“We have identified your company as one that appears to be using [our] patented technology, and we are contacting you to initiate discussions regarding your need for a license.” An increasing number of companies and individual consumers have received such infringement letters, which typically conclude with a demand for a license specially calculated to persuade potential defendants to enter into a license. Because of the exorbitant expenses associated with patent litigation and the potential for a devastating adverse judgment, many companies have been coerced into entering a license, whether or not they believe they actually infringe a valid patent. Taking
of such problems with traditional federal patent litigation, Congress passed the America Invents Act in 2011. The America Invents Act created inter partes review (IPR), an alternative to federal litigation in which a party seeks to invalidate a patent in a streamlined trial-like proceeding before the Patent and Trademark Office (PTO).

IPR became available in September 2012. Since then, IPR has become so popular that it could essentially change patent litigation in the United States by creating separate forums for challenging the validity of a patent rather than its infringement. Such separate forums would parallel the structural methodology of other countries. Before the creation of IPR, patent litigation typically occurred in federal court, where a plaintiff accuses a defendant of infringing at least one of the claims of its patent. In response, a defendant may argue both that it did not infringe the specific claims of the patent and cannot base liability on invalid patents. See Patent Litigation, EDWARDS WILDMAN (2012), http://www.edwardswildman.com/files/uploads/Documents%5CFolios/US-PatentTradeSecretLit.pdf. Defendants thus try to argue that patents are invalid and unenforceable to avoid infringement liability. See id. Defendants can prove invalidity by showing the patent did not meet the necessary statutory requirements at the time the patent was issued. See id. Such requirements, including novelty and nonobviousness, are described infra note 14. Courts find a surprising number of patents to be invalid, relieving the defendant of any infringement liability. See infra note 45.


8. Id.


11. 28 U.S.C. § 1338 (2012) (stating that federal courts have jurisdiction over patent-based actions). Patent claims are “the portion of the patent document that defines the scope of the patentee’s rights.” Markman v. Westview Instruments, Inc., 517 U.S. 370, 372 (1996). For example, a patent may have a claim for “[a] chair consisting of a back, a seat, and three legs.” Jon Schuchardt, Basic Patent Law: III. How To Read a Patent, DILWORTH IP (Mar. 1, 2013), http://www.dilworthip.com/basic-patent-law-iii-how-to-read-a-patent. If someone other than the patent owner makes a chair with a back, a seat, and three legs, he or she has infringed the patent. See id. If the new chair has a back, a seat, and four legs, however, the individual has not infringed the patent. Id.

12. See supra note 11 for an example of noninfringement.
that the patent is actually invalid and thus cannot be infringed because the PTO should not have issued it due to a failure to meet the requirements for receiving a patent. For the PTO to issue a patent, it must be novel and nonobvious. These are nuanced legal doctrines, but they essentially limit patents to innovative inventions. The PTO determines if an invention is novel and nonobvious, and thus entitled to a patent, by examining prior art. Prior art is a legal term for references that disclose elements of the invention. During both traditional patent litigation and IPR, the party accused of infringement typically searches for prior art that the PTO may not have found, and the party then uses this prior art to argue patent invalidity. While Congress created IPR to shift some invalidity analysis away from federal courts, the United States does not have completely separate invalidity and infringement forums like other countries. IPR only addresses specific aspects of invalidity, and after IPR concludes, either a plaintiff or defendant may continue litigation in federal court.

13. See supra note 5. For an example of a case where the defendant argued both that it did not infringe the claims of the patent (its product was different than the patented invention) and that the patent was invalid (the PTO should not have issued it and it was unenforceable), see SCA Hygiene Products Aktiebolag v. First Quality Baby Products, LLC, 767 F.3d 1339, 1339 (Fed. Cir. 2014), reh'g en banc granted, opinion vacated, No. 2013-1564, 2014 WL 7460970 (Fed. Cir. Dec. 30, 2014).

14. 35 U.S.C. §§ 102, 103 (2012). Continuing with the chair example from note 11, a basic chair today would clearly not be novel because all of its elements are publicly known. A publication or patent showing a device with a back, a seat, and three legs would prevent someone from receiving a patent on the chair. If an invention is not described exactly in these publications, it still may be unpatentable because it could be considered obvious. For example, assuming a cup holder in its exact form did not exist, the PTO could say that such an invention is obvious. The PTO would note that a chair and cup holder existed separately, and it would have been obvious to combine them. The PTO tries to reward inventions that promote progress, and inventions that are not novel or are obvious do not accomplish this goal. See infra note 15.

15. See generally U.S. CONST. art. I, § 8, cl. 8 (granting an intellectual property system for promoting science and the arts).


17. Id.

18. See supra note 13 and accompanying text; infra text accompanying note 69.

19. See Patent Invalidity Proceedings, supra note 10, at 4 ("According to Germany's bifurcated patent litigation system, the infringement of a patent is dealt with by specialized District Courts, whereas the validity of a patent is reviewed in separate proceedings by a single federal court, the Federal Patent Court . . . .").

20. See Jennifer C. Bailey, Lessons Learned from the First Year of Inter
To prevent complete duplication of IPR, however, Congress drafted an estoppel provision. Per 35 U.S.C. § 315(e), after IPR, an IPR petitioner is estopped in a future forum from raising “any ground that [was] . . . raised or reasonably could have [been] raised” during the IPR proceeding. Unfortunately, this estoppel provision is ambiguous.

This Note addresses a question federal courts will likely have to consider: What is the appropriate estoppel burden on IPR petitioners that still effectuates Congress’s intent for IPR to be an efficient alternative to traditional federal litigation for nullifying invalid patents? Part I introduces IPR. Part II explains the two possible interpretations of IPR estoppel and discusses their tradeoffs. Part III argues it is fairest for judges to interpret IPR estoppel broadly, precluding nearly all evidence the petitioner could have used in IPR. Still, the broadest interpretation is disproportionately burdensome on petitioners, so this Note also provides recommendations for better integrating IPR into a fair and effective patent litigation system.

