeals while the main division was able to hear non-patent appeals, the overall efficiency of the CAFC would greatly improve. Additionally, the judicial clerks discussed above could aid the judges on the CAFC.

## 2. The Jury

The possible changes to the judiciary that were just discussed are aimed at minimizing the chance that a jury error will affect the overall outcome. Altering the jury itself is a task that is met by greater constitutional and implementation problems.<sup>256</sup> When confronted by the problems posed by juries in complex patent cases, the first solution that is likely to be raised is abolishing the use of juries in patent infringement cases altogether. This proposed solution is poorly thought out

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250. *Id.*

251. *See id.* (stating that technical judges have all the rights and duties of a professional judge).

252. *See id.* (explaining that judges are divided and sitting on different boards, including nullity boards, technical boards of appeal, boards of appeal for trademarks, and so on).

253. *See Judges*, U.S. COURT OF APPEALS FOR THE FED. CIRCUIT, <http://www.cafc.uscourts.gov/judges> (last visited Sept. 26, 2015) (detailing the biographies of the judges on the CAFC).

254. *Id.*

255. *See Statistics*, U.S. COURT OF APPEALS FOR THE FED. CIRCUIT, <http://www.cafc.uscourts.gov/the-court/statistics> (last visited Sept. 26, 2015) (providing graphs that show many different statistics related to appeals filed and decisions issued by the CAFC).

256. U.S. CONST. amend. VII.

and is likely impossible. The Seventh Amendment to the United States Constitution provides for the right to a trial by jury.<sup>257</sup> Due to the absence of any language whatsoever in the Constitution that would allow for patent cases to specifically restrict the rights afforded by the Seventh Amendment,<sup>258</sup> the abolishment of the jury will not happen. In addition to facing the seemingly insurmountable wall that is the U.S. Constitution, an attempt to abolish the jury in patent cases will likely be met by heavy opposition from patent lawyers and clients alike. As evidenced by statistics that show that more and more people are choosing a jury trial over a bench trial,<sup>259</sup> clients prefer to try their case before a jury because they feel that they can influence the amount of damages that they receive.<sup>260</sup>

While having a jury composed entirely of experts in the applicable field of study would undoubtedly reduce errors derived from incomprehension of the underlying subject matter of a patent, there are still obstacles that would prevent implementation. First, this proposed solution assumes that unbiased experts exist.<sup>261</sup> Many people who would be considered experts are those who have performed detailed research and published in a particular field, taught the topic at a higher level, or have otherwise been recognized by their peers as an expert.<sup>262</sup> Seeing that experts in any given scientific field have likely performed research at the highest level, they have likely developed opinions regarding legal protection of scientific discoveries and work.<sup>263</sup> In fact, scientific experts tend to favor stricter protection of intellectual property rights.<sup>264</sup> Creating a jury composed of experts—who are likely to have a preconceived favoritism toward protecting patents—will potentially produce just as many inaccurate verdicts as a jury of lay people. A more feasible proposal is to create pools of technically competent and unbiased experts from which juries could be drawn or that exist to merely aid the judiciary.<sup>265</sup>

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257. *Id.*

258. *See generally* U.S. CONST. (confirming that there is no language in the Constitution that allows for the restriction of the right to a trial by jury in patent cases).

259. Quinn, *supra* note 207.

260. *Abolition of Jury Trials in Patent Cases*, 34 IDEA: J.L. & TECH. 77, 78 (1994), [http://ipmall.info/hosted\\_resources/IDEA/p77.Conference.pdf](http://ipmall.info/hosted_resources/IDEA/p77.Conference.pdf).

261. *See* Kondo, *supra* note 222, at 149 (discussing possible prejudices expert jury members might hold).

262. *Cf.* Webster, *supra* note 10 (stating that university faculty who are often asked to be expert witnesses established reputations through writing books or journal articles).

263. Kondo, *supra* note 222 (describing the difficulty in finding a neutral and unbiased expert).

264. *See* Carlos M. Correa & Carolyn Deere, *Principles and Guidelines for the Provision of Technical Cooperation on Intellectual Property: Elements for Consideration*, ICTSD DIALOGUE ON TECHNICAL COOPERATION FOR IP POLICY IN DEVELOPING COUNTRIES; GENEVA 4 (July 11–12, 2005), [https://iprsonline.org/ictsd/Dialogues/2005-07-11/TechnicalAssistance\\_Deere\\_Correa.doc](https://iprsonline.org/ictsd/Dialogues/2005-07-11/TechnicalAssistance_Deere_Correa.doc).

