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GIVING THE FEDERAL CIRCUIT A RUN FOR ITS MONEY: CHALLENGING PATENTS IN THE PTAB

*Rochelle Cooper Dreyfuss**

Passage of the America Invents Act of 2011 (AIA)¹ inaugurated three new procedures for challenging patents in the U.S. Patent and Trademark Office (PTO). Inter partes review (IPR) supplements the ex parte reexamination system and replaces its variant, inter partes reexamination;² the transitional program for covered business methods (CBM) institutionalizes what had been a more informal mechanism for reviewing such claims,³ and post-grant review (PGR) initiates a way to challenge patent claims immediately

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* Pauline Newman Professor of Law and Co-Director of the Engelberg Center on Innovation Law and Policy. I am grateful to the co-directors of the Engelberg Center and to Rachel Barkow, Annemarie Hassett, Helen Hershkoff, Patricia Martone, and John Pegram for their helpful comments, and to David Kappos for arranging a panel discussion with Judge Faith Hochberg and Micky Minhas, where I learned a great deal. The Filomen D'Agostino and Max E. Greenberg Research Fund of NYU provided financial support for this research.

1 Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284 (2011) (codified in scattered sections of 35 U.S.C.).

2 35 U.S.C. §§ 311–19 (2012) (supplanting the inter partes reexamination procedure; 35 U.S.C. §§ 311–17 (pre-AIA—enacted in 1999); 35 U.S.C. §§ 301–07 (supplementing ex parte reexamination). These systems were generally perceived as underutilized, see Dale L. Carlson & Robert A. Migliorini, *Past as Prologue for Patent Reform: Experience in Japan with Oppositions Suggests an Alternative Approach for the U.S.*, 88 J. PAT. & TRADEMARK OFF. SOC'Y 101, 105 (2006) (noting that only fifty-three requests for inter partes reexamination were filed between 2001 and 2004); Allan M. Soobert, *Breaking New Grounds in Administrative Revocation of U.S. Patents: A Proposition for Opposition—and Beyond*, 14 SANTA CLARA COMPUTER & HIGH TECH. L.J. 63, 66 (1998), or inadequate to protect patent quality, see Brian J. Love & Shawn Ambwani, *Inter Partes Review: An Early Look at the Numbers*, 81 U. CHI. L. REV. DIALOGUE 93, 95–96 (2014).

3 AIA § 18 (codified at 35 U.S.C. § 321 note). For the earlier procedure, see *Patent Quality Improvement: Expansion of the Second-Pair-of-Eyes Review*, U.S. PATENT & TRADEMARK OFF., <http://1.usa.gov/OQZfEj> (last modified Sept. 6, 2015). See generally David Orozco, *Administrative Patent Levers*, 117 PENN ST. L. REV. 1 (2012) (discussing the tightening of the patent review process in the area of business patents).

upon issuance.⁴ The increased importance of knowledge production throughout the global economy, coupled with the popularity of the Patent Cooperation Treaty, which eases the burden of filing in multiple countries,⁵ had expanded the number of patent applications and swamped the PTO's examination resources.⁶ The resulting thickets of patents—and especially the increase in patent assertions by nonpracticing entities (NPEs)—were thought to be imposing a high tax on innovation. At the urging of the National Academies of Science and with substantial support from the American Intellectual Property Law Association (AIPLA),⁷ Congress adopted these procedures to improve the likelihood that invalid patents would be quickly weeded out of the system.

To be sure, there are other ways to tackle the problem of low-quality patents. Increasing PTO resources would give examiners more time to search the literature and ensure that all the requirements for patentability are satisfied before patent rights are granted. Indeed, the AIA did some of this as well: it gave the PTO the power to set fees and retain them.⁸ But there are limits to that approach. As Mark Lemley has convincingly argued, many patents have little commercial significance; examining them more thoroughly wastes social resources.⁹ Furthermore, there are inevitable distortions in the process. Although examination is intended to protect the integrity of the public domain and the interest of the public in full disclosure of protected inventions, examiners deal only with those aspiring to acquire protection. While the PTO no longer follows an avowed “customer service paradigm” aimed at satisfying applicants,¹⁰ systematic contact with only one constituency can lead to unconscious bias. Furthermore, as Melissa Wasserman, Michael Frakes, and Rob Merges have demonstrated, factors such as the pressure to earn maintenance fees, time constraints, informational asymme-

4 35 U.S.C. §§ 321–29.

5 Patent Cooperation Treaty, Preamble, June 19, 1970, 28 U.S.T. 7645, 1160 U.N.T.S. 231.

6 See U.S. PATENT & TRADEMARK OFF., PERFORMANCE & ACCOUNTABILITY REPORT 142–52 (2014), <http://www.uspto.gov/about/stratplan/ar/USPTOFY2014PAR.pdf>.

7 See generally STEPHEN A. MERRILL ET AL., A PATENT SYSTEM FOR THE 21ST CENTURY loc. ii (2004) (ebook) (discussing patent reform), http://www.nap.edu/openbook.php?record_id=10976; Joe Matal, *A Guide to the Legislative History of the America Invents Act: Part II of II*, 21 FED. CIR. B.J. 539, 601 (2012) (citing *Patent Quality Improvement: Post-Grant Opposition: Hearing Before the Subcomm. on Courts, the Internet, and Intellectual Prop. of the H. Comm. on the Judiciary*, 108th Cong. 29 (2004) (statement of Michael Kirk, Director, AIPLA)).

8 AIA § 10 (codified at 35 U.S.C. §§ 41–42).

9 Mark A. Lemley, *Rational Ignorance at the Patent Office*, 95 NW. U. L. REV. 1495 (2001).

10 James Farrand et. al., *“Reform” Arrives in Patent Enforcement: The Big Picture*, 51 IDEA 357, 437 (2011) (internal quotations omitted) (noting that the PTO viewed patent applicants as the PTO's customers “without adequately recognizing the interests of the public.”); see also, e.g., U.S. PATENT & TRADEMARK OFF., PERFORMANCE AND ACCOUNTABILITY REPORT 2 (2000), <http://www.uspto.gov/sites/default/files/about/stratplan/ar/USPTOFY2000PAR.pdf> (noting a “rise in customer . . . satisfaction”).

tries, metrics for rating examiners' performance, and high examiner turnover can create other pathologies that lead to over-granting.¹¹

Better, to economists like Adam Jaffe and Josh Lerner, is to devote additional resources only to those patents that matter.¹² Of course, litigation does exactly that: patents that are asserted or challenged in a declaratory judgment action are, by definition, significant to someone. But litigation has its own problems. The process is extremely expensive.¹³ While these heavy costs are borne only by the challenger, the industry as a whole enjoys the benefits of invalidation.¹⁴ Thus, there is a collective action problem: every would-be challenger has an incentive to sit back and wait for a competitor to do the heavy lifting.¹⁵ A patent can thus have an impact on an industry even when the industry questions its validity. In addition, not everyone who is affected by the exclusivity of a patent has standing to challenge it in court.¹⁶ To be sure, the patentee's competitors will often have direct enough interests, but as members of the same industry, they are unlikely to make arguments that could imperil their own patent holdings. Accordingly, there may be patents that impair the public interest that no one has both an incentive and the capacity to challenge. For example, it took decades for patents on isolated genes to be questioned.¹⁷ The parties who finally did so (the ACLU and various doctors and patients) barely managed to convince a court that

11 See generally Michael D. Frakes & Melissa F. Wasserman, *Does Agency Funding Affect Decisionmaking?: An Empirical Assessment of the PTO's Granting Patterns*, 66 VAND. L. REV. 67 (2013) (analyzing the impact of funding on USPTO decisionmaking); Robert P. Merges, *As Many as Six Impossible Patents Before Breakfast: Property Rights for Business Concepts and Patent System Reform*, 14 BERKELEY TECH. L.J. 577 (1999) (analyzing how business concept patents overload the patent system); Melissa F. Wasserman, *The PTO's Asymmetric Incentives: Pressure to Expand Substantive Patent Law*, 72 OHIO ST. L.J. 379 (2011).

12 ADAM B. JAFFE & JOSH LERNER, *INNOVATION AND ITS DISCONTENTS: HOW OUR BROKEN PATENT SYSTEM IS ENDANGERING INNOVATION AND PROGRESS, AND WHAT TO DO ABOUT IT* 22 (2004).

13 See, e.g., AM. INTELLECTUAL PROP. LAW ASS'N, 2013 REPORT OF THE ECONOMIC SURVEY (2013), <http://www.patentinsurance.com/custdocs/2013aipla%20survey.pdf> (estimating that patent infringement litigation costs over \$2 million through trial for cases worth less than \$25 million and close to \$6 million for the most valuable cases).