I. INTER PARTES REVIEW: THE NEW PREMIER PROCEEDING FOR INVALIDATING A PATENT

Since becoming available in September 2012, IPR has been more popular than expected. By its definition, IPR is attractive to defendants in patent litigation and other parties seeking to invalidate low-quality and potentially threatening patents.
IPR is a proceeding for a party to “request to cancel as unpatentable 1 or more claims of a patent . . . under section 102 or 103 and only on the basis of prior art consisting of patents or printed publications.” Practically, then, if IPR judges determine claims of a patent or the entire patent to be invalid, the patent owner can no longer sue for infringement of those claims. IPR effectively allows a defendant to switch from a defensive position to an offensive one.

This Part gives an overview of the IPR process and explains why it will be an important component of patent litigation. Section A discusses the differences between IPR and its unpopular predecessor, inter partes reexamination (IPRex), and accompanying legislative history. Section B discusses the mechanics of IPR, including a judicially created and potentially troubling redundancy rule. Finally, Section C concludes the overview of IPR by discussing the estoppel standards of both proceedings.

A. INTER PARTES REVIEW COMPARED TO INTER PARTES REEXAMINATION

As noted, IPR has been incredibly popular to date, while its predecessor, IPRex was not nearly as successful due to its many flaws. Congress sought to rectify these deficiencies when creating IPR. IPR incorporates more adversarial aspects like oral argument and is the most trial-like proceeding that has ever existed for challenging patents before an administrative agency. IPR occurs before the newly created Patent Trial
and Appeal Board (PTAB). The PTAB is an administrative court, comprised of judges familiar with scientific and patent issues. In contrast, three patent examiners completed each IPRex in a format similar to applying for a patent. More important than procedural changes, however, Congress limited IPR’s timeframe to twelve months because IPRex could take longer than a patent case in federal court. In fact, IPRex took three years on average. Congress intended IPR to be a “quick and cost effective alternative[] to litigation” in the civil courts.

Next, it is less likely for the PTO to authorize IPR than IPRex due to the new “heightened institution standard.” Under the old standard, the PTO would authorize IPRex for any “substantial new question of patentability.” Under the IPR standard, a petitioner must show there is a “reasonable likelihood” it will succeed with respect to at least one challenged claim. Legislators intended this new standard to be more difficult to meet, and one PTO representative explicitly stated that the new standard “allows for the exercise of discre-

32. Id. (requiring administrative patent judges to have “competent legal knowledge and scientific ability”).
33. In IPRex, a patent owner worked with examiners to try to persuade them that the patent was still valid over new prior art. See Eric J. Rogers, Ten Years of Inter Partes Patent Reexamination Appeals: An Empirical View, 29 SANTA CLARA COMPUTER & HIGH TECH. L.J. 305, 312 (2013). The patent owner and examiners communicated back and forth to amend claims so as to prevent invalidation. See id. at 315. Senator Jon Kyl explained the change from IPRex to IPR as a shift from an examinational proceeding to an adjudicative proceeding. 157 CONG. REC. S1375–76 (daily ed. Mar. 8, 2011) (statement of Sen. Jon Kyl).
38. Id.
tion but encompasses a 50/50 chance . . . of prevailing.” 39 Under the old standard, the PTO instituted approximately 95% of petitions. 40 Yet, even under the new standard, the PTO has instituted approximately 80% of petitions as of July 10, 2014. 41 Still, the ultimate impact of the heightened institution standard remains to be seen.

B. THE MECHANICS OF INTER PARTES REVIEW

When a petitioner decides to file for IPR, it submits a petition to the PTO. 42 The PTO has promulgated many rules for submitting a petition. 43 Petitions for IPR must identify each challenged claim and show how prior art including patents and printed publications invalidate the claims under 35 U.S.C. §§ 102 or 103 which require valid patents to be novel and non-obvious. 44 Challenges based on obviousness and novelty are important to patent owners because they are the top two reasons why claims are invalidated in litigation. 45

Petitioners must describe these challenges within the petition’s sixty-page limit. 46 The petition is incredibly important because the petitioner cannot advance different arguments later in the proceeding. 47 After the petitioner submits its petition for IPR, the patent owner has three months to respond and argue that the PTO should not grant an IPR. 48 The PTO must then decide whether to institute an IPR within three months after

39. Id.
42. Id. (noting that only third parties, not patent owners themselves, may petition for IPR).
44. Id. § 42.104.
45. See John R. Allison & Mark A. Lemley, Empirical Evidence on the Validity of Litigated Patents, 26 Am. Intell. Prop. L. Ass’n Q.J. 185, 209 tbl.2 (1998) (noting that in federal cases where anticipation (no novelty) was an affirmative defense, courts invalidated 40.7% of patents, and where obviousness was an affirmative defense, courts invalidated 36.3% of patents).
46. 37 C.F.R. § 42.24(a)(i); Iancu et al., supra note 30, at 567 tbl.1.
48. 37 C.F.R. § 42.107 (“The patent owner may file a preliminary response to the petition.” (emphasis added)).
the patent owner responds or by the last day the patent owner may respond. The PTO will only grant IPR on claims that it believes the challenger has a “reasonable likelihood” of invalidating. Once the PTO makes its decision, the PTAB has twelve months to complete the IPR.

When the PTAB begins IPR, the patent owner has three months to conduct discovery, including deposing any experts the petitioner used in preparing its petition. The patent owner then files its first substantive motion, arguing its claims are valid. Next, the petitioner takes discovery and files counterarguments. Discovery and arguments continue to alternate until the oral hearing.

