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INTER PARTES REVIEW AS A MEANS TO IMPROVE PATENT QUALITY

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INTRODUCTION

Inter partes review (IPR) is an administrative process used to challenge the correctness of patents. It is one of the most important components of patent law today. This short study reviews the nature of IPR, its role in the patent system and current policy debates about its modification.

BACKGROUND AND RATIONALE FOR IPR

Put simply, a patent is a government-backed right, granted for a set period of time, to stop others from engaging in business using a described idea or invention. A good patent is one that reveals a breakthrough or new invention. The more inventors that create and patent novel ideas, the better for society as a whole, including consumers. However, the concept of *inter partes* review (IPR) arises out of a fundamental problem with patent law: namely, that the most valuable patents to society are not always the most valuable ones to patent holders.

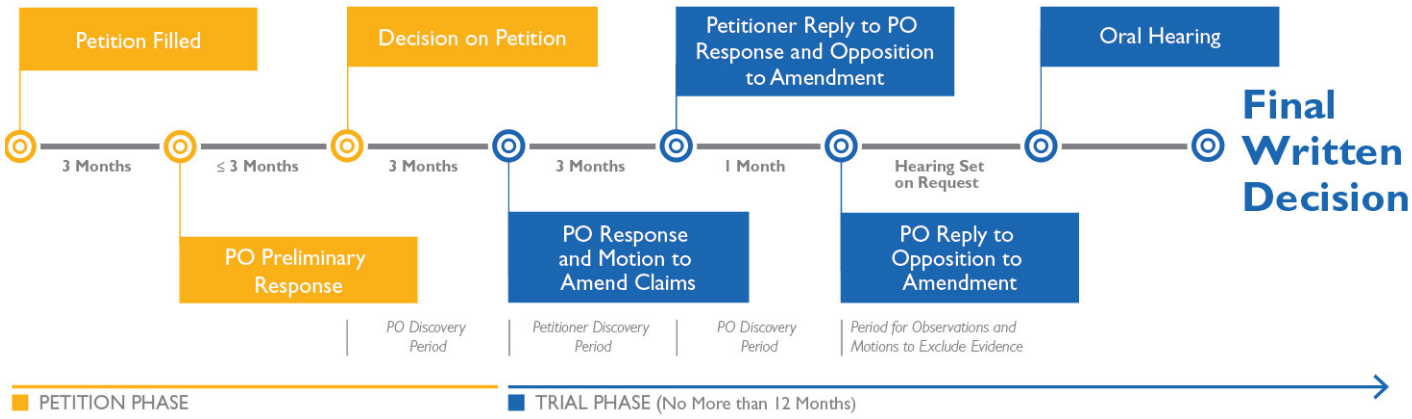
This problem arises because, from the perspective of a patent owner who hopes to collect fees from people who use his or her patented ideas, the most lucrative patent is not always one that covers a new invention, but may be based on an old idea already in common use. Thus, those who obtain patents have a strong incentive to do so on general ideas, rather than specific new inventions, in order to cast a wide net over potential infringement.

Legislators have long been concerned about the incentive for bad patents that diminish "investor confidence in patent rights."[1] Accordingly, Congress has created a series of mechanisms to challenge poor-quality patents before the U.S. Patent and Trademark Office (USPTO). Toward this end, in 1980, the system of *ex parte* re-examination was created.[2] *Inter partes* re-examination (IPX) followed in 1990.[3] However, for many years, both procedures were underused, because neither provided a truly comprehensive process to air the deficiencies of problematic patents. Combined with rapid technological development and a subsequent patent filing boom in the early 2000s, there arose widespread agreement that a new, more efficient and balanced procedure was necessary.

THE CREATION OF IPR

The past two decades have seen many attempts to reform the patent system.[4] For example, in 2001, industry groups like the American Intellectual Property Law Association called for more accessible re-examination procedures: "The time has come to allow patents to be tested on these broader grounds in a post grant proceeding in the office."[5] Later, in a 2004 hearing on a 1999 version of patent-reform legislation, Rep.