14 See *Blonder-Tongue Labs., Inc. v. Univ. of Ill. Found.*, 402 U.S. 313, 335 (1971) (abolishing the doctrine of mutuality of estoppel).

15 See, e.g., Joseph Farrell & Robert P. Merges, *Incentives to Challenge and Defend Patents: Why Litigation Won't Reliably Fix Patent Office Errors and Why Administrative Patent Review Might Help*, 19 BERKELEY TECH. L.J. 943 (2004) (explaining the problems in the existing administrative system); John R. Thomas, *Collusion and Collective Action in the Patent System: A Proposal for Patent Bounties*, 2001 U. ILL. L. REV. 305, 307 ("Not only are opposition regimes ripe with collective action and free rider problems, they do not account for the possibility of collusion between the patentee and holder of patent-defeating prior art.").

16 See Michael J. Burstein, *Rethinking Standing in Patent Challenges*, 83 GEO. WASH. L. REV. 498, 500 (2015).

17 See *Ass'n for Molecular Pathology v. U.S. Patent & Trademark Office*, 689 F.3d 1303, 1343 (Fed. Cir. 2012) (Moore, J., concurring in part) ("[T]he United States Patent Office has allowed patents on isolated DNA sequences for decades . . ."), *aff'd in part, rev'd in part sub nom.*, *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107 (2013).

one of them was affected in a manner that met the standing requirements of federal law.¹⁸

Even after a challenge is brought, there are obstacles to successfully attacking invalid claims. Deference to administrative procedures, along with a provision of patent law providing that “[a] patent shall be presumed valid,” has led courts to assign to the challenger the burden of establishing invalidity by clear and convincing evidence.¹⁹ While this burden seemingly makes little sense in situations where the PTO did not find—and thus never reviewed—all the evidence relevant to validity, the Supreme Court has insisted on fidelity to that longstanding practice.²⁰

Prior to 1982, there was also a problem of persistent inconsistencies among the appellate courts hearing patent appeals, which led to forum shopping, uncertainty, and (arguably) a flight from patents to trade secrecy. The Federal Circuit was established in 1982 to remedy that concern; it hears virtually all patent appeals arising from the district courts, the PTO, and the International Trade Commission (ITC).²¹ But as I documented in a series of articles,²² channeling cases to a single appellate court introduced new complications. The court apparently saw in its creation an expression of congressional desire to strengthen protection. Thus, it reduced the standards of patentability; for example, it made it easier to find an invention nonobvious and extended the scope of patentable subject matter (to include, for instance, business methods).²³ This deepened the patent thicket, which led

18 See *Ass’n for Molecular Pathology v. U.S. Patent & Trademark Office*, 653 F.3d 1329, 1343–48 (Fed. Cir. 2011), *aff’d in part, rev’d in part sub nom.*, *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107 (2013).

19 35 U.S.C. § 282(a) (2012); see also Stuart Minor Benjamin & Arti K. Rai, *Who’s Afraid of the APA? What the Patent System Can Learn from Administrative Law*, 95 GEO. L.J. 269, 280–81 (2007) (alteration in original).

20 See *Microsoft Corp. v. i4i Ltd. P’ship*, 131 S. Ct. 2238, 2245–46, 2252 (2011).

21 28 U.S.C. § 1295 (2012).

22 See generally Rochelle C. Dreyfuss, *Abolishing Exclusive Jurisdiction in the Federal Circuit: A Response to Judge Wood*, 13 CHI.-KENT J. INTEL. PROP. 327 (2014); Rochelle Cooper Dreyfuss, *The Federal Circuit: A Case Study in Specialized Courts*, 64 N.Y.U. L. REV. 1 (1989); Rochelle Cooper Dreyfuss, *The Federal Circuit: A Continuing Experiment in Specialization*, 54 CASE W. RES. L. REV. 769 (2004); Rochelle Cooper Dreyfuss, *The Federal Circuit as an Institution: What Ought We to Expect?*, 43 LOY. L.A. L. REV. 827 (2010); Rochelle Cooper Dreyfuss, *In Search of Institutional Identity: The Federal Circuit Comes of Age*, 23 BERKELEY TECH. L.J. 787 (2008); Rochelle C. Dreyfuss, *Percolation, Uniformity, and Coherent Adjudication: The Federal Circuit Experience*, 66 SMU L. REV. 505 (2013) [hereinafter Dreyfuss, *Percolation*]; Rochelle Cooper Dreyfuss, *What the Federal Circuit Can Learn from the Supreme Court—and Vice Versa*, 59 AM. U. L. REV. 787 (2010) [hereinafter Dreyfuss, *Learning*].

23 See, e.g., *In re Sang-Su Lee*, 277 F.3d 1338, 1344 (Fed. Cir. 2002) (rejecting the use of common sense in determining obviousness); *State St. Bank & Tr. Co. v. Signature Fin. Grp., Inc.*, 149 F.3d 1368, 1368 (Fed. Cir. 1998) (finding business methods patentable).

the Supreme Court to grant certiorari in increasing numbers of cases and to reverse or modify the Federal Circuit's resolution in most of them.²⁴

Not only has the Federal Circuit had difficulty persuading others that it has taken normatively appropriate positions,²⁵ it has also had problems implementing the Supreme Court's views and guiding district court practice.²⁶ Some scholars and judges have suggested revising the jurisdictional rules to give other courts some authority over adjudicating patent disputes.²⁷ This would increase percolation and bring other points of view, including an antitrust perspective, to bear on questions of patentability, infringement, defenses, and remedies. But because practitioners prefer certainty and predictability, Congress is unlikely to make that change.²⁸

The new procedures instituted by the AIA could remedy many of these problems. Because these challenges are adjudicated within the PTO, the Patent Trial and Appeal Board (PTAB or Board), which hears these cases, applies the same preponderance of the evidence standard used to determine whether to grant a patent in the first place.²⁹ Since the cost of engaging in these administrative adjudications is lower than litigation, those who believe the patent invalid may be less likely to wait for someone else to come forward. Furthermore, the availability of a less expensive procedure to challenge patents could make the NPE business model less viable. Both IPRs and PGRs can be brought by any interested party. Accordingly, the public can use the procedures to vindicate interests that are not shared by the patent holder's rivals. And because a request for a PGR must be made within nine months of the issuance of the patent and all three procedures are subject to strict time

24 See, e.g., *Bilski v. Kappos*, 561 U.S. 593, 3222 (2010) (barring patents on abstractions); *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 419 (2007) (raising the standard of nonobviousness).

25 See Dreyfuss, *Percolation*, *supra* note 22, at 515–18 (citing, among others, reactions of the Supreme Court, the Federal Trade Commission, and the Department of Justice).

26 For examples of the Federal Circuit's difficulties, consider the Supreme Court's four attempts to narrow the scope of patentable subject matter, *Alice Corp. Pty. v. CLS Bank Int'l*, 134 S. Ct. 2347 (2014); *Ass'n for Molecular Pathology v. Myriad Genetic, Inc.*, 133 S. Ct. 2107 (2013); *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289 (2012); *Bilski*, 130 S. Ct. 3218 (2010), and its attempts to retain the doctrine of equivalents, *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722 (2002); *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17 (1997); see also generally Craig Allen Nard & John F. Duffy, *Rethinking Patent Law's Uniformity Principle*, 101 Nw. U. L. Rev. 1619 (2007); Kathleen M. O'Malley et al., *A Panel Discussion: Claim Construction from the Perspective of the District Judge*, 54 CASE W. RES. L. REV. 671 (2004).

27 See, e.g., Nard & Duffy, *supra* note 26, at 1642–50; Diane P. Wood, *Keynote Address: Is It Time to Abolish the Federal Circuit's Exclusive Jurisdiction in Patent Cases?*, 13 CHI.-KENT J. INTEL. PROP. 1 (2014).

28 See, e.g., Harold C. Wegner, *Federal Circuit Exclusive Appellate Patent Jurisdiction: A Response to Chief Judge Wood*, 13 CHI.-KENT J. INTEL. PROP. 394, 395 (2014).