IPR has been available for two years, and so far the PTO and PTAB have met their time constraints. The PTAB has met its constraints by limiting discovery and granting petitioners’ arguments for fewer than half of proposed claims. While the PTAB will reject arguments on claims it believes do not meet the heightened institution standard, the PTAB has also begun rejecting arguments on “cumulative/redundancy” grounds. In Liberty Mutual Insurance Co. v. Progressive Casualty Insurance Co., the petitioner Liberty Mutual raised 422 grounds for rejection of the twenty claims of the patent based on ten prior art references. The PTAB rejected many of these

50. Id. § 314(a).
51. Id. § 316(a)(11) (giving the Director of the PTO an additional six months for good cause).
52. Iancu et al., supra note 30, at 553.
53. Id. at 556.
54. Id.
55. Id. at 556–58.
56. See Doody, supra note 7 (noting the PTO has a maximum of six months to determine whether to initiate trial, and it has made this decision in 5.1 months on average). On November 13, 2013, the PTAB released its first IPR final decision on the merits, well ahead of the one-year deadline, which would have been January 9, 2014. Garmin Int’l, Inc. v. Cuozzo Speed Techs. LLC, No. IPR-2012-00001, 108 U.S.P.Q.2d 1852, 1854 (P.T.A.B. Nov. 13, 2013).
58. See Doody, supra note 7 (finding that the PTO only grants trial for about 32.8% of claims).
60. Id. at *1.
grounds for being redundant.\textsuperscript{61} The PTAB identified two examples of redundancy: (1) where multiple prior art references show the same rejection; and (2) where a petitioner uses more prior art references than necessary in combination to show obviousness.\textsuperscript{62} The PTAB ordered Liberty Mutual to reduce its arguments for rejection, even though these arguments may have met the standard necessary to institute trial.\textsuperscript{63} In other cases, however, the PTAB chose grounds for rejection itself when it determined arguments were redundant.\textsuperscript{64} The PTAB argued that 37 C.F.R. § 42.1(b), which requires “the just, speedy, and inexpensive resolution of every proceeding,” gives it the authority to deny arguments on redundancy grounds.\textsuperscript{65}

At the end of IPR, the PTAB will issue a claim construction.\textsuperscript{66} A claim construction defines the scope and meaning of a claim.\textsuperscript{67} For example, in one IPR decision, the PTAB construed the claim language “engine off” to mean “engine not running.”\textsuperscript{68} The petitioner argued for a slightly different definition because it believed it had prior art to show these claims were anticipated (not novel) and thus invalid under its proposed definition.\textsuperscript{69} As with all types of patent litigation, claim construction is an important part of the process for determining if prior art invalidates a patent.

C. ESTOPPEL PROVISIONS OF \textit{INTER PARTES} REVIEW AND \textit{INTER PARTES} REEXAMINATION

Once the PTAB releases its claim construction, it then determines whether the patent’s claims are invalid.\textsuperscript{70} If the PTAB determines none or only some of the claims are invalid, litiga-

\textsuperscript{61} Id. at *2.
\textsuperscript{62} Id.
\textsuperscript{63} Id. at *4, 6–9.
\textsuperscript{65} Liberty Mut., 2012 WL 9494791, at *1 (quoting 37 C.F.R. § 42.1(b) (2014)).
\textsuperscript{67} Renishaw PLC v. Marposs Societa’ Per Azioni, 158 F.3d 1243, 1247–48 (Fed. Cir. 1998).
\textsuperscript{69} See id. at 1447–49.
\textsuperscript{70} See id. at 1448.
tion may continue in another forum. Petitioners thus have two opportunities for a court to declare a patent invalid. However, this opportunity is tempered by IPR’s estoppel provision. This new provision, 35 U.S.C. § 315(e)(2), states:

The petitioner in an inter partes review . . . that results in a final written decision . . . may not assert either in a civil action . . . or in a proceeding before the International Trade Commission . . . that the claim is invalid on any ground that the petitioner raised or reasonably could have raised during that inter partes review.

In contrast, the previous estoppel provision for IPRex was:

A third-party requester whose request for an inter partes reexamination results in an order . . . is estopped from asserting at a later time, in any civil action . . . any ground which the third-party requester raised or could have raised . . . . This subsection does not prevent the assertion of invalidity based on newly discovered prior art unavailable to the third-party requester and the Patent and Trademark Office at the time of the inter partes reexamination proceedings.

A comparison of the two statutes shows a simultaneous strengthening and weakening of IPR’s estoppel provisions. Specifically, IPR estoppel applies not only to federal court proceedings, but also proceedings before the International Trade Commission. Furthermore, the estoppel provision of IPRex had an escape clause allowing parties to avoid estoppel upon the discovery of newly found prior art, while the IPR statute contains no such clause. Still, Congress softened the effects of estoppel after IPR because the new statute replaces “could have raised” with “reasonably could have raised.”

Indeed, Congress recognized the need to draft the estoppel provision to prevent parties from asserting duplicative and wasteful arguments in future forums, yet also the need to encourage parties to use IPR while maintaining rights for future litigation. Early in the lengthy history of the America Invents Act, the IPR estoppel only applied to arguments actually

71. See supra Introduction.
72. See Bailey, supra note 20.
77. See 157 CONG. REC. S1375 (daily ed. Mar. 8, 2011) (statement of Sen. Jon Kyl); see also infra text accompanying notes 83–84.
While businesses and professional patent law associations supported this provision, patent owners and some congressmen instead argued for stronger estoppel provisions. Congress compromised and noted the importance of softening the “could have raised” provision. Senator Kyl noted courts could interpret the “could have raised” provision as estopping petitioners “from raising any issue that it would have been physically possible to raise . . . even if only a scorched-earth search around the world would have uncovered the prior art in question.” He then defined the “reasonably could have raised” provision as preventing “only . . . that prior art which a skilled searcher conducting a diligent search reasonably could have been expected to discover.”

To date, practitioners have little guidance for determining what Senator Kyl considers prior art a skilled searcher should reasonably discover. While the PTAB has issued over 100 IPR written decisions, no federal litigation subsequent to IPR has addressed the question of estoppel. Further, “the Federal Cir-

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79. See Matal, supra note 34, at 618.
82. America Invents Act: Hearing on H.R. 1249 Before the Subcomm. on Intellectual Prop., Competition, and the Internet of the H. Comm. on the Judiciary, 112th Cong. 52 (2011) (statement of Rep. Zoe Lofgren, Member, Subcomm. on Intellectual Prop., Competition, and the Internet) (“[T]here is significant disincentive to bring an action because in the litigation, anything that could have raised can’t be used.”).
84. Id.
85. See King & Wolfson, supra note 22.
cuit has . . . never addressed the scope of estoppel after an inter partes reexamination has . . . concluded.” Thus, there is no guidance from the Federal Circuit, the patent appeals court, regarding the preclusive effect of the estoppel provision.