265. *See* Kondo, *supra* note 222, at 312 (discussing the problems faced by the current judicial system in regards to adjudicating cases involving complex technologies); *see also* Bajwa, *supra* note 6, at 104 (briefly stating some of the existing proposed solutions to the problem of

The second obstacle is providing enough incentive for experts to voluntarily enter into the pools from which expert juries will be drawn. The best incentive is obviously adequate monetary compensation, but this will likely be a prohibitively expensive incentive to provide. The cost of hiring an expert witness to testify is ordinarily several hundred dollars per hour.<sup>266</sup> The more complex a patent case is and the more patents being sued over, the longer the case will take and the more the experts are going to have to be paid. On the other hand, a lay juror is paid only forty dollars per day (for federal courts).<sup>267</sup> The two possible ways to account for the costs of “hiring” an expert jury are to charge the litigating parties, or put the cost onto the taxpayers. Neither of these possibilities will be viewed favorably and both will likely meet vehement opposition.

A second incentive that would spur experts to enter themselves into the pool of candidates for an expert jury selection is by having the selection of the expert jury viewed as an accolade and a testament to their achievement in the pertinent field, as opposed to being viewed as a duty.<sup>268</sup> How to go about doing this is a topic that is outside the scope of this article and will not be addressed. However, it is unlikely that pools of technical experts can be created on a volunteer basis without adequate monetary compensation.

A possible alternative to providing incentives to get experts to voluntarily enter the pool of potential expert jurors is to make jury service mandatory. A classification system would have to be created that would classify certain professionals as “experts” in their respective field based on factors such as degrees, publications, patents, peer recognition, and things of this nature. This approach has some obvious drawbacks. The major downside is that it imposes an unfavorable duty upon people who work to excel in their respective fields. It has the possibility of de incentivizing scientific achievement, which is exactly opposite the goal of patent law.<sup>269</sup>

Creating pools of experts on either a volunteer or mandatory basis has substantial hurdles that will likely prevent implementation.<sup>270</sup> However, another alternative is to utilize the patent examiners at the USPTO. A jury composed of patent examiners from the USPTO has the potential to solve the biggest problems with using a lay jury while simultaneously avoiding many of the drawbacks associated with creating a pool of experts from outside the USPTO. Patent

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juries deciding complex patent cases).

266. See Webster, *supra* note 10 (stating that expert witness fees amount to several hundred dollars and vary in accordance with the level of degree and existence of publications); see also *Expert Witness Fee Study*, *supra* note 10 (discussing a study conducted to determine expert witness fees at different stages of a trial and for different types of experts).

267. *Juror Pay*, UNITED STATES COURTS, <http://www.uscourts.gov/FederalCourts/JuryService/JurorPay.aspx> (last visited Sept. 26, 2015).

268. See Nathaniel Bruno, *The Modern Jury: Why Trust Justice to Amateurs?*, NAT'L L.J. 2 (Jan. 30, 2006), [https://www.sheppardmullin.com/media/article/353\\_pub486.pdf](https://www.sheppardmullin.com/media/article/353_pub486.pdf) (stating that the position of a professional juror can become a respectable and relatively well-paid position).

269. U.S. CONST. art. I, sec. § 8, cl. 8.

270. Bruno, *supra* note 263.

examiners are tasked with reviewing patent applications to determine if they comply with the basic rules and legal requirements.<sup>271</sup> In addition to having at least a four-year degree in science or engineering, they are required to have expertise in analyzing advanced, innovative, and complex concepts related to technical disciplines.<sup>272</sup>

There are several advantages to using USPTO patent examiners in juries for patent infringement cases. First, they have the background knowledge and expertise required to adequately understand the patents and technologies being litigated.<sup>273</sup> By understanding the underlying subject matter, these “patent examiner juries” will be better positioned to accurately determine the existence of infringement. Part of a patent examiner’s duty is to apply the standards of patentability in an even, fair, unbiased, and consistent manner.<sup>274</sup> Obviously no class of person can be completely immune to bias or inconsistencies, but the training and duties of a patent examiner likely reduce the risk of these deficiencies. Juries composed of patent examiners from the USPTO will produce more consistent and predictable decisions on infringement than would a lay jury.