FIGURE I: TRIAL PROCEEDING TIMELINE



SOURCE: DLA Piper

Lamar Smith, R-Texas—then-chairman of the House Judiciary Committee's Subcommittee on Courts, the Internet and Intellectual Property—extended such an argument for post-grant review procedures:

> All roads should lead to enhanced patent quality. Patents of dubious probity only invite legal challenges that divert money and other resources from more productive purposes, purposes such as raising venture capital, commercializing inventions and creating jobs.[6]

Smith noted that, while the earlier *inter partes* proceeding provided an avenue to achieve the desired end, he lamented that its successful use remained "something of a white elephant to most challengers."[7] That same year, the USPTO itself submitted a report to Congress that highlighted the system's weaknesses and documented inequities in its structure that discouraged challenges. As a corrective, the report recommended reforms to reduce burdens on third-party requests for review.[8]

Finally, in 2011, the Patent Trial and Appeals Board (PTAB) was created by Section 7 of the America Invents Act (AIA).[9] PTAB comprises more than 300 patent judges and attorneys charged with implementing specialized judicial proceedings within the USPTO.[10] One of PTAB's most important duties is to handle the process of *inter partes* review (IPR), which is intended to allow third parties to challenge dubious patents more quickly and cheaply than they could through ordinary litigation.[11]

IPR exists alongside another creation of the AIA—the system of post-grant review. Together, they replace the older IPX, with the overall goal to improve the quality of patents in the United States. There are significant differences between IPR and earlier procedures to challenge patent quality, both in their formal structure and their practical outcomes. The following sections provide an overview of the various benefits and criticisms.

BENEFITS OF IPR

Speed and cost savings

As demonstrated in the trial proceeding timeline in Figure 1, a major benefit of the IPR system over the alternatives is its expeditiousness. IPR proceeds directly to a panel of three administrative patent judges, who review claims for novelty and nonobviousness.[12] The panel must render its decision within 12 months of the review's commencement,[13] with an average time from initial petition for review to final PTAB decision of roughly 18 months.[14] This timeline is significantly more condensed than both IPX, which took three to five years,[15] and litigation, which typically takes more than two.[16] IPR is also much cheaper than litigation. The median costs for an IPR proceeding are $350,000 through the appeal phase, as compared to $3.1 million to bring a comparable case to trial in district court.[17]

PTAB has also been increasingly cautious about whether to institute trials in the first place. Since the beginning of IPR, the rate at which the PTO institutes trials in response to petitions is significantly lower than it was under IPX and it has been declining: In 2016, it was at 67 percent,[18] down from 87 percent in the first year of IPR[19] and roughly 90 percent under the IPX regime.[20]

Standing

A second benefit of IPR is that it does not have the same standing requirements as district court litigation. Any interested party can petition PTAB for IPR of a patent it thinks is invalid—even if that party has not been accused of infringement.[21]

Claim construction

Claim construction, an essential first step in any challenge, is the process by which a patent owner makes clear what he or she thinks is the scope of the claims in the patent. Often, the fate of a claim depends upon how narrowly it is constructed. Overly broad claims are likely to run afoul of the novelty and nonobviousness requirements.

One of the most notable properties of IPR is the difference in how claims are interpreted. Prior court decisions compose the basis for the creation and sustenance of the type of patent claim construction employed in IPR. An important case to consider in this regard is *Markman v. Westview Instruments*, in which the Supreme Court held that claim construction was a question of law to be determined by judges.[22] The unanimous opinion argued that: "judges, not juries, are the better suited [actor] to find the acquired meaning of patent terms."[23] This is the origin of "Markman hearings," or those held to construe patent claims prior to trial in district court.