However, there are two reasons federal courts will soon need to address estoppel issues. First, IPR estoppel attaches immediately upon the PTAB’s written decision, whereas IPRex estoppel did not attach until all appeals were exhausted. Because appeals from IPRex were typically not exhausted until federal litigation ended, federal courts rarely had the opportunity to address estoppel. Since IPR is shorter and estoppel attaches immediately, federal courts will likely soon find themselves facing estoppel questions. Secondly, petitioners can advance far fewer arguments in IPR due to the sixty-page limit, the heightened institution standard, and the PTAB’s denial on redundant grounds. In cases where the PTAB invalidates none or only some of the claims, the petitioner will likely have many arguments it wishes to bring in federal courts, and what evidence and arguments are estopped will be a contentious issue.

II. THE OPEN QUESTION OF INTER PARTES REVIEW ESTOPPEL

When courts eventually interpret the IPR estoppel provision, they will need to effectuate the legislative intent by considering Congress’s ultimate goal of making IPR a speedy and inexpensive alternative to typical federal patent litigation.

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89. See Bailey, supra note 20, at 4.
90. Id.
91. See King & Wolfson, supra note 22, at 3.
92. See Bailey, supra note 20, at 2–4.
93. Id. at 4–5; King & Wolfson, supra note 22, at 2–3.
The proper interpretation of IPR estoppel thus rests on balancing the burdens between the petitioner and patent owner to ensure the use of IPR. A proper interpretation will continue to encourage petitioners to use IPR without fear of undue repercussions from an imperfect proceeding, while simultaneously protecting patent owners’ legitimate rights.

Before examining possible interpretations of the IPR estoppel statute, it is necessary to consider the benefits and burdens for parties in a typical IPR. Section A discusses these benefits and burdens. Section B introduces the two possible interpretations for the IPR estoppel provision: a broad and strict interpretation, and a narrower and more forgiving interpretation. Section B further examines the tradeoffs of both interpretations.

A. TYPICAL BENEFITS AND BURDENS FOR PARTIES IN INTER PARTES REVIEW

Subsection 1 describes the benefits and burdens IPR petitioners must consider before determining whether IPR is the appropriate forum for potential patent invalidation. Subsection 2 describes the risks and potential benefits for patent owners in IPR. The parties’ respective benefits and burdens are important to take into account when determining the proper IPR estoppel interpretation.

1. Benefits and Burdens for the IPR Petitioner

The petitioner has the most to gain from IPR because it could be successful in convincing the PTAB to invalidate some claims or even the entire patent. If the PTAB invalidates all of the patent owner’s claims, the petitioner will be completely free from infringement liability. There are additional persuasive reasons for petitioners to invoke IPR. Most notably, the IPR process is much shorter than a typical federal trial. This shortened timeframe saves petitioners attorney fees and allows petitioners to return to normal business more quickly.

District courts are also more likely to grant a stay of litiga-

95. See supra Introduction.
98. Id.
tion pending IPR than they were for IPRex. Because the statute requires IPR to last no longer than twelve months, district courts are more comfortable granting a stay, whereas IPRex could last for years and staying federal litigation could cause a patent owner to indefinitely postpone its case. Indeed, as of October 2014, district courts stayed corresponding litigation pending IPR litigation in approximately seventy percent of cases, and it is likely this percentage will rise. When a district court stays litigation, this saves the petitioner money because it no longer has to fund two simultaneous legal battles, and a successful IPR may cancel subsequent infringement litigation. Patent practitioners thus predict the overall cost of IPR will be $300,000 to $800,000, making IPR cost a tenth of a typical patent litigation suit.

While attorneys were slow to embrace IPRex, these factors have made IPR popular, with the number of IPRs filed in the first year of its availability exceeding the PTO’s expectations by five percent. Further, between the beginning of IPR availability in September 2012 and August 7, 2014, petitioners filed more than 1500 petitions.

Despite these advantages, petitioners face new disadvantages. Whereas petitioners could submit petitions for IPRex comprising hundreds of pages, petitions for IPR may only be

99. A stay of litigation means that the district court places the case on hold until IPR is complete. See Meaghan H. Kent et al., Stays of Litigation Pending IPR Are Likely To Increase, LAW360 (June 26, 2014, 10:09 AM ET), http://www.law360.com/articles/540456/stays-of-litigation-pending-iper-are-likely-to-increase.


103. Lagatta & Lewis, supra note 102.

104. Id.

105. Doody, supra note 7.

106. See id.; see also Whelan & Attwell, supra note 86, at 5.
sixty pages, double-spaced, and size fourteen font. This page limit compounds the redundancy problem described above because petitioners might lack space to fully explain how each prior art is not redundant. Petitioners must also spend part of this valuable space offering a claim construction, something they were not required to do in IPRex.

2. Benefits and Burdens for the IPR Patent Owner

While IPR places a patent owner’s intellectual property rights in danger, there are some factors in IPR that favor patent owners. For example, unlike petitioners, patent owners do not have to offer a claim construction. This is a major benefit for patent owners because it is theoretically possible for them to complete an entire IPR without offering a proposed claim construction and thus avoid unanticipated future claim narrowing. IPR also offers other procedural benefits for patent owners. After the petitioner files for IPR, the patent owner can argue both that IPR is inappropriate on the merits of the challenged claims and that the petitioner’s arguments are redundant. Theoretically then, the patent owner could reduce ten of the petitioner’s arguments to a single argument. After the PTO grants review, IPR discovery rules arguably favor patent owners.