29 See 35 U.S.C. §§ 316(e), 326(e) (2012).

limits, invalid patents can be cleared quickly and more timely feedback provided to the examining corps.³⁰

As important, these procedures have the potential to change the institutional culture of both the PTO and the federal courts. They require the PTO to focus on the concerns of nonpatentees (that is, to consider challengers to be among its “customers”) and to evaluate patents later in their life, after more art pertinent to the question of validity has emerged. Furthermore, the PTAB is likely to be among the first to implement new Supreme Court pronouncements; it will probably also be the first to consider questions raised by the substantive changes made in the AIA.³¹ Unlike the district courts, which must also grapple with these issues, the PTAB has expertise to cope with the technical aspects of its cases: it is composed entirely of patent and technology experts and there is an effort to staff each three-member panel with at least one judge who has specific familiarity with the field of the patented invention.³² With these improvements over its predecessor, the Board of Patent Appeals and Interferences (BPAI), the PTAB could provide the Federal Circuit with a partner in the enterprise of interpreting patent law and implementing Supreme Court decisions. While it is true that the Federal Circuit, as the reviewing court, has the final say,³³ the PTAB breaks its isolation. At the same time, the thorough analysis furnished by the PTAB could give district courts better guidance on how to apply the law to emerging technologies.

The question is whether these salutary effects will, in fact, come to pass. At this point, there have been several statistical studies of the new procedures, including some by the PTO. This Article is intended to look beyond the numbers. To that end, I read all the final written decisions in CBM reviews handed down by the end of November 2014 as well as a set of final written decision in IPRs, starting with the first case filed, more than fifty cases in total. In addition, I read a selection of decisions to institute review, decisions on various motions, all the opinions issued by the Federal Circuit reviewing the PTAB, as well as the considerable outpouring (mostly in the form of blogs) published by those practicing before the PTAB. This is very

30 Cf. Bronwyn H. Hall & Dietmar Harhoff, *Post-Grant Reviews in the U.S. Patent System—Design Choices and Expected Impact*, 19 BERKELEY TECH. L.J. 989 (2004) (analyzing the efficiency effects of proposals for post-grant opposition procedures).

31 See *infra* text accompanying notes 181–185.

32 35 U.S.C. § 6(a) (requiring “persons of competent legal knowledge and scientific ability”); Erin M. Dunston & Philip L. Hirschhorn, *The New America Invents Act Post-Grant Procedures: IPRs, CBMs, and PGRs—Effective Complements to or Alternative for Traditional IP Litigation Strategies*, in LITIGATION STRATEGIES FOR INTELLECTUAL PROPERTY CASES 101, 105 (2014). Appointees are drawn from the USPTO examining corps, other government agencies, private practice, and industry. See U.S. PATENT & TRADEMARK OFF., PATENT PUBLIC ADVISORY COMMITTEE QUARTERLY MEETING: PATENT TRIAL AND APPEAL BOARD UPDATE (Feb. 12, 2014), http://www.uspto.gov/about/advisory/ppac/20140212_PPAC_PTABUp date.pdf.

33 The standard of review is, however, a difficult question, see *infra* text accompanying notes 227–278.

early in the life of these procedures; CBMs and IPRs began on September 16, 2012, and the PGR procedure can only be used to challenge patents issued on applications filed after the AIA went into full effect on March 16, 2013. Only a few PGR petitions have been publicly filed so far; the PTAB has instituted only two reviews, and as of this writing, no case has been decided.³⁴ While the other two procedures have been in use for two years, the early cases may be clearing a backlog of questionable patents and thus may not be representative of future practice.³⁵ Furthermore, the Federal Circuit has reviewed very few final decisions of the PTAB under the new procedures. Most of the cases have been decided without written opinion.³⁶

Nonetheless, it is valuable to consider what has happened so far. The cases I considered were sufficient to provide a sense of how the procedures operate and the opportunities they create to streamline—but also to game—the system. My main objective is directed at institutional questions, to help the PTO and Congress as each considers changes to the system³⁷ and to gauge how well the PTAB could function to ameliorate the effect of Federal Circuit isolation and provide a basis for the court to consider new perspectives, write more persuasively, and provide better guidance. A second goal is

34 The instituted cases are *American Simmental Ass'n v. Leachman Cattle of Colorado, LLC*, No. PGR2015-00003 (P.T.A.B. June 19, 2015), and *American Simmental Ass'n v. Leachman Cattle of Colorado, LLC*, No. PGR2015-00005 (P.T.A.B. June 19, 2015). As of June 29, 2015, eleven PGRs had been filed. USPTO, https://ptabtrials.uspto.gov/prweb/PRWebLDAP2/Hcl5xOSeX_yQRYZAnTXXCg%5B%5B*/!STANDARD?UserIdentifier=searchuser (last visited Oct. 27, 2015).

35 See Colleen Chien & Christian Helmers, *Inter Partes Review and the Design of Post-Grant Patent Reviews*, STAN. TECH. L. REV. (forthcoming) (manuscript at 14–16), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2601562 (noting other selection effects).

36 See FED. CIR. R. 36 (permitting entry of judgment without opinion). The cases decided with written opinion include *Versata Development Group, Inc. v. SAP America, Inc.*, 793 F.3d 1306 (Fed. Cir. 2015), *Microsoft Corp. v. Proxyconn, Inc.*, 789 F.3d 1292 (Fed. Cir. 2015), and *In re Cuozzo Speed Technologies, LLC*, 793 F.3d 1268 (Fed. Cir. 2015). Only the decision in *Proxyconn* was reversed.

37 The STRONG Patents Act, S. 632, 114th Cong. (2015), would change many aspects of post-grant review, including the burden of proof on invalidity, the standard for claim construction, and standing to petition for review. The PATENT Act, S. 1137, 114th Cong. (2015), was initially directed at other issues, but Section 11 of the current Manager's Amendment includes a section on PTAB procedures that would change the standard for claim construction, broaden the grounds for amending claims, and alter other rules for conducting post-grant opposition; the Innovation Act, H.R. 9, 114th Cong. (2015), is similar. The changes contemplated by the PTO are outlined in PTO Director Michelle K. Lee's blog. See Michelle K. Lee, *PTAB'S Quick-Fixes for AIA Rules Are to Be Implemented Immediately*, U.S. PATENT & TRADEMARK OFF. (Mar. 27, 2015, 10:18 AM), http://www.uspto.gov/blog/director/entry/ptab_s_quick_fixes_for. These include changing page limits, adjusting motion practice (including for amending claims), permitting the introduction of more evidence (including live testimony), allowing more discovery (especially on the question of who is the real party in interest), and adding new rules to deal with multiple challenges to the same patent. See also Amendments to the Rules of Practice for Trials Before the Patent Trial and Appeal Board, 80 Fed. Reg. 50720 (proposed Aug. 20, 2015) (to be codified at 37 C.F.R. pt. 42).

to draw greater academic attention to the potential these procedures have for changing the patent system and to provoke discussion—outside the emerging PTAB bar—on how they ought to operate. In particular, the statute layers inter partes review in a specialized agency under appellate review in a specialized court. I offer some thoughts on how authority over patent jurisprudence should be allocated between these two centers of expertise.

The Article proceeds as follows. Part I describes the three procedures. Part II evaluates use of the new system. Part III discusses the interaction between the PTAB and the Federal Circuit. Part IV looks at the problems these procedures raise for the parties, the adjudicators, and the sound administration of patent law.

I. THE NEW PROCEDURES

The AIA provisions establishing the three new procedures, coupled with the PTO's regulations implementing them, create a complex procedural landscape. This Part describes the provisions and how they interact.

As noted above, Congress had many reasons to create new mechanisms for challenging patents within the PTO. First among them, however, were cost and timing.³⁸ The procedures Congress mandated and the regulations adopted by the PTO reflect that priority.³⁹ PGRs, IPRs, and CBMs are loosely referred to by attorneys as “trials,” and are presided over by the PTAB using many procedural safeguards. But they are not the demonstrative spectacle of the courtroom. Instead, reviews are conducted in staggered fashion, according to a strict time table, and with page and discovery limitations, preferably on “paper” (in fact, electronic) filings.⁴⁰ In theory, the parties are represented by individuals who practice before the PTO, although other attorneys (such as litigators) can be admitted *pro hac vice* upon a showing of good cause.⁴¹ The fees are relatively low but rise as more claims are challenged.⁴²

The three proceedings have much in common. Each begins with a petition to institute,⁴³ to which the patent owner may file a preliminary response. Once a petition is granted in whole or part,⁴⁴ the panel and parties agree on

38 See Jonathan Tamimi, *Breaking Bad Patents: The Formula for Quick, Inexpensive Resolution of Patent Validity*, 29 BERKELEY TECH. L.J. 587, 591 (2014).

39 35 U.S.C. § 312 (2012) (giving the PTO authority to create rules); 37 C.F.R. §§ 41–42 (2014).

40 For a fuller description, see Dunston & Hirschhorn, *supra* note 32, at 102–08; for a detailed exposition, see Tamimi, *supra* note 38.

41 37 C.F.R. § 42.10(c) (2014).