A second benefit to having juries composed of USPTO patent examiners is that they will be far better at performing the very first step of a jury’s patent infringement analysis is determining whether the alleged patent is indeed valid.<sup>275</sup> Patent validity is a very hard determination for a lay juror to make and, as we saw in *Apple v. Samsung*, many times the jury may improperly assume that the patent is valid and entirely skip over the validity analysis.<sup>276</sup> However, an argument could be made for the possibility of an examiner’s bias in favor of the USPTO’s prior determination of patent validity when the patent was originally granted. An examiner would like to believe that his peers at the USPTO adequately and accurately grant valid patents and as a result may more often rule in favor of validity at trial. To protect against this possibility, the most important thing is to exclude any examiner that was associated with the original granting of the patent from the jury. Even with the possible risk of bias in favor of validity, USPTO patent examiners will likely make far more educated and accurate determinations of patent validity and infringement than any lay juror would.

The major hurdle of providing adequate incentives for recruiting experts in the field is avoided by using USPTO patent examiners. Adequate compensation for

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271. *Patent Examiner Positions*, UNITED STATES PATENT AND TRADEMARK OFFICE, <http://careers.uspto.gov/Pages/PEPositions/> (last visited Sept. 26, 2015).

272. *Id.*

273. *See id.* (stating that a patent examiner needs knowledge in chemical engineering, electrical engineering, mechanical engineering, computer engineering, or computer science).

274. Sean Tu, *Luck/Unluck of the Draw: An Empirical Study of Examiner Allowance Rates*, 20 STAN. TECH. L. REV. 10, 10 (2012).

275. Bajwa, *supra* note 6, at 91.

276. *See Sandoval, supra* note 184 (discussing key statements by a member of the Apple-Samsung jury that leads to the inference that they skipped over a key aspect of the patent validity analysis).

the time of an expert from the field is ordinarily several hundred dollars per hour.<sup>277</sup> Because a jury for a patent infringement case can have anywhere between six and twelve jurors, the hourly cost for a jury composed of experts would be several thousand dollars per hour.<sup>278</sup> A jury composed of USPTO patent examiners would avoid this tremendous cost. The job duties of a patent examiner could be amended to include serving on juries for patent infringement cases. A small bonus could also be provided for each time the examiner serves as a jury member. This would give the examiners enough incentive to accept the amended changes to the job duties.

One substantial question concerning the use of USPTO patent examiners as jury members is its constitutionality.<sup>279</sup> The basis for challenging the constitutionality of this proposed solution stem from the Seventh and Fourteenth Amendments.<sup>280</sup> While the Sixth Amendment has been interpreted to require a jury of “peers” for criminal defendants, the Seventh Amendment has not been interpreted to include the qualification that jury members must be “peers” of a civil defendant.<sup>281</sup> Thus, constitutional arguments that the USPTO patent examiners cannot properly be jury members because they are not considered “peers” has little merit.

Courts have used the Equal Protection Clause of the Fourteenth Amendment to require juries to be drawn from a “fair cross section” of the community.<sup>282</sup> This requirement was recognized in an effort to ensure that “cognizable” groups are not systematically excluded from jury duty.<sup>283</sup> Federal courts have defined “cognizable” groups as those with “a common thread which runs through the group, a basic similarity in attitudes or ideas or experience which is present in the members of the group and which cannot be adequately represented if the group is excluded from the jury selection process.”<sup>284</sup>

Even though it cannot truthfully be stated that the vast population of people

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277. See Webster, *supra* note 10 (discussing different aspects of being an expert witness, including the ordinary rate).

278. See FED. R. CIV. P. 48(A) (defining the allowed number of jury members in a civil trial).

279. See Fisher, *supra* note 12 (discussing the inconsistencies in rulings on whether the use of expert juries is constitutional based on the 5<sup>th</sup> and 14<sup>th</sup> Amendments).

280. U.S. CONST. amend. VII & XIV. The Seventh Amendment provides the right to a trial by jury in civil proceedings, and the Fourteenth Amendment provides the right to due process of law before being denied life, liberty, or property. See generally Fisher, *supra* note 12 (concluding that the Seventh Amendment right to a jury is meaningless if the jury lacks the capacity to make a non-arbitrary decision and due process cannot be satisfied unless jurors have the intellectual ability to understand extremely complex patent issues); Philippe Signore, *On the Role of Juries in Patent Litigation (Part II)*, 83 J. PAT. & TRADEMARK OFF. SOC'Y 896, 899 (2001) [hereinafter Signore II].