Despite these advantages, the purpose of IPR is intrinsically adverse to the best interests of the patent owner. Congress created IPR to make it easier for petitioners to invalidate patents, and to date, Congress’s goal is being realized. As of March 2014, “the overwhelming majority of cases have seen all of the reviewed claims canceled.” Further, between the issuance of the first IPR final decision in November 2013 and February 19, 2014, the PTAB did not uphold a single claim. The-
se statistics led the former chief judge of the Federal Circuit to call the PTAB “death squads.”¹¹⁵ Some practitioners believe these early statistics are misleading, however. Specifically, some argue that the PTAB overwhelmingly invalidated patents in early cases because parties only petitioned clearly invalid patents when IPR was introduced.¹¹⁶ In support of that argument, the PTAB chief judge noted the number of claims surviving IPR is rising.¹¹⁷

Whether or not the PTAB is a “death squad,” many aspects of IPR are problematic for patent owners. Specifically, the PTAB is more likely to invalidate claims than federal courts based on the PTAB’s claim construction standard, the burden of proof needed for invalidity, and the specialized nature of the court.¹¹⁸ First, the PTAB reads claims more broadly than district courts do, making them more susceptible to invalidation under nonobviousness or novelty requirements.¹¹⁹ Next, unlike federal courts, the PTAB does not afford patents a presumption of validity.¹²⁰ Thus, petitioners need only show invalidity by a preponderance of the evidence rather than by clear and convincing evidence.¹²¹

Further, the PTAB is more likely to invalidate claims than a district court would due to its specialized nature.¹²² At least one patent practitioner argues the PTAB is more likely to find claims invalid because its judges have technical backgrounds and patent experience which gives them a greater ability to combine multiple prior art references and find claims to be ob-

¹¹⁵. Id.
¹¹⁷. Id.
¹²⁰. Id.
¹²¹. Id.
vious.\textsuperscript{123} In contrast, district court judges and juries with less experience are less likely to combine three or four prior art references to find a claim obvious and invalid.\textsuperscript{124} Because of the potential for different outcomes in IPR and federal courts, many practitioners are interested in predicting how estoppel from IPR will affect federal litigation.

B. POSSIBLE INTERPRETATIONS OF \textit{INTER PARTES REVIEW} ESTOPPEL

There are two likely interpretations for the IPR estoppel provision. First, there is a broad interpretation in which courts estop parties from using any and all printed publications and patents to challenge the validity of a patent in federal court or the International Trade Commission on novel and nonobvious grounds.\textsuperscript{125} Proponents of this interpretation argue a petitioner reasonably could have raised any printed publication or patent in its petition, and thus a court should apply the estoppel provision broadly.\textsuperscript{126} Thus, if a petitioner did not discover “a university research paper in a library in Norway” in time for IPR, for example, the petitioner would never be able to use this reference because it could have been reasonably located.\textsuperscript{127}

A second interpretation hinges on the term “reasonably.” Under this narrower interpretation, courts would estop some, but not all, patents and printed publications to invalidate a patent on novel or nonobvious grounds.\textsuperscript{128} There are many types of evidence and arguments courts could allow in. For example, courts could allow petitioners to continue to raise arguments they included in their petitions, but were “not part of the review authorized by the” PTAB due to the heightened institution standard or redundancy findings.\textsuperscript{129} In these cases, since the PTAB prevented the petitioner from bringing its arguments in

\begin{footnotesize}
\begin{enumerate}
  \item \textsuperscript{123} \textit{Id.}
  \item \textsuperscript{124} \textit{Id.}
  \item \textsuperscript{126} \textit{See} Milone, \textit{supra} note 125.
  \item \textsuperscript{127} \textit{Cf. id.} (describing how such a paper invalidated an NPE’s patent in IPRex).
  \item \textsuperscript{128} \textit{See} Letter from IBM Corp. to Lead Judge Michael Tierney, \textit{supra} note 125, at 5.
  \item \textsuperscript{129} \textit{See id.; see also} Iancu et al., \textit{supra} note 30, at 551 n.62.
\end{enumerate}
\end{footnotesize}
trial, the petitioner could not reasonably have raised its arguments, and courts would not apply the estoppel provision.

Subsection 1 describes considerations of the first interpretation, and Subsection 2 describes considerations of the second interpretation.

1. Considerations of a Broad Interpretation of Estoppel

Courts will need to consider statutory interpretation principles when determining which IPR estoppel interpretation to apply. Specifically, courts must analyze the plain language of the IPR provision, accompanying legislative history, and policy considerations of each interpretation to effectuate Congress’s intent in making IPR a popular alternative to federal litigation.\(^{130}\)

a. Statutory Support for a Broad Interpretation of Estoppel

Statutory interpretation could support a broad interpretation of estoppel and prohibit defendants from using any and all printed publications and patents to challenge the validity of a patent in a future forum on novel and nonobvious grounds. If a court construes “reasonably” broadly they will likely apply a broad interpretation of estoppel, as the more one expects a petitioner to reasonably argue, the more that is actually estopped. Further, a plain meaning interpretation could support a broad estoppel interpretation because the IPR estoppel statute does not contain an escape clause preventing estoppel of these arguments like the IPRex estoppel statute did.\(^{131}\)

b. Positive Policy Effects of a Broad Estoppel Interpretation

Further, there are many positive policy effects from interpreting IPR estoppel broadly. A broad interpretation of IPR estoppel is best for patent owners and the federal court system. First, a broad estoppel interpretation is fairest for the patent owner. As discussed, patent owners are most at risk in IPR, and once the PTAB invalidates the patent owner’s patent, it does not have a second chance to get the patent reinstated.\(^{132}\) Thus, the petitioner should not have a full second chance to in-

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validate the patent, even on evidence not fully examined during trial by the PTAB. A patent owner would further argue that IPR is simply a high risk, high reward process for the petitioner. Indeed, petitioners voluntarily assume the risk of IPR, and since they could forego the risk and challenge the patent in federal court, it is appropriate to subject them to more stringent restrictions meant to balance burdens between parties.  

Secondly, a broader estoppel interpretation is better for the judicial system because it reduces redundant arguments and promotes judicial efficiency. Emphasis on preserving judicial resources is especially important in the patent litigation system because patents may be litigated in so many forums including federal courts, the PTO, and the International Trade Commission. Indeed, as one magistrate judge from the Northern District of California stated, it is difficult “to identify even a single circumstance outside the patent world where such redundancies are not only permitted, but invited.” A broad estoppel requirement thus places patent litigation more in line with other types of civil litigation.