In a later decision in *Phillips v. AWH Corp.*, the U.S. Court of Appeals for the Federal Circuit held that terms in patent claims should have their meanings interpreted in the context of the patent itself.[24] Extrinsic evidence may be used—such as dictionaries, scholarly articles and expert testimony—but these must be of secondary importance to the intrinsic evidence.[25]

The most notable feature of claim construction in IPR is the use of the "broadest reasonable interpretation" (BRI) standard, rather than the "ordinary and customary meaning" standard[26] used by the district courts in claim construction. This difference has generated much discussion.[27] Central to PTAB's application of BRI is the Supreme Court's 2016 decision in *Cuozzo v. Lee*, which upheld the USPTO's ability to use BRI in patent re-examination. The court specifically cited the positive incentives this practice creates and noted that: "use of that standard encourages the applicant to draft narrowly."[28]

Since ambiguous or overly broad claims often form the basis of abusive litigation, the BRI standard calls for patent holders to clarify the scope of their patents to other inventors and the public. This facilitates the direct rejection of overly broad claims and encourages higher-quality patents in the future.

The AIA does allow for patent holders to petition to amend claims during the trial and provide substitute claims that PTAB could institute if the originals are found to be invalid. This can produce a narrower patent without completely invalidating it. In practice, however, PTAB has been reluctant to accept such petitions. Only 5 percent of motions to amend have been even partially granted.[29] However, the Federal Circuit is currently considering a case that could open up the door to more amendments.[30]

Standard of review

In *Teva v. Sandoz*, the Supreme Court ruled that district court decisions about the facts underlying claim construction are questions of fact, rather than of law, and are, therefore, entitled to significant deference from the Federal Circuit, which should not consider the issues *de novo*.[31] Instead, the Federal Circuit should only reverse the lower court's decision on those underlying facts if it clearly violates Federal Rule of Civil Procedure (FRCP) Rule 52(a).[32] The Federal Circuit has applied *Teva* to decisions from PTAB and the district courts.[33] Thus, PTAB decisions with regard to claim construction are reviewed under the *Teva* standard[34] and the Federal Circuit treats PTAB's claim construction decisions as partial questions of fact, rather than of law.

For this reason, when IPR decisions are appealed, they are usually upheld. In 2017, Christopher A. Suarez's study for the American Bar Association found that the Federal Circuit has affirmed 82 percent of IPR decisions.[35] As such, the PTAB has continually adapted to the Federal Circuit's concerns regarding rulings, thereby decreasing the chance of successful appeals moving forward. As of June 2017, the Federal Circuit had 616 pending cases from the USPTO.[36] In recent years, PTAB has instituted about 1,000 cases.[37]

Standard of proof

District courts use the "clear and convincing evidence" standard to invalidate a patent claim. This standard requires that the evidence must show that invalidity is substantially more likely than not.[38] However, IPR uses a "preponderance of the evidence" standard,[39] which requires merely that the plaintiff show that more than half the evidence points to invalidity. Incidentally, this is the default standard for civil cases.[40] It is preferred for IPR because of the limited scope of the inquiry, as well as the PTAB's expertise.

Stay of litigation pending IPR

Finally, while district court proceedings can occur alongside an IPR, judges in many districts generally stay litigation pending the outcome of the IPR proceeding.[41] A notable exception is the Eastern District of Texas—the favorite court of patent owners who file lawsuits—which had the lowest rate of IPR-based stays in the nation.[42] But this may be subject to change, due to the Supreme Court's recent decision in *TC Heartland LLC v. Kraft Foods Group Brands LLC*, in which the court ruled a patent may only be litigated either in the district where the defendant was incorporated or where the infringement occurred.[43]

This system also allows complex questions of obscure prior art to be adjudicated by expert administrative patent judges, rather than unskilled juries.