281. Signore II, *supra* note 280, at 912.

282. Fisher, *supra* note 12, at 19; *United States v. Butera*, 420 F.2d 564, 567 (1st Cir. 1970), *overruled by Barber v. Ponte*, 772 F.2d 982 (1st Cir. 1985).

283. Signore, *supra* note 280, at 912–913.

284. *United States v. Guzman*, 337 F. Supp. 140, 143–144 (S.D.N.Y. 1972), *aff'd*, 468 F.2d 1245 (2d Cir. 1972); Signore, *supra* note 280, at 913.



who are not USPTO patent examiners have “a basic similarity in attitudes or ideas or experience,”<sup>285</sup> it seems highly unlikely that any court would rule that the entire population of non-USPTO patent examiners is not a “cognizable” group that can be excluded from jury selection. However, due to the complex nature of the underlying subject matter in many patents, as well as the complicated rules that govern patent validity, the community from which a “fair cross section”<sup>286</sup> must be drawn should be redefined. By defining the community as including only people that are in some way entrenched in the world of patents, juries composed of USPTO patent examiners would certainly represent a “fair cross section.”

The Fourteenth Amendment right to due process also works against using lay juries in patent infringement suits.<sup>287</sup> The Third Circuit has held that in a jury trial, due process is violated when jurors are incapable of understanding both the evidence and the legal rules because this incapability prevents them from making rational decisions.<sup>288</sup> Thus, in patent infringement cases involving complex underlying subject matter and complicated legal rules, a lay juror who has minimal understanding of both would not be able to make a rational decision.<sup>289</sup> While this constitutionality issue is clouded by uncertainty, it does appear that based on current precedent there is no impenetrable constitutional wall that would block the exploration of this proposed solution.

An argument that may be raised against composing juries of USPTO patent examiners is that it should really just be another form of reexamination of the patents at issue. When the AIA was implemented in 2013, it created new post grant review (PGR) proceedings that allow both patent owners and challengers to reexamine the validity of a patent.<sup>290</sup> While these PGR proceedings resemble ordinary court proceedings in that they allow for discovery, settlement, oral hearings, and protective orders, they differ in that these litigations take place in front of experienced patent law judges who sit on the Patent Trial and Appeals Board.<sup>291</sup> Another difference is that these proceedings only address issues of patent validity and not of damages.<sup>292</sup> The fact that many parties are choosing jury trials because they hope to obtain higher damages means that they will still have a preference for ordinary court proceedings. Additionally, if a party wishes to initiate a PGR process, it must do so within a 9-month window beginning on the date that

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285. *Guzman*, 337 F. Supp. at 144.

286. *Butera*, 420 F.2d at 567.

287. U.S. CONST. amend. XIV.

288. *In re Japanese Electronic Products Antitrust Litigation*, 631 F.2d 1069 (3d Cir. 1980); see also Fisher, *supra* note 12, at 10.

289. See Kondo, *supra* note 222 (stating that lay jurors were criticized for their inability to understand issues and evidence in technically complicated cases).

290. Scott McKeown & Phillippe Signore, *The Enactment of the America Invents Act Brings a Variety of Post Grant Options to U.S. Patent Law*, OBLON (Oct. 2011), <http://www.oblon.com/publications/enactment-america-invents-act-brings-variety-post-grant-options-us-patent-law>.

291. *Id.*

292. *Id.*

the disputed patent was issued.<sup>293</sup> Thus, if a party finds itself outside of the 9-month window, it will again pursue ordinary court proceedings.<sup>294</sup>

Furthermore, the costs associated with reallocating USPTO patent examiners' time would be manageable. In 2013, there were 7,928 utility patent examiners and 123 design patent examiners at the USPTO.<sup>295</sup> The number of jury trials in patent litigation held in 2013 was 63.<sup>296</sup> From 2002–2013 the median length of these jury trials was eight days.<sup>297</sup> These statistics show that both the length and the total number of jury trials, combined with the large number of USPTO patent examiners, would result in a manageable impact associated with reallocating the time of select USPTO examiners.