While petitioners may argue broad estoppel is unfair because the PTAB ultimately rejects many of the arguments they raise in petitions as redundant, it is reasonable to expect petitioners to bring forth only their best arguments, as they would to a jury considering the same issues. Further, the PTAB is more likely to invalidate claims than federal courts because of IPR’s unique procedural aspects, so it would be inefficient to expect district court judges to consider issues the

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133. See Doody, supra note 7.
135. See Doody, supra note 7.
139. See supra Part II.A.
PTAB denied, even when they were only denied for being redundant or failing to meet the heightened institution standard. Lastly, a bright line rule preventing the use of any printed publications for invalidating the patent based on novel and nonobvious requirements is better for the judicial system because it leads to predictability for the parties and is an easier standard for judges to apply.140

c. Negative Policy Effects of a Broad Estoppel Interpretation

While there are many reasons a stricter estoppel interpretation benefits patent owners and courts, there are several situations that demonstrate the disparate effect this interpretation has on petitioners.

The most classic example of a disparate effect on petitioners occurs when a petitioner challenges twenty claims based on a large number of prior art references, and the PTAB institutes IPR on only one claim based on one prior art reference. Then, the IPR petitioner would be unable to argue the other nineteen claims are invalid in a future forum based on novelty and nonobvious arguments. In that case, the petitioner may have rather had its petition completely denied so it could start over in another forum because when the PTAB denies IPR, estoppel does not attach.141

Additionally, some procedural rules of IPR make a broad estoppel interpretation disadvantageous for petitioners. First, a defendant must petition for IPR within a year of receiving notice of an infringement lawsuit against it.142 If the defendant does not submit a petition within a year, it can never file for IPR on that patent.143 In many cases, one year is much too short for the defendant to mount its defense to infringement liability while creating an offensive position by petitioning for IPR. As soon as it receives notice of the suit, the defendant must draft


143. Id.
its motion to stay federal litigation pending IPR, because if litigation is in the early stages, this weighs in favor for staying litigation.\textsuperscript{144} Next, as the defendant prepares its petition for IPR it may not know which claims to challenge because it may not even know which claims a plaintiff is asserting. While \textit{Twombly} and \textit{Iqbal} require notice pleading,\textsuperscript{145} Form 18 of the Federal Rules of Civil Procedure provides the facts a plaintiff needs to adequately plead infringement, and this form does not require stating the allegedly infringing claims.\textsuperscript{146} The defendant may thus be left in the dark while trying to find every possible invalidating patent and printed publication, analyze this prior art, obtain expert testimony, craft arguments, and draft its sixty-page petition with hopes the PTO will find its arguments meet the heightened institution standard and are not redundant.\textsuperscript{147}

Another IPR procedure which detrimentally affects the petitioner regarding estoppel is the claim construction process which differs markedly from federal litigation. In district court, the parties participate in a \textit{Markman} hearing where a judge rules on the breadth of the claims.\textsuperscript{148} The \textit{Markman} hearing occurs after some, but not all, discovery and is before the jury trial on infringement and invalidity.\textsuperscript{149} Practically, this means patent challengers have a greater opportunity to develop their arguments for the ultimate ruling on invalidity since the judge construes the claims earlier.

In contrast, petitioners are at a disadvantage regarding claim construction in IPR. For example, a petitioner may challenge claim 1 with Prior Art A and B, focusing its limited space for arguments on Prior Art A because it believes the PTAB will likely construe claim 1 in a certain manner. The PTAB may deny Prior Art B on redundancy grounds. Then, at the end of IPR the PTAB may issue a claim construction that construes claim 1 differently than the petitioner expected. It may be that Prior Art B would have had a better chance of invalidating claim 1.

\begin{footnotesize}
\begin{enumerate}
\item[146.] The Federal Circuit has noted that if “any conflict exists between \textit{Twombly} (and its progeny) and the Forms regarding pleadings requirements, the Forms control.” K-Tech Telecomms., Inc. v. Time Warner Cable, Inc., 714 F.3d 1277, 1283–84, 1287 (Fed. Cir. 2013).
\item[147.] See supra Part I.B.
\item[148.] Supra Part I.B.
\item[149.] Supra Part I.B.
\end{enumerate}
\end{footnotesize}
Now, however, the PTAB’s claim construction is persuasive to district courts and the petitioner cannot use Prior Art B, even though this reference was dismissed simply for being redundant when the presumptions were different. Therefore, because judges construe claims at the end of the process, petitioners face an uphill battle in IPR.\footnote{150. See supra Part I.C. (noting judges also construe claims at the end of litigation in the International Trade Commission which disadvantages patent challengers).}

Overall, considering the limited number of arguments petitioners can make in IPR due to short page limits, denial on redundant grounds, and the heightened institution standard, a broad estoppel requirement may be problematic considering the current patent litigation landscape. Specifically, the PTO receives a burdensome number of patent applications every year, and while it tries to make headway in this backlog, it unfortunately grants patents that it should not have issued.\footnote{151. Mike Masnick, New Study: USPTO Drastically Lowered Its Standards in Approving Patents To Reduce Backlog, TECHDIRT (Apr. 9, 2013, 8:24 AM), http://www.techdirt.com/blog/innovation/articles/20130409/08244222623/new-study-uspto-drastically-lowered-its-standards-approving-patents-to-reduce-backlog.shtml.} Between 2007 and 2011, district courts only fully upheld fourteen percent of challenged patents.\footnote{152. ROBERT SMYTH, MORGAN LEWIS, WHITE PAPER REPORT: UNITED STATES PATENT INVALIDITY STUDY (Sept. 2012), https://www.morganlewis.com/pubs/Smyth_USPatentInvalidity_Sept12.pdf.} A broader estoppel interpretation will thus lead to fewer arguments a defendant can use to challenge patents in district court, and courts may invalidate fewer low-quality patents. And since lower quality patents lead to more unnecessary and potentially abusive litigation, true innovators will face onerous legal costs and have less incentive to innovate, defeating the purpose of the intellectual property clause of the Constitution.\footnote{153. See Julie Samuels, GAO Study Confirms the Obvious: Bad Patents Lead to Trolls, ELEC. FRONTIER FOUND. (Aug. 22, 2013), https://www.eff.org/deeplinks/2013/08/gao-study-confirms-obvious-bad-patents-lead-trolls.}