CRITICISMS OF IPR

Despite such widespread benefits, IPR is not without its critics. Some have argued that its application of different standards for claim construction and review is unwise, either because the standards do not align with existing jurisprudence or because they require parties to make a different case to district courts than to the PTAB.[44] Other notable criticisms include:

Stock price manipulation

Some alarm has been raised over the practice of shorting the stock of a firm before a petition for review of that firm's patent is filed, in order to profit from the corresponding drop in stock price. However, this concern stems largely from a single hedge fund investor who teamed up with a well-known patent assertion entity to exploit this technique.[45] Since then, investors have caught on to the pattern, so it is no longer profitable.[46] Congress has also held multiple hearings on the impact of investor assertion entities (IAE) in an effort to achieve legislative reforms to the current practice.[47]

Industry-specific criticisms

A major criticism comes from pharmaceutical groups, who worry that IPR invalidates patents overzealously, thereby allowing generics to usurp market share before the original inventor can recoup its research and development costs. Paragraph IV of the 1984 Hatch-Waxman Act sets the terms upon which a generic drug manufacturer may challenge an existing patent.[48] Critics argue that IPR could upset the balance of the Paragraph IV process and thus reduce investment in new drugs, due to greater uncertainty about whether the upfront costs can be amortized during the period of exclusivity.[49]

However, to some extent, IPR is specifically intended to upset the status quo for pharmaceutical patents. This was a legislative response to the existing industry practice of product-hopping or "evergreening," wherein a drug company makes minor improvements to its own product[50] in order to secure broader patents.[51]

Such objections are mostly limited to this particular industry and in any event, pharmaceutical patents make up a minority of petitions to the PTAB (just 11 percent through May of FY 2017).[52] Further, of those, 38 percent are denied for failure to show a reasonable likelihood of invalidation on at least one claim.[53] Additionally, proponents of IPR counter that Hatch-Waxman litigation is insufficient to weed out bad patents, because the generic challenger often has incentive to collude with the patent owner to leave the patent intact.[54]

Broader concerns

Another criticism of IPR is that the invalidation of patent claims is detrimental to the U.S. economy because it decreases the overall value of patents.[55] Such a claim is almost entirely unfounded, particularly upon review of the figures provided in its favor.[56] But even if one entertains the assertion that patents have lost some value as a result of IPR, there is no automatic correlation between a decline in price and a detrimental economic impact. A decline in patent prices is no more demonstrative of an economic loss than a decline in the price of computers.

On the contrary, proponents of IPR argue that the intended effect of the AIA is to weed out bad-quality patents, and thus prices should fall, as value is transferred from the holders of improperly granted patents back to actual innovators.

CONCLUSION

Inter partes review provides a streamlined process to challenge overly broad patents. It is a significant improvement over district court litigation and previous USPTO procedures. Although the system remains in its infancy, the PTAB's decisions have been continually affirmed by the Federal Circuit, which clearly demonstrates its success thus far as a means to increase patent quality. While it may not be perfect, many criticisms of IPR are often overstated or misguided. In fact, startups, independent inventors and even large companies have prospered because of the corresponding invalidations of poorly constructed and overly broad patents. For these reasons, calls for reform are premature.

ABOUT THE AUTHORS

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He joined R Street full time in July 2017, having previously served as an R Street tech policy intern. He was a graduate research fellow at Mercatus Center, where he worked with the tech policy team on issues like telecom, intellectual property and space policy. He has also interned with the Competitive Enterprise Institute, working mostly on telecom issues related to broadband deployment and spectrum allocation.

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Charles received his J.D. from Harvard Law School, and holds an A.B. in computer science, magna cum laude, from Harvard College.

ENDNOTES

1.1 126 Cong. Rec. 29895 (1980) (statement of House committee chairman, Robert Kastenmeier).

2. The Patent Act, 35 U.S.C. § 302 (2011).

3. 35 U.S.C. § 215(b)(2) (2010) (repealed 2011).

4. See e.g., the Innovation Act, H.R. 3309 from the 113th Congress. https://goo.gl/aCBxXk; and Joe Matal, "A Guide to the Legislative History of the America Invents Act: Parts I and II," Fed. Cir. B.J. (2011-2012). https://goo.gl/DeY72x.