42 *Id.* § 42.15. For figures, see *infra* note 364.

43 See *id.* §§ 42.20–.80, 42.100–.123, 42.200–.224, 42.300–.304.

44 The PTAB's decisions concerning institution can be reheard by the Board. *Id.* § 42.71. However, they cannot be appealed directly to the Federal Circuit, 35 U.S.C. §§ 314(d), 324(e), or set aside by a district court, *Versata Dev. Grp., Inc. v. Lee*, 793 F.3d 1352 (Fed. Cir. 2015). Whether they can be reviewed in conjunction with review of the final written decision is unclear. In *In re Cuozzo Speed Technologies, LLC*, the Federal Circuit denied review on an IPR challenge. 793 F.3d 1268, 1273–74 (Fed. Cir. 2015). However, in *Versata*, a CBM case, the Federal Circuit restyled the question as whether the PTAB

how the proceedings will be conducted, usually through a telephone conference. The parties then have a limited period in which to conduct discovery. The patent owner can file a response to the petition, which can include a motion to amend any claims found to be unpatentable; the petitioner can then file a reply and an opposition to the motion to amend. The next few months provide the parties with opportunities to challenge evidence, file observations, and request and engage in oral argument. All in all, the procedure, once instituted, should conclude in one year (although it can be extended for six additional months).⁴⁵ Given the tight time limits on pre-institution activity, the entire process should, at most, take two years from start to finish.

In considering the challenge to a claim, the statute requires the Board, sitting in panels of three judges, to evaluate whether the petitioner sustained the burden of proving that it is more probable than not that the claim is invalid.⁴⁶ This is identical to the burden the PTO bears in the examination process. Similar to examination, the regulations require the Board to give unexpired claims their broadest reasonable interpretation.⁴⁷ Because challenges can be brought only against individual patents, but many challenges against a patent (or particular claims in it) can be mounted, the PTAB must also consider whether proceedings should be joined and considered together.⁴⁸

Once the PTAB hands down a final written decision, the losing party may appeal to the Federal Circuit.⁴⁹ By statute, a disappointed patent holder may also propose a reasonable number of amendments, but may not broaden the scope of the patent.⁵⁰ As interpreted by the PTO, each proposed amendment must be a direct response to the successful challenge.⁵¹ After the time to appeal has expired or the appeal is terminated, the PTAB

exceeded its authority in calling the invention in question a covered business method and then invalidating it. 793 F.3d at 1319–20. Over a strong partial dissent by Judge Hughes, *id.* at 1337–42, it then held it could decide whether the PTAB made the institution decision correctly.

45 37 C.F.R. §§ 42.100–.200.

46 35 U.S.C. §§ 316(e), 326(e). Section 18(a)(1) of the AIA mandates the use of PGR standards and procedures for CBMs, with some exceptions. Accordingly, the statutory provision for CBMs will not be cited separately unless the issue is within the exception.

47 37 C.F.R. §§ 42.100(b), 42.200(b), 42.300(b).

48 35 U.S.C. §§ 315(c), 325(c); 37 C.F.R. §§ 42.122, 42.222, 42.300. The PTAB also has discretion to refuse to institute if the petition relies on previously presented prior art or arguments. *See* 35 U.S.C. § 325(d); *Conopco, Inc. v. Proctor & Gamble Co.*, No. IPR2014-00507 (P.T.A.B. July 7, 2014) (institution decision applying § 325(d) to IPR cases). When cases are joined, the Board will consider the challenges raised in each complaint, even if they do not overlap. *See, e.g., Ariosa Diagnostics v. ISIS Innovation Ltd.*, No. IPR2012-00022, at 20 (P.T.A.B. Sept. 2, 2014). All citations of PTAB decisions are to final written decisions unless otherwise noted.

49 35 U.S.C. §§ 319, 329.

50 *Id.* §§ 316(d), 326(d).

51 37 C.F.R. §§ 42.121, 42.221, 42.300. The PTAB has added other considerations. *See infra* text accompanying notes 212–15.

issues a certificate in accordance with its findings (cancelling, confirming, or amending each challenged claim).⁵² Settlements are possible, but any agreement made in connection with the settlement must be filed with the PTO. These can, however, be made confidential.⁵³

Along the way, the parties must plead with considerable precision. For example, the petition to institute must identify the real parties in interest and all administrative and judicial matters related to the proceedings,⁵⁴ and include a certification that the petitioner is not barred from bringing the challenge, the precise relief requested for each claim challenged, the basis for the challenge (including, according to the PTO, how the claim should be construed), and citation of the evidence that supports the challenge.⁵⁵ Petitions and responses must also conform to strict page limits.⁵⁶ Testimony and cross-examination (which are time-limited) are submitted in the form of exhibits (affidavits, transcripts of depositions);⁵⁷ supplemental information can be filed, but only within a narrow time frame or on a good-cause or interests-of-justice standard.⁵⁸

While the three new procedures have much in common, there are also important distinctions. Together, PGRs and IPRs are meant to provide a way to challenge patents throughout their term, but the proceedings are separately crafted to deal with right holders' growing reliance interests. CBMs are different again: they are meant to help clear particularly questionable patents from the system.

A. *Post-Grant Review*

The PGR is, in essence, the main response to the National Academies' call to "weed out invalid patents or revise and narrow the claims."⁵⁹ Nominally, it is available only to challenge patents issued under the first-to-file priority rule, which was also instituted by the AIA.⁶⁰ Thus, it applies to patents issued on applications filed on or after March 16, 2013.⁶¹ However, because the statute refers to patents that contain "a claim" with this effective filing date,⁶² it is possible that PGRs can be brought to challenge claims in patents

52 35 U.S.C. §§ 318(b), 328(b); 37 C.F.R. § 42.80.

53 35 U.S.C. §§ 317, 327; 37 C.F.R. § 42.74.

54 35 U.S.C. §§ 312, 322; 37 C.F.R. § 42.8 (b).

55 37 C.F.R. §§ 42.104, 42.204, 42.304.

56 *Id.* § 42.24 (limiting IPRs to 60 pages, PGRs and CBMs to 80, and motions, including motions to amend, to 15).

57 *Id.* § 42.53.

58 *Id.* §§ 42.123, 42.223.

59 MERRILL ET AL., *supra* note 7, at 96.

60 *See* 35 U.S.C. §§ 102–03 (2012).

61 AIA §§ 6(d), (329)(f)(2)(A), Pub. L. No. 112-29, 125 Stat. 284 (2011) (codified in scattered sections of 35 U.S.C.).

62 *See id.* § 3(n)(1)(A).

with earlier priority dates, so long as one claim that was not supported by the original disclosure was added after that date.⁶³

A petition for post-grant review may be filed by anyone who is not the owner of the patent, has not (or whose real party in interest has not) already filed a civil action challenging a claim in the patent, and is not estopped by a prior action.⁶⁴ It must be instituted within nine months of the grant of a patent or the broadening reissuance of a patent previously granted.⁶⁵ In keeping with the notion that patents may be of low quality for many reasons, including lack of novelty, obviousness, indefiniteness, inadequacy of a written description, or failure to enable, the petitioner is permitted to raise any of the grounds of invalidity denominated in the Patent Act as “defenses” to an infringement action.⁶⁶ And in keeping with this broad scope of challenge, the scope of discovery is potentially liberal: notwithstanding the explicit limits,⁶⁷ additional discovery is available upon a showing of good cause.⁶⁸ Discovery is, however, limited to “evidence . . . related to factual assertions advanced by either party.”⁶⁹

The decision to institute a PGR requires the Board to determine whether the petition presents information that “if [it] is not rebutted, would demonstrate that it is more likely than not that at least [one] of the claims challenged . . . is unpatentable.”⁷⁰ Importantly, the Board can also institute if the petition raises a “novel or unsettled legal question that is important to other patents or patent applications,”⁷¹ for this allows the PTAB to consider questions that will arise as the PTO implements the substantive provisions of the AIA. Once the determination to institute is made, other claims in the patent can also be challenged. While a petitioner cannot institute a PGR if it has already instituted a civil action challenging validity,⁷² a civil action can be

63 See *In re Choon's Design Inc.*, No. PGR2014-00008 (petition filed Aug. 5, 2014) (pending).

64 35 U.S.C. §§ 325 (a), (e); 37 C.F.R. § 42.201 (2014).

65 35 U.S.C. § 321(c); 37 C.F.R. § 42.20. Reissuances that are identical to or narrower than the claims in the original patent cannot be challenged nine months after the original patent issued.