2. Considerations of a Narrower Interpretation of Estoppel

Proponents of a narrower estoppel interpretation may point to the above deficiencies when advocating for a more flexible interpretation of estoppel. This Subsection outlines statu-
tory support for a narrow interpretation of estoppel and provides positive and negative policy effects of a narrow interpretation. Certainly, some negative effects of a broad interpretation of estoppel lend themselves to positive effects of a narrow interpretation of estoppel, so this Subsection seeks to introduce only new considerations.

a. Statutory Support for a Narrower Interpretation of Estoppel

Statutory interpretation could also support a narrower interpretation of estoppel. A court may determine the term “reasonably” to be ambiguous. When a court determines the statute is ambiguous, it looks to the legislative history for guidance. As noted above, Senator Kyl supported a narrower and more forgiving estoppel provision. Additionally, judges could interpret “reasonably” to differentiate between types of evidence. For example, courts could refuse to estop evidence deliberately hidden by the patent owner.

b. Positive Policy Effects of a Narrower Estoppel Interpretation

Petitioners likely desire a narrower interpretation of estoppel. Under a narrower interpretation of estoppel, petitioners could raise arguments in district court they did not have the opportunity to fully argue before the PTAB. Indeed, petitioners spend time and money on these arguments, and many argue the PTAB does not have the authority to deny arguments on cumulative grounds when arguments meet the heightened institution standard. Petitioners would thus argue estoppel should not attach in such cases.

c. Negative Policy Effects of a Narrower Estoppel Interpretation

Opponents of a narrower estoppel interpretation note that allowing petitioners to advance additional arguments in subsequent litigation is burdensome for the court system. Specifically, any additional benefit a narrow estoppel interpretation pro-

156. See Letter from IBM Corp. to Lead Judge Michael Tierney, supra note 125, at 5.
157. See id.
vides for the petitioner likely does not exceed the cost to the court system. As noted, at the conclusion of IPR the PTAB releases a claim construction based on the evidence offered and arguments made. This claim construction will be very persuasive for district courts, negating new arguments by the defendant. Ultimately, a narrower estoppel interpretation may only make more work for already busy federal courts that do not have the time or resources for many complex patent cases. And with the increase in abusive litigation, a narrower estoppel interpretation may induce patent assertion entities (patent trolls) or other harassing plaintiffs to continue to raise poor arguments in future forums with hopes of forcing the defendant into settlement.

III. A MODIFIED BROAD ESTOPPEL INTERPRETATION IS BEST WHEN COMBINED WITH PROCEDURAL CHANGES TO RECTIFY UNNECESSARY DISADVANTAGES FOR THE PETITIONER

Per 35 U.S.C. § 315(e), some estoppel must attach to prevent petitioners from advancing duplicative arguments in forums after completing IPR. Practitioners have noted the ambiguity of the statute and some of the problems which arise from different interpretations. Section A thus proposes a novel interpretation for judges: federal judges should interpret IPR estoppel broadly, preventing petitioners from bringing all arguments in a future forum, excluding instances where the patent owner hid prior art. Still, as previously noted, a broad interpretation of estoppel unfairly burdens petitioners, and this may persuade potential petitioners against using IPR, defeating its purpose as a cost-effective and speedy alternative to traditional patent litigation. Thus, Section B provides remedies

159. See supra Part I.B.
160. Supra Part I.B.
161. The “Smart Phone War” trials are an example of the resource draining patent litigation cases that are becoming more common. See Florian Mueller, The Truth Is Neither the Court nor the Parties Really Wanted Today’s Apple-Samsung Damages Retrial, FOSS PATENTS (Nov. 12, 2013), http://www.fosspatents.com/2013/11/the-truth-is-neither-court-nor-parties.html.
163. See Morgan, supra note 3.
165. See supra Part II.B.1.
to lessen the disproportionate effect on petitioners while protecting patent owners from duplicative arguments to invalidate their patents.

A. THE BEST ESTOPPEL INTERPRETATION IS BROAD WITH AN EXCEPTION FOR PRIOR ART THE PATENT OWNER HIDES

Judges should interpret IPR’s estoppel provision to prevent petitioners from raising any printed publications and patents to invalidate a patent on novel or nonobvious grounds in district court, so long as the patent owner did not maliciously hide this prior art.\(^{166}\) As discussed, inventions must be novel under 35 U.S.C. § 102 to receive patent protection, and IPR allows petitioners to use patents and printed publications to destroy novelty.\(^ {167}\) In an egregious case, a patent owner could gain possession of the only copy of a printed publication and deliberately withhold it. If a patent owner possessed this prior art, but maliciously hid this evidence, a court should not estop a petitioner from raising this evidence in a future forum if the petitioner discovers this prior art. This interpretation is in accord with the plain language of the statute because the petitioner cannot reasonably find prior art that is deliberately hidden. One could argue that this interpretation does not reflect the change of “raised or could have raised” to “reasonably raised or could have raised,” but ensuring an exception for when the patent owner hides prior art effectuates the statutory change in language.

Further, a broad estoppel interpretation is the best for the patent litigation system.\(^ {168}\) Specifically, a broad estoppel interpretation forces petitioners to choose their best arguments carefully, as in typical federal litigation. This interpretation is fairest for owners of legitimate patent rights because it protects them from facing duplicative arguments in subsequent litigation.\(^ {169}\) Further, as the PTAB is already predisposed to invalidate patents, a broad estoppel interpretation preserves judicial efficiency.\(^ {170}\) Finally, a broad estoppel interpretation with an exception for hidden prior art leads to predictability for both the patent owner and petitioner.\(^ {171}\)

\(^{166}\) See supra Part II.B.

\(^{167}\) See supra Introduction.

\(^{168}\) See supra Part II.B.1.

\(^{169}\) Id.

\(^{170}\) Id.