5. *Patents: Improving Quality and Curing Defects*, Hearing before the Subcommittee on Courts, the Internet, and Intellectual Prop. of the H. Comm. on the Judiciary, 107th Congress, May 10, 2001, (Statement of Michael K. Kirk). https://goo.gl/ZotMZ9.

6. *Patent Quality Improvement: Post-Grant Opposition*, Hearing before the Subcommittee on Courts, the Internet, and Intellectual Prop. of the H. Comm. on the Judiciary, June 24, 2004, (Statement of Rep. Smith). https://goo.gl/nHfPhs.

7. Ibid.

8. The proposed reforms included the clearer definition of estoppel provisions, which would allow third-party petitioners to present input to USPTO even if the patent owner does not respond, and the extension of the comment period for third-party comments. "Report to Congress on Inter Partes Reexamination," USPTO, 2004. https://goo.gl/FnrvYc.

9. 35 USC § 6.

10. "Organizational Structure and Administration of the Patent Trial and Appeal Board," U.S. Patent and Trademark Office, 2015. https://goo.gl/pmxTnj.

11. After the trial, PTAB can choose to invalidate any or all of the challenged claims based on novelty and nonobviousness requirements. PTAB does not make determinations on infringement or other validity issues. Those must still be addressed through litigation. See, e.g., Colleen Chien and Christian Helmers, "Inter Partes Review and the Design of Post-Grant Patent Reviews," *Santa Clara Univ. Legal Studies Research Paper* No. 10-15, June 4, 2015, 1. https://goo.gl/H5aKps.

12. 35 USC § 311(b).

13. 35 USC § 316(a)(11).

14. Philip Swain, "The Cost-Effectiveness of PTAB Proceedings," *PTAB Blog*, Nov. 13, 2015. https://goo.gl/XEs16G.

15. Matal, 622.

16. American Intellectual Property Law Association, *Report of the Economic Survey* 2015, June 2015, p. 38. https://goo.gl/jWQPdb.

17. Ibid., 37.

18. Patent Trial and Appeal Board, *Trial Statistics: IPR, PGR, CBM*, U.S. Patent and Trademark Office, May 2017, p. 7. https://goo.gl/7vojdQ. While these figures combine those of PGR and CBM with IPR, the latter makes up the vast majority of petitions—more than 1,200 through May of FY 2017, compared to 24 and 42 for PGR and CBM, respectively.

19. Ibid.

20. Allison J. Baldwin, "Inter Partes Review and Inter Partes Reexamination: More than Just a Name Change," McDonnell Boehnen Hulbert & Berghoff LLP, Fall 2013. https://goo.gl/VhxAer.

21. 35 USC § 311(a).

22. *Markman v. Westview Instruments*, Inc. 517 U.S. 370 (1996). https://goo.gl/2omH5R.

23. Ibid.

24. *Phillips v. AWH Corp*., 415 F.3d 1303, 75 U.S.P.Q.2d 1321 (2005). https://goo.gl/QsYajY.

25. Ibid.

26. The "ordinary and customary meaning" standard refers to interpretation based on the ordinary meaning to someone with ordinary skill in the art.

27. See e.g., Julian Pymento, "Let's Be Reasonable! The Broadest Reasonable Interpretation in the PTAB," *New York University Journal of Intellectual Property and Entertainment Law* 5:2 (Spring 2016). https://goo.gl/b5R2kV.

28. *Cuozzo Speed Techs*., LLC v. Lee, 579 US ___ (2016). https://goo.gl/Xa0nwr.

29. *Patent Trial and Appeal Board Motion to Amend Study*, U.S. Patent and Trademark Office, April 30, 2016, p. 6. https://goo.gl/GF2GBC.

30. In Re: Aqua Products, Inc., No. 15-1177 (Fed. Cir. 2016). https://goo.gl/cu69tu.

31. *Teva Pharma. USA, Inc. v. Sandoz*, Inc., 574 US ___ (2015). https://goo.gl/hbyXfW.

32. Ibid, p. 4.

33. *In Re Cuozzo Speed Techs*., LLC, U.S. Court of Appeals for the Federal Circuit, (February 4, 2015). https://goo.gl/fNTft6.