66 35 U.S.C. § 321(b) (citing 35 U.S.C. § 282(b)). This covers all statutory grounds of unpatentability, including challenges to subject matter under § 101. *Versata Dev. Grp., Inc. v. SAP Am., Inc.*, 793 F.3d 1306, 1329–30 (Fed. Cir. 2015). But it does not cover common law grounds, such as double patenting. *Cf. Apple Inc. v. Sightsound Techs., LLC*, No. CBM2013-00021, at 25 (P.T.A.B. Oct. 8, 2013) (denying petition to institute and interpreting a similar provision for CBMs).

67 37 C.F.R. § 42.51 (setting out mandatory initial disclosures and permitting the parties to agree to additional discovery).

68 37 C.F.R. § 42.224(a).

69 *Id.* § 42.224(b).

70 35 U.S.C. § 324(a).

71 *Id.* § 324(b); 37 C.F.R. § 42.208(d).

72 35 U.S.C. § 325(a)(1).

filed *after* the PGR is instituted. In that case, the civil action is stayed until the patent owner moves to lift the stay or files an infringement action.⁷³

Although adverse decisions can be appealed to the Federal Circuit, once a final written decision is handed down, the statute provides that the petitioner, its privies, and real party in interest are estopped from raising before the PTO, in a civil action, or in the ITC, an issue that was raised or reasonably could have been raised in the PGR.⁷⁴ Given the narrow window for bringing PGRs and the limitations on discovery and argument, however, it is not clear that Congress intended to extend estoppel to grounds that were not raised. Because the “reasonably could have raised” language appears to have been a drafting error, legislative efforts are being made to strike it.⁷⁵ Arguably, however, estoppel plays an important role in protecting patent owners from harassment.⁷⁶ As discussed more fully below, the impact of PGRs may depend heavily on the fate of this provision—or on how reasonably “reasonably” is interpreted and who are considered in privity with the challenger. A final written decision also estops the patent holder. It cannot take “action inconsistent with the adverse judgment.”⁷⁷ This includes obtaining a claim that is the same as a claim that was cancelled or a proposed amendment that was rejected.⁷⁸

B. *Inter Partes Review*

To some extent, IPRs pick up where PGRs leave off: for first-to-file claims, they can be instituted as soon as the date to file a PGR has passed.⁷⁹ IPRs are, however, also available to challenge patents issued under the first-to-invent system. Since these are not subject to PGR review, a challenge can be filed as soon as the patent is granted.⁸⁰ As with PGRs, anyone who is not the patent owner and is not already estopped may file one,⁸¹ but as before, petitioners face a choice: no one who has filed a civil action challenging the validity of a claim in the patent can then file an IPR.⁸² As with PGRs, there is

73 *Id.* § 325(a)(2). In addition, PGRs can be instituted after validity is challenged in a counterclaim. *Id.* § 325(a)(3).

74 *Id.* § 325(e); 37 C.F.R. § 42.73(d)(1).

75 See *Implementation of the Leahy-Smith America Invents Act: Hearing Before the Comm. on the Judiciary House of Representatives*, 112th Cong. 60 (2012) (statement of Robert A. Armitage, Senior Vice President and Gen. Counsel of Eli Lilly and Co.); Matal, *supra* note 7, at 618.

76 See Robert L. Stoll, *Maintaining Post-Grant Review Estoppel in the America Invents Act Revisited: A Call for Legislative Restraint*, 23 FED. CIR. B.J. 15, 33–37 (2013) (arguing that a broader estoppel protects the judicial system as well as the patent holder).

77 37 C.F.R. § 42.73(d)(3).

78 *Id.*

79 35 U.S.C. § 311(c); 37 C.F.R. § 42.102(a)(1). When it is possible to institute an IPR after a PGR, the IPR can be instituted as soon as the PGR is terminated. 37 C.F.R. § 42.102(a)(3).

80 37 C.F.R. § 42.102(a)(2).

81 35 U.S.C. §§ 311(a), 315(e).

82 *Id.* § 315(a)(1); 37 C.F.R. § 42.101(a), (c). Again, counterclaims for invalidity do not count. See 35 U.S.C. § 315(a)(3).

a provision to stay court proceedings the petitioner files after filing an IPR.⁸³ In addition, if the petitioner, his privy, or real party in interest has already been served with a complaint alleging infringement, the IPR must be sought within a year of service.⁸⁴

IPRs are different from PGRs in one critical respect: claims can be challenged only on the grounds of novelty and nonobviousness, and then only if the prior art constitutes a patent or a printed publication.⁸⁵ The standard for finding the claim unpatentable is the same as for PGRs, but the limit on the grounds for invalidation means that the patent holder and its post-issuance investment are exposed to invalidation on this standard only with respect to issues that could not easily be determined soon after issuance (and only with the use of materials that can be easily put into evidence). There are other subtleties. Institution depends only on whether there is “a reasonable likelihood that the petitioner would prevail with respect to at least [one] of the claims challenged in the petition,” taking into account the patent owner’s preliminary response (if one is filed).⁸⁶ There is no provision for additional discovery on a good-cause standard, although it can be provided in the interest of justice.⁸⁷ While estoppel for the patent holder is the same as for PGRs, the effect of preclusion is different for the petitioner. As the only grounds that can be raised in the IPR are novelty and nonobviousness based on a narrow range of prior art, there are many grounds on which the identical claims can be challenged in court or in the ITC.

C. Transitional Program for Covered Business Methods

CBMs were added to the AIA at the tail end of legislative deliberations,⁸⁸ in the wake of several Supreme Court cases questioning the Federal Circuit’s interpretation of the scope of patentable subject matter and as NPE actions emerged as a problem.⁸⁹ As its formal name implies, the program is

83 35 U.S.C. § 315(a)(2).

84 *Id.* § 315(b). There is controversy over how this bar applies when the suit is dismissed, multiple suits are filed, or the infringement allegation is in a counterclaim. *See* Tamimi, *supra* note 38, at 629–31.

85 35 U.S.C. § 311(b). Note, however, that other issues, including § 101 challenges, can arise in IPRs in connection with motions to amend because the panel will consider whether the amended claim is patentable subject matter. *See, e.g.*, *Ariosa Diagnostics v. ISIS Innovation Ltd.*, IPR2012-00022, at 51 (P.T.A.B. Sept. 2, 2014).

86 35 U.S.C. § 314(a); 37 C.F.R. § 42.108(c).

87 35 U.S.C. § 316(a)(5)(B); *Garmin Int’l, Inc. v. Cuozzo Speed Techs. LLC*, No. IPR2012-00001, at 6–7 (P.T.A.B. Mar. 5, 2013). *Garmin* was a decision on a motion for additional discovery, setting out a five-part test, which looks, among other things, at the probability (not possibility) of gaining useful information and the burden in terms of time, money, and human resources. *Id.* at 6–7.

88 Matal, *supra* note 7, at 628–32.

89 *See, e.g.*, 157 CONG. REC. S1053 (daily ed. Mar. 1, 2011) (statement of Sen. Schumer).

intended to sunset.⁹⁰ Presumably, by September 16, 2020, anyone affected by these questionable patents will have had time to challenge them. As with IPRs, claims in both first-to-file and first-to-invent patents can be challenged; as with PGRs, the challenge can be on any of the grounds that are denominated defenses to an infringement action.⁹¹

CBMs can be brought any time in the life of the patent, but the patent holder is arguably protected from harassment in that a petition may be instituted only if the petitioner, its real party in interest, or privy has been sued for, or charged with, infringement and is not estopped by a prior action.⁹² Furthermore, only the holders of “covered business method patent[s]”⁹³ are vulnerable. Presumably the patents whose validity is most questionable are the ones most often asserted by NPEs. These are defined as patents that claim “a method or corresponding apparatus for performing data processing or other operations used in the practice, administration, or management of a financial product or service, except that the term does not include patents for technological inventions.”⁹⁴ The PTO determines whether a patent is a technological innovation by considering, on a case-by-case basis, “whether the claimed subject matter as a whole recites a technological feature that is novel and unobvious over the prior art; and solves a technical problem using a technical solution.”⁹⁵ These limitations may appear to narrow the set of challenges that can be considered. Nevertheless, the PTAB has shown itself willing to consider a fairly wide variety of cases.⁹⁶ Furthermore, once it finds one claim to be within the definition, the PTAB can consider challenges to other claims in the patent.⁹⁷

On the whole, the conduct of proceedings for CBMs mirrors that for IPRs.⁹⁸ However, because CBMs can mainly be brought in cases where litigation is pending or threatened, the procedures include a special provision on

90 AIA § 18(a)(3), Pub. L. No. 112-29, 125 Stat. 284 (2011) (referring to CBMs as the “transitional program for covered business methods patents”).