\(^{171}\) Id.
B. PROCEDURAL CHANGES MUST BE ENACTED TO PREVENT DISPARATE EFFECTS ON PETITIONERS FROM A BROAD ESTOPPEL INTERPRETATION

While a broad estoppel interpretation is best, there are still procedural factors that make a broad estoppel interpretation especially burdensome for petitioners. As discussed, these primarily are the limited time-to-file for IPR and the PTAB’s practice of denying redundant arguments even when they meet the heightened institution standard. To fix these problems, Congress or the courts should require heightened notice pleading to provide defendants with better information regarding the claims asserted against them and prohibit the PTAB from denying institution on arguments it deems redundant.

First, when courts estop nearly all invalidity arguments in subsequent litigation, petitioners are unfairly prejudiced because they lack sufficient time to prepare arguments for the PTAB. Congress recognized this issue when drafting the America Invents Act. The original time limit for filing for IPR was six months from the date of service of an infringement lawsuit, but recognizing this was too short of a time, Congress extended the time-to-file to twelve months. However, some argue even a year is not long enough, and instead suggest linking the deadline to file for IPR to the Markman decision when the judge construes the claims. Thus, petitioners would have time to determine how to best challenge the claims in IPR after the district court rules on the claims’ meanings.

Ultimately, however, tying the deadline to file to the Markman decision would likely be too complex and inefficient. Each district court has its own procedure for the Markman hearing, as this is a judicially created procedure. While courts with larger patent dockets wait until meaningful discovery is

172. See supra Part II.A.1.
174. See supra Part II.A.1.
177. Id.
complete, other courts construe claims earlier.\textsuperscript{179} If Congress tied the time to file to the \textit{Markman} decision, this could lead to variable results where some parties have spent more resources on discovery than parties in other districts.\textsuperscript{180} Further, even if Congress tied the time to file for IPR to the \textit{Markman} decision, Congress would still need to give additional time for parties to construct arguments after the judge releases her \textit{Markman} construction. Overall, tying the time to file to the \textit{Markman} decision may lead to judicial inefficiency since “[s]ome courts don’t even hold a Markman hearing until [] a week or so before the trial,” and then parties will have already completed all discovery.\textsuperscript{181} This would be unfair to the parties.\textsuperscript{182}

The better solution would be for Congress or the courts to require plaintiffs to state which claims are allegedly infringed. During the 113th Congress, there were several bills that set forth heightened pleading standards for patent infringement.\textsuperscript{183} The House passed one such bill, Representative Goodlatte’s “Innovation Act,” which required plaintiffs “to identify the patents and claims infringed,” and to specify “exactly how they are infringed.”\textsuperscript{184} Senator Leahy, however, pulled the bill’s counterpart in the Senate, so reform against abusive patent litigation did not pass in the 113th Congress.\textsuperscript{185} While reform did not pass in the previous Congress, preeminent patent scholar Dennis Crouch predicts that the new Republican legislature will pass the Innovation Act in 2015.\textsuperscript{186}

\textsuperscript{180} Id.
\textsuperscript{181} \textit{AIA Hearings, supra} note 175 (statement of Procter & Gamble).
\textsuperscript{182} Id.
The Supreme Court may also have the opportunity to raise pleading standards in patent litigation. The Judicial Conference Advisory Committee is now considering eliminating Form 18 and requiring patent litigation to adhere to typical civil litigation notice pleading. If the committee approves eliminating Form 18, the Supreme Court will eventually need to approve this measure as well. Action by either Congress or the Court will help defendants have adequate knowledge to construct arguments for their IPR petitions. Then, petitioners are less disadvantaged by a broad estoppel interpretation since they have ample notice of which invalidity contentions they need to create.

The second main way in which a broad estoppel interpretation disadvantages petitioners is the PTAB's denial of redundant arguments. Congress should clarify the IPR procedural rules and prohibit denial based solely on redundant grounds. Multiple petitioners have argued the PTAB does not have the authority to deny arguments solely for being redundant. The PTAB argues it has this authority because it needs to complete IPR proceedings within twelve months. Still, when parties pay for a petition and the IPR institution standard does not mention denial based on redundant grounds, parties deserve a full review of their arguments. There may need to be more PTAB judges to ensure they finish IPRs within a year, but this is the proper interpretation of the statutory rules.

These solutions will effectuate Congress's intent for enacting the America Invents Act by making IPR the primary cost-effective vehicle for invalidating low-quality patents.

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187. See Crouch, supra note 173.
189. See Crouch, supra note 173.
190. See supra Part II.A.1.
191. See Cutler, supra note 158.
193. Some have already noted Congress will need to increase the number of PTAB judges, of which there are approximately 200, if it passes some of the new bills targeting abusive litigation. See Ryan Davis, Expanding Biz Method Review Could Swamp USPTO, LAW360 (Oct. 31, 2013, 7:05 PM), http://www.law360.com/articles/485134/expanding-biz-method-review-could-swamp-uspto.
interpretation of estoppel is best for effective patent litigation, but requiring better notice pleading and prohibiting the PTAB from denying redundant arguments ensures petitioners will be able to fairly use IPR.

CONCLUSION

Problems with patent litigation are impeding the purpose of the constitutionally created patent system, to promote technological progress. Companies face numerous low-quality patents, a rise in the total number of patent litigation suits, a rise in the cost of such suits, and abusive litigation tactics by some plaintiffs. Congress thus created IPR, intending to give defendants an efficient and inexpensive alternative to traditional federal litigation. IPR must coexist with federal patent litigation, however, so Congress drafted an estoppel provision to prevent unnecessary duplicative litigation for patent owners.

Patent practitioners are currently unsure of how future courts will apply estoppel from IPR. Of the possible interpretations, the best interpretation from a statutory and policy viewpoint is to estop parties from using any and all printed publications and patents to challenge the validity of a patent in a future forum on novel and nonobvious grounds, not including any prior art a patent owner hides. However, due to procedural factors of IPR, a broad interpretation detrimentally affects petitioners. The detrimental effects could prevent petitioners from filing for IPR and thwart Congress’s intent of making IPR an attractive alternative to federal litigation. Thus, Congress or the Supreme Court should require heightened notice pleading by plaintiffs in federal litigation, and Congress should prohibit the PTAB from denying redundant arguments when they otherwise meet the requirements needed for IPR. Overall, a broad estoppel interpretation and procedural fixes for petitioners will effectuate Congress’s desire in improving the patent system to promote progress.