Lastly, if we assume that creating juries composed of USPTO patent examiners, or even of field experts, could be implemented with relatively few problems, would parties even want them? This comment has already discussed the fact that parties prefer to choose jury trials over bench trials partly because they feel that they can influence the outcome or the amount of damages.<sup>298</sup> Having jurors that adequately understand the underlying subject matter may potentially be viewed as a disadvantage to parties looking to capitalize on lay jurors' lack of expert knowledge. As a result, alterations of the jury system in patent trials may meet additional opposition from potential litigants.

## V. CONCLUSION

In August of 2010, Apple fired the first shots in what came to be known as the “smartphone wars” by serving Samsung with a complaint alleging infringement on a number of their patents.<sup>299</sup> The ensuing legal battle that quickly spread to other major markets, such as Asia and Europe,<sup>300</sup> impacted the smartphone market and the way that consumers viewed the two companies.<sup>301</sup> When the jury returned a verdict for \$1.05 billion in Apple's favor, this legal battle did far more than impact

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293. *Id.*

294. *Id.*

295. *Performance & Accountability Report: Fiscal Year 2013*, UNITED STATES PATENT AND TRADEMARK OFFICE 215, <http://www.uspto.gov/about/stratplan/ar/USPTOFY2013PAR.pdf#page=191>.

296. Owen Byrd & Brian Howard, *Lex Machina: 2013 Patent Litigation Year in Review*, LEX MACHINA 1 (2014), <https://ipccloseup.files.wordpress.com/2014/05/lexmachina-2013-patent-litigation-year-in-review-3-2.pdf>.

297. Mark A. Lemley, Jamie Kendall & Clint Martin, *Rush to Judgment? Trial Length and Outcomes in Patent Cases*, 41 AIPLA Q.J. 169, 177 (2013).

298. *See* Quinn, *supra* note 207 (analyzing data on patent cases over a 30-year period to show that parties prefer jury trials over bench trials).

299. Duncan, *supra* note 1.

300. *Id.*

301. *See generally* Techinteract in Android, Apple, iPad, *Apple vs Samsung: A Consumer Perspective*, TECHINTERACT'S TECH. BLOG (Aug. 27, 2012), <https://techinteract.wordpress.com/2012/08/27/apple-vs-samsung-a-consumer-perspective/> (discussing the impact of the Apple-Samsung trial on the average consumer).

consumer perception.<sup>302</sup> This case brought an increasingly apparent deficiency in the utilization of juries in patent infringement cases to the forefront of discussion.<sup>303</sup> Practicing attorneys and law scholars alike questioned whether something had to be done to address the use of lay juries in complex patent infringement cases.<sup>304</sup>

The *Apple v. Samsung* jury exemplified the many inadequacies of lay juries that are tasked with determining intricate issues, such as validity and infringement, on patents that cover complex subject matters that they do not understand.<sup>305</sup> The evidence shows that litigants are much more likely to choose a jury trial over bench trial.<sup>306</sup> This means that the inadequacy of a lay jury in complex patent infringement cases has become more prevalent than ever before.

The United States can begin to address its problem by implementing certain aspects of the Japanese system. Creating a law-clerk-type position, similar to a Japanese judicial research official, that is tasked with researching applicable subject matter and educating the judge,<sup>307</sup> pvp will result in more accurate rulings in *Markman* hearings as well as better jury instructions. Proposed solutions that aim to alter the jury system include abolishing the jury, drawing the jury from a pool of technical experts, and drawing the jury from existing USPTO patent examiners. Of these proposed solutions, the one that creates juries from existing USPTO patent examiners would address the major deficiencies of a lay jury while avoiding the major implementation obstacles faced by other proposed solutions. However, it is foreseeable that this proposed solution would also be met by its own constitutional challenges. While any solution will require a great deal of time and effort to overcome substantial hurdles, one thing remains clear: the current utilization of lay juries in complex patent infringement cases should be changed.

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302. Lowensohn, *supra* note 5.

303. See Sandoval, *supra* note 184 (stating that one juror led the discussion).

304. See generally Bajwa, *supra* note 6; Kondo, *supra* note 222.

305. See Sandoval, *supra* note 184 (discussing that the jurors made their decision just under three work days, despite facing complicated patent issues).

306. Quinn, *supra* note 207.

307. See *Current Status*, *supra* note 118 (describing that judicial research officials may conduct research to assist judges in addressing technical issues in IP cases).