91 37 C.F.R. § 42.304(b)(1). Despite the language, the Federal Circuit rejected an argument that the PTAB cannot consider subject matter challenges under AIA § 101 because that provision is not mentioned in § 282(b) of the statute as a defense. *Versata Dev. Grp., Inc. v. SAP Am., Inc.*, 793 F.3d 1306, 1330 (Fed. Cir. 2015) (“It would require a hyper-technical adherence to form rather than an understanding of substance to arrive at a conclusion that § 101 is not a ground available to test patents under either the PGR or § 18 processes.”).

92 AIA § 18(a)(1)(B); 37 C.F.R. § 42.302.

93 37 C.F.R. § 42.301.

94 AIA § 18(d)(1); 37 C.F.R. § 42.301(a).

95 37 C.F.R. § 42.301(b).

96 See *infra* text accompanying notes 150–151.

97 See *Versata Dev. Grp., Inc. v. SAP Am., Inc.*, 793 F.3d 1306, 1327 (Fed. Cir. 2015) (“We accept the PTAB’s use of claim 17 as representative.”); see also *Liberty Mut. Ins. Co. v. Progressive Cas. Ins. Co.*, No. CBM2012-00003, at 7 (P.T.A.B. Feb. 11, 2014) (“Section 18(d)(1) of the AIA sets forth a single threshold based on just one claim—the satisfaction of which qualifies an entire patent as eligible for review . . .”).

98 See 37 C.F.R. § 42.300.

stays of trial court actions. According to the statute, trial courts must determine

- (A) whether a stay, or the denial thereof, will simplify the issues in question and streamline the trial;
- (B) whether discovery is complete and whether a trial date has been set;
- (C) whether a stay, or the denial thereof, would unduly prejudice the non-moving party or present a clear tactical advantage for the moving party; and
- (D) whether a stay, or the denial thereof, will reduce the burden of litigation on the parties and on the court.⁹⁹

There is a right to an immediate interlocutory appeal from the trial court's decision and this may be *de novo* to ensure consistent application.¹⁰⁰ In its first decision involving this provision, *VirtualAgility Inc. v. Salesforce.com, Inc.*, the Federal Circuit reversed the denial of a stay, criticized the trial court for reviewing the PTAB's determination that it was more likely than not that one claim was not patentable, and stressed the need to consider whether the stay would simplify the issues and streamline the trial.¹⁰¹

Unlike PGRs and IPRs, the estoppel provision for CBMs is narrow. Upon issuance of a final written decision, the petitioner or its real party in interest may not later assert invalidity on any ground *raised*—not any ground that reasonably could have been raised—during the proceeding.¹⁰² The estoppel applies to district court and ITC proceedings, but the statute makes no mention of subsequent proceedings in the PTO. Nor does it mention the petitioner's privies.

II. USE OF THE PROCEDURES

In a sense, the numbers speak volumes. Despite the fears that the estoppel provision or collective-action problems would discourage use of these procedures, IPRs and CBMs have proven extremely popular. The number of petitions is impressive. Near the two-year mark, the statistics were as follows:

99 AIA § 18(b)(1).

100 *Id.* § 18(b)(2).

101 *VirtualAgility Inc. v. Salesforce.com, Inc.*, 759 F.3d 1307, 1314 (Fed. Cir. 2014); *see also* *Benefit Funding Sys. LLC v. Advance Am. Cash Advance Ctrs. Inc.*, 767 F.3d 1383 (Fed. Cir. 2014) (using the provision to affirm the granting of a stay). The Federal Circuit also reversed a decision denying a stay in *Versata Software, Inc. v. Callidus Software, Inc.*, 771 F.3d 1368 (Fed. Cir. 2014). Interestingly, the parties then settled and the decision was vacated. *Versata Software, Inc. v. Callidus Software, Inc.*, 780 F.3d 1134 (Fed. Cir. 2015).

102 AIA § 18(a)(1)(D).

TABLE 1 NUMBER OF AIA PETITIONS (AS OF 9/11/14)¹⁰³

FY	Total	IPR	CBM	PGR
2012	25	17	8	-
2013	563	514	48	-
2014	1,406	1,240	159	2
Cumulative	1,994	1,771	215	1

Even more revealing than the number of cases have been the dispositions. Initially, around 85% of the claims challenged in an instituted IPR were cancelled; that figure was 100% for CBMs.¹⁰⁴ While these rates appear to be dropping for IPRs,¹⁰⁵ a study by Brian Love and Shawn Ambwani shows that over the first two years, petitioners were extremely successful:

- The PTAB grants—or “institutes”—IPR petitions for at least one challenged claim 84 percent of the time;
- Among instituted IPRs, *all* challenged claims are instituted 74 percent of the time;
- Among IPRs that reach a final decision on the merits, *all* instituted claims are invalidated or disclaimed more than 77 percent of the time.¹⁰⁶

103 PATENT TRIAL & APPEAL Bd., AIA PROGRESS STATISTICS (AS OF 9/11/14) 1 (2014), http://www.uspto.gov/ip/boards/bpai/stats/aia_statistics_091114.pdf. The PTO did not provide numbers for the two-year mark (September 16, 2014). However, the fiscal year runs from October 1 through September 30 and numbers were published for fiscal year 2014. They show that by September 30, 2014, seventy more IPRs and eighteen more CBMs had been filed.

104 See CYRUS A. MORTON & DAVID A. PRANGE, *Is the PTAB a Death Sentence for Patent Rights?*, ROBINS KAPLAN LLP (June 19, 2014), <http://www.rkmc.com/resources/articles/is-the-ptab-a-death-sentence-for-patent-rights>. Morton and Prange note that

Through May 2014 . . . :

- In the PTAB’s first 67 final written decisions, only 9 of the patents submitted for review have emerged unscathed.
- Out of the 1,093 claims addressed by those 67 decisions, only 231 claims survived, resulting in a survival rate of about 21 percent.
- Patent owners have also been largely unsuccessful in trying to introduce claim amendments. In 24 motions to amend, only one has been successful (and the successful patent owner was the United States government).

Id.

105 See generally TONY DUTRA, *America Invents Act Post-Grant Oppositions After Two Years: Benefit or ‘Death Squad’?*, BNA PAT. TRADEMARK & COPYRIGHT L. DAILY, Sept. 19, 2014; see also U.S. PATENT & TRADEMARK OFF., INTER PARTES REVIEW PETITIONS TERMINATED TO DATE (AS OF 9/4/2014) (2014), http://www.uspto.gov/ip/boards/bpai/stats/inter_partes_review_petitions_terminated_update_20140904.pdf (suggesting that as of September 4, 2014, only 12% of all claims challenged in an IPR were cancelled); DANIEL F. KLADOWSKI, *Claim and Case Disposition*, FINNEGAN, <http://www.aiablog.com/claim-and-case-disposition/> (showing that as of August 1, 2015, 74.49% of claims on which an IPR was instituted were cancelled and that 94.89% of the claims on which CBMs were instituted were cancelled).

106 Love and Ambwani, *supra* note 2, at 94.

Not surprisingly, over time, the number of settlements has increased. By close to the two-year mark, the figures were as follows:

TABLE 2 AIA TRIALS INSTITUTED/DISPOSALS (AS OF 9/11/14)¹⁰⁷

		Trials Instituted	Joinders	Denials	Total Decisions Instituted	Disposals			
						Settled	FWD*	RAJ**	Other***
I P R	F Y 1 3	167	10*	26	203	38	-	2	1
	F Y 1 4	509	15*	167	691	165	114	35	1
C B M	F Y 1 3	14	-	3	17	3	1	-	-
	F Y 1 4	74	1*	25	100	26	11	1	2

* Final Written Decisions on the merits.

** Judgments based on Request for Adverse Judgment.

*** Includes terminations due to dismissal.¹⁰⁸

While these statistics speak loudly about the public's eagerness and ability to use these procedures to "weed out" bad patents, it is more difficult to interpret what the numbers mean from a normative standpoint. To some, they suggest that the Board is out of control. As Randall Rader, once chief judge of the Federal Circuit, put it, the judges of the PTAB are "acting as death squads, killing property rights."¹⁰⁹ Or in the words of two bloggers,

¹⁰⁷ See PATENT TRIAL & APPEAL BD., *supra* note 103. By the end of fiscal year 2014, the number of IPR settlements increased by forty-five; there was one additional CBM settlement. See also Carlson & Migliorini, *supra* note 2, at 106 (suggesting that the invalidation rate in the new proceedings is much higher than in the reexamination proceedings that these new procedures augment (citing Joseph D. Cohen, *What's Really Happening in Inter Partes Reexamination*, 87 J. PAT. & TRADEMARK OFF. SOC'Y 207, 217 (2005))).