34. See, e.g., Alana Canfield Mannige, The Standard of Review for Claim Construction in Inter Partes Review," *Hastings Science Technology & Law Journal* 8:2 (Summer 2016). https://goo.gl/r5ABLB.

35. Christopher A. Suarez, "Navigating Inter Partes Review Appeals in the Federal Circuit: A Statistical Review," *Landslide Magazine* 9:3 (2017), 1. https://goo.gl/ZJn5rw.

36. U.S. Court of Appeals for the Federal Circuit, *Year-to-Date Activity as of June 30*, 2017. https://goo.gl/L8zSWB.

37. *Trial Statistics*, p. 7. https://goo.gl/7vojdQ.

38. Legal Information Institute, "Clear and Convincing Evidence," Cornell Law School, 2017. https://goo.gl/7vPVRv.

39. 35 USC § 316(e).

40. Legal Information Institute, "Preponderance of the Evidence," Cornell Law School, 2017. https://goo.gl/A2y8xP.

41. See, e.g., Derek H. Swanson, *Staying Cases Pending PTAB's Decision to Institute IPR or CBM Review: A Survey of 10 Jurisdictions with the Most Patent Litigation*, McGuire Woods, July 2015. https://goo.gl/921Wg8.

42. See, e.g., Douglas B. Wentzel, "Stays Pending Inter Partes Review: Not in the Eastern District of Texas," 98 *J. Pat. & Trademark Off. Soc'y* 120 (2016), 120. https://goo.gl/k8WwpX.

43. *TC Heartland LLC v. Kraft Foods Grp. Brands LLC*, 137 S. Ct. 1517, 197 L. Ed. 2d 816 (2017).

44. See, for example, Pymento and Mannige. https://goo.gl/b5R2kV and https://goo.gl/r5ABLB.

45. See Gretchen Morgenson, "Working to Lower Drug Costs by Challenging Questionable Patents," *New York Times*, Nov. 27, 2015. https://goo.gl/JyVB2L.

46. See Daniel Fisher, "Hard Times for Patent Trolls and Challengers as Courts, Targets Fight Back," *Forbes*, March 24, 2017. https://goo.gl/N7Bkws.

47. See, e.g., W. M. Schuster, "Rent-Seeking and Inter Partes Review: An Analysis of Invalidity Assertion Entities in Patent Law," 22 *Mich. Telecomm. & Tech. L. Rev*. 271 (2016). https://goo.gl/ezHTUY.

48. Joanna Shepherd, "Disrupting the Balance: The Conflict between Hatch-Waxman and Inter Partes Review," *Emory University School of Law Legal Studies Research Paper* No. 16-419, Sept. 1, 2016, 10. https://goo.gl/DYp3JN.

49. This is the period during which the patent holder maintains exclusive rights to the particular invention covered under their patent.

50. Michael A. Carrier, "A Real-World Analysis of Pharmaceutical Settlements: The Missing Dimension of Product Hopping," 62 FLA. L. REV. 1009 (2010), 1016. https://goo.gl/xP4Lwb.

51. See, e.g., Michael A. Carrier and Steve D. Shadowen, "Product Hopping: A New Framework," 92 *Notre Dame L. Rev*. 167 (2016). https://goo.gl/UxT4DX.

52. *Trial Statistics*, p. 4. https://goo.gl/7vojdQ.

53. Ibid, p. 8; 35 USC § 315 (a) provides that the institution of an IPR requires the petitioner to show "that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition."

54. See, e.g., *FTC v. Actavis*, 133 S. Ct. 2223 (2013).

55. Richard Baker, "America Invents Act Cost the US Economy over $1 Trillion," *Patently-O* Blog, June 8, 2015, 3. https://goo.gl/tX2RQ8.

56. Baker's study assumes that every one of the 2.1 million patents currently in force is worth almost $500,000, despite the fact that the vast majority of patents go unused and have no value at all.