¹⁰⁸ It is somewhat difficult to determine the number of settlements from the PTO figures because some cases that settled are marked "no institution" on the PTAB Portal. See, e.g., Oracle Corp. v. Cmty. United IP, LLC, No. CBM2013-00015 (P.T.A.B. July 25, 2013) (termination of proceeding).

¹⁰⁹ Tony Dutra, *Rader Regrets CLS Bank Impasse, Comments on Latest Patent Reform Bill*, BNA PAT. TRADEMARK & COPYRIGHT L. DAILY, Oct. 29, 2013.

the PTAB is “where patent claims go to die.”¹¹⁰ More temperately, after comparing cancellation rates in IPRs to invalidation rates in court and considering the number of claims cancelled in IPRs that had previously survived ex parte reexamination,¹¹¹ Gregory Dolin concluded that it is “too easy to invalidate a duly issued patent” in an IPR. He called the CBM statistics “even more staggering.”¹¹²

But the numbers can be understood in a very different way. Before the PTAB can issue a final written decision cancelling claims, it must decide whether to institute a proceeding. The standard for determining whether to institute, although slightly different for the three procedures, is essentially whether it is more probable than not that at least one challenged claim is unpatentable. Since the preponderance of the evidence standard for determining whether a claim *should* be cancelled is also, essentially, whether it is more probable than not invalid, the high invalidation rate is basically a reflection of the PTAB’s ability to forecast correctly how it will decide on at least one claim. Because the panel that decides whether to institute also decides the case on the merits, a strong correlation is to be expected.¹¹³ This is especially so because the institution decisions are far from pro forma: they are often as long as the merits decision, cover the same issues (claim construction is often central), and are as thoughtful and probing of the arguments as the decisions on the merits.¹¹⁴ Admittedly, once the PTAB decides one claim may be invalid, it can entertain challenges to other claims as well. But it need not hear *every* claim the petitioner seeks to cancel. Partial institutions are possible, and in practice, the PTAB screens out claims that appear to be valid at the institution stage. That is, in deciding whether to institute, the

110 Michelle Carniaux & Michael E. Sander, *Claims Can Survive Inter Partes and Covered Business Method Review (But Few Do)*, IPR BLOG (Apr. 7, 2014), <http://interpartesreview-blog.com/claims-can-survive-inter-partes-covered-business-method-review/>.

111 See Gregory Dolin, *Dubious Patent Reform*, 56 B.C. L. REV. 881, 926–27 (2015) (citing John R. Allison & Mark A. Lemley, *Empirical Evidence on the Validity of Litigated Patents*, 26 AIPLA Q.J. 185, 205–06 (1998)); Shawn P. Miller, *Where’s the Innovation: An Analysis of the Quantity and Qualities of Anticipated and Obvious Patents*, 18 VA. J.L. & TECH. 1, 6–7 (2013).

112 Dolin, *supra* note 111, at 926, 930.

113 The PTO is considering a pilot program in which institution decisions would be made by only one judge; if that judge decides to institute, two new judges would be added to decide the case. See Lee, *supra* note 37. Such a procedure would benefit from continuity and also give a greater appearance of impartiality; it will be interesting to see if it leads to a lower rate of cancellation.

114 To take two examples, arbitrarily chosen, the institution decision in *SAP America, Inc. v. Versata Development Group, Inc.* was forty-four pages long. No. CBM2012-00001 (P.T.A.B. Jan. 9, 2013) (institution decision). In the same case, the final written decision was thirty-five pages. *Id.* (P.T.A.B. June 11, 2013). The institution decision in *U.S. Bancorp v. Retirement Capital Access Mgmt. Co.* was fifteen pages. No. CBM2013-00014 (P.T.A.B. Sept. 20, 2013) (institution decision). There, the final written decision was twenty-one pages. *Id.* (P.T.A.B. Aug. 22, 2014).

PTAB often considers every claim and every ground to determine whether each claim is more likely than not unpatentable on each alleged ground.¹¹⁵

Along the same lines, CBMs cannot be instituted if the claim as a whole is drawn to a “technological feature that is novel and unobvious over the prior art; and solves a technical problem using a technical solution.”¹¹⁶ Because many business-method claims involve fairly abstract ideas tied only to a general-purpose computer, and, per the Supreme Court, can only be considered patentable subject matter if they contain an “inventive concept,”¹¹⁷ the “technical solution” requirement, although not the same as the “inventive concept” test, will filter out some subject-matter challenges that would be losers on the merits.¹¹⁸

It is also important to keep in mind that the claims challenged are not always independent of one another. Depending on their relationship and the grounds considered, cancellation of some claims may be highly likely to lead to the cancellation of others.¹¹⁹ For example, a newly revealed piece of

115 37 C.F.R. § 42.108(a) (2014); *id.* § 42.208 (permitting the Board to institute on only some claims and to refuse to consider all asserted grounds for invalidation); *id.* § 42.300; *see also* Bank of Am., N.A. v. Intellectual Ventures II LLC, No. CBM2014-00031 (P.T.A.B. Aug. 18, 2014) (institution decision) (instituting on nine of eighteen claims challenged). The PTAB then granted the patent holder’s motion for adverse judgment on all challenged claims.

116 37 C.F.R. § 42.301(b). The Federal Circuit agreed with the regulation’s implementation of the statute. *Versata Dev. Grp., Inc. v. SAP Am., Inc.*, 793 F.3d 1306, 1335 (Fed. Cir. 2015).

117 *See* *Alice Corp. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2355 (2014) (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1294 (2012)).

118 *See, e.g.*, *Metavante Corp. v. Checkfree Corp.*, No. CBM2013-00031 (P.T.A.B. Dec. 23, 2013) (institution decision using similar criteria to decide whether the invention is a covered business method and whether the claims are more likely than not drawn to invalid subject matter and claims that include sufficient elements to avoid institution); *see also* *Versata*, 793 F.3d at 1326–27 (considering whether the challenged claim was technological in nature).

119 Dolin gives the example of seven cases, which all involved the same family of patents, where the challenges arguably “rose and fell together.” Dolin, *supra* note 111, at 930 (citing *Liberty Mut. Ins. Co. v. Progressive Cas. Ins. Co.*, No. CBM2013-00004 (P.T.A.B. Mar. 13, 2014); *Liberty Mut. Ins. Co. v. Progressive Cas. Ins. Co.*, No. CBM2012-00010 (P.T.A.B. Feb. 24, 2014); *Liberty Mut. Ins. Co. v. Progressive Cas. Ins. Co.*, No. CBM2013-00002 (P.T.A.B. Feb. 24, 2014); *Liberty Mut. Ins. Co. v. Progressive Cas. Ins. Co.*, No. CBM2013-00009 (P.T.A.B. Feb. 11, 2014); *Liberty Mut. Ins. Co. v. Progressive Cas. Ins. Co.*, No. CBM2012-00003 (P.T.A.B. Feb. 11, 2014); *Liberty Mut. Ins. Co. v. Progressive Cas. Ins. Co.*, No. CBM2012-00004 (P.T.A.B. Jan. 23, 2014), *aff’d*, *Progressive Cas. Ins. Co. v. Liberty Mut. Ins. Co.*, No. 2014-1466, 2015 WL 5004949 (Fed. Cir. Aug. 24, 2015); *Liberty Mut. Ins. Co. v. Progressive Cas. Ins. Co.*, No. CBM2012-00002 (P.T.A.B. Jan. 23, 2014)). These disputes all involved Liberty Mutual Insurance Company’s challenge to a set of patents owned by Progressive Casualty Insurance Company; the PTAB decisions were all affirmed in a single nonprecedential opinion. *Progressive Cas. Ins. Co. v. Liberty Mut. Ins. Co.*, No. 2014-1466, 2015 WL 5004949 (Fed. Cir. Aug. 24, 2015). CBM2013-00002 alone involved fifty-nine claims, fifty-six of which were cancelled on non-obviousness grounds and the other three of which were voluntarily cancelled. *Liberty Mut. Ins. Co. v. Progressive Cas. Ins. Co.*, No. CBM2013-00002, at 1–2 (P.T.A.B. Feb. 24, 2014).

prior art that anticipates a dependent claim is likely to anticipate the independent claim on which it depends and other dependent claims as well.¹²⁰ Once a claim or a facet of prior art is interpreted in a particular way, the interpretation can have an adverse impact on an entire family of patents.¹²¹ Additionally, multiple parties can file challenges to the same claims.¹²² This practice inflates the cancellation rate. It may also be abusive. That issue is discussed in Part IV.¹²³

It is also misleading to compare the outcome of litigation with the results of PTAB review. The preponderance standard for determining invalidity in PTAB challenges, which is statutorily mandated, can easily lead to the cancellation of claims that Rader, as a Federal Circuit judge applying a clear and convincing standard, would have upheld and which may, indeed, have been previously upheld by district courts.¹²⁴ As important is the difference in the approach to claim interpretation. The PTAB gives unexpired patent claims their broadest reasonable interpretation; in court, they are given their ordinary customary meaning, which is generally narrower.¹²⁵ The broader the claim, the more likely the challenger can find prior art to invalidate it on novelty or obviousness grounds,¹²⁶ the more abstract it is likely to read,¹²⁷

120 Cf. *In re Cuozzo Speed Techs., LLC*, 793 F.3d 1268, 1275 (Fed. Cir. 2015) (noting the relationship between dependent and independent claims).

121 See, e.g., *Micron Tech., Inc. v. Bd. of Trs. of Univ. of Ill.*, No. IPR2013-00005 (P.T.A.B. Mar. 10, 2014) (determining obviousness of a product-by-process claim by the characteristics of the product without regard to the process, and then using the same prior art to invalidate eight different claims related to one patent), *aff'd*, *Bd. of Trs. of Univ. of Ill. v. Micron Tech., Inc.*, 596 F. App'x 923 (Fed. Cir. 2015).

122 See, e.g., *Google, Inc. v. PersonalWeb Techs., LLC*, No. IPR2014-00977, at 2 (P.T.A.B. Oct. 30, 2014) (decision denying joinder and denying institution of IPR review; original petition filed June 18, 2014, challenging the same claims asserted by EMC on Pat. No. 6,415,280); *EMC Corp. v. PersonalWeb Techs., LLC*, No. IPR2013-00083 (P.T.A.B. May 15, 2014) (invalidating claims 36 and 38 of Pat. No. 6,415,280).

123 But see Benjamin and Rai, *supra* note 19, at 326–27 (suggesting that allowing multiple challenges can reduce the collective action problem).

124 See, e.g., *SAP Am., Inc. v. Versata Dev. Grp., Inc.*, No. CBM2012-00001, at 18 (P.T.A.B. June 11, 2013) (refusing to adopt district court's claim construction and then finding claims unpatentable as abstract), *aff'd*, *Versata Dev. Grp., Inc. v. SAP Am., Inc.*, 793 F.3d 1306 (Fed. Cir. 2015); *Interthinx, Inc. v. CoreLogic Sols., LLC*, No. CBM2012-00007, at 6 (P.T.A.B. Jan. 30, 2014) (holding that prior adjudication does not estop challenger because the different standards mean that the issues are not the same in litigation and administrative adjudication), *appeal dismissed sub nom.*, *In re CoreLogic Sols., LLC*, 571 F. App'x 950 (Fed. Cir. 2014). The problem is further discussed *infra*, text accompanying notes 296–304.

125 *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc) (holding that “the ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application”).

126 See, e.g., *Liberty Mut. Ins. Co. v. Progressive Cas. Ins. Co.*, No. CBM2013-00004, at 34 (P.T.A.B. Mar. 13, 2014) (holding that because the claim was interpreted to include processed data and not just raw data, prior art disclosing processed data invalidated the claim), *aff'd*, *Progressive Cas. Ins. Co. v. Liberty Mut. Ins. Co.*, No. 2014-1466, 2015 WL

and the less likely it is to be fully supported by the written description, adequately enabled, and distinctly claimed.¹²⁸

Most important from a normative perspective is that many claims deserve to die. Dolin makes much of the fact that 15% of the claims cancelled in an IPR had survived a challenge in *ex parte* reexamination.¹²⁹ Because he fails to say which IPRs these are, it is impossible to know for sure what happened, but it is worth noting that *ex parte* reexaminations, like initial examination, are *ex parte*—that is, without an opportunity for a challenger to respond to the patent holder’s arguments. *Inter partes* review corrects the asymmetry between the patent holder’s and the patent office’s knowledge of the field and the invention; the greater number of invalidations in CBMs and IPRs can be read as affirming the suspicion that *ex parte* procedures are not fully effective at flushing out bad claims.

More to the point, Dolin’s reexaminations may have preceded the Supreme Court’s articulation of the concern that Federal Circuit jurisprudence was producing patents that “impede rather than ‘promote the Progress of Science and useful Arts.’”¹³⁰ In the years following this statement by Justice Breyer, the Supreme Court reworked the law on many key issues of patentability. In *KSR International Co. v. Teleflex Inc.*,¹³¹ the question was non-obviousness, which requires the invention to be beyond the grasp of a person with ordinary skill in the art.¹³² The Federal Circuit had imposed a requirement that the challenger show a “teaching, suggestion, or motivation” to combine prior art references.¹³³ But the Supreme Court rejected the “errors” of the Federal Circuit and its “rigid” rule. It stressed that “a person of ordinary skill is also a person of ordinary creativity, not an automaton,”¹³⁴ that “[t]he obviousness analysis cannot be confined by a formalistic conception of the words teaching, suggestion, and motivation, or by overemphasis

5004949 (Fed. Cir. Aug. 24, 2015); *Intellectual Ventures Mgmt., LLC v. Xilinx, Inc.*, No. IPR2012-00018 (P.T.A.B. Feb. 10, 2014) (noting that the determination of obviousness turned on the definition of “inside”).

127 See, e.g., *Fidelity Nat’l Info. Servs., Inc. v. Cashedge, Inc.*, No. CBM2013-00028 (P.T.A.B. Dec. 23, 2013) (institution decision deciding whether the claims are drawn to patentable subject matter premised on a reading of claim that reads out its nonabstract elements).

128 See, e.g., *SAP Am., Inc. v. Lakshmi Arunachalam*, No. CBM2013-00013, at 11 (P.T.A.B. Sept. 18, 2014) (construing the term “routed transactional data structure” in a manner that leads to a determination of indefiniteness). The breadth of the claim may also determine whether an institution decision is made. See *Petition for Post-Grant Review of U.S. Patent No. 8,684,420, LaRose Indus., LLC v. Choon’s Design, Inc.*, No. PGR2014-00008 (P.T.A.B. Aug. 5, 2015); *supra* note 63. The propriety of using this standard is discussed *infra*, text accompanying notes 216–27.

129 Dolin, *supra* note 111, at 927.

130 *Lab. Corp. of Am. Holdings v. Metabolite Labs., Inc.*, 548 U.S. 124, 126 (2006) (Breyer, J., dissenting from dismissal of certiorari) (quoting U.S. CONST. art. I, § 8, cl. 8).

131 550 U.S. 398 (2007).

132 35 U.S.C. § 103 (2012).

133 See *KSR*, 550 U.S. at 399.

134 *Id.* at 421.

on the importance of published articles and the explicit content of issued patents,¹³⁵ that “it often may be the case that market demand, rather than scientific literature, will drive design trends,”¹³⁶ and that persons of ordinary skill in the art will repurpose solutions to one problem in order to solve a different problem.

By the same token, in a series of four cases, beginning with *Bilski v. Kappos* and ending with *Alice Corp. v. CLS Bank*,¹³⁷ the Court rejected the Federal Circuit’s view that any invention that produces a useful, concrete, and tangible result is drawn to patentable subject matter, as well as its rule that any invention that constitutes a machine or effectuates a physical transformation is statutory subject matter. Instead, the Court emphasized that laws of nature, phenomena of nature, and abstract ideas are not patentable (although abstract claims can be “saved” if they include an “inventive concept”).¹³⁸ And in *Nautilus, Inc. v. Biosig Instruments, Inc.*, the Supreme Court rejected the Federal Circuit’s rule that a claim is valid so long as it is not “insolubly ambiguous”; under the Court’s test, a “patent’s claims, [when] viewed in light of the specification and prosecution history, [must] inform those skilled in the art about the scope of the invention with reasonable certainty.”¹³⁹

Given the fundamental nature of these changes to patent law, it is not surprising that the PTAB would institute review and then invalidate many claims issued, reexamined, or litigated before these cases were handed down. Indeed, the technological distribution of the cases subject to review is suggestive:

135 *Id.* at 419.

136 *Id.*

137 *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347 (2014); *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107 (2013); *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289 (2012); *Bilski v. Kappos*, 130 S. Ct. 3218 (2010).

138 *Alice Corp.*, 134 S. Ct. at 2355, 2357 (citing *Mayo Collaborative Servs.*, 132 S. Ct. at 1294).

139 *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2129 (2014). There are questions as to whether the standard for indefiniteness used in a court challenge is the same as the one that applies pre-issuance and, if so, which standard applies to post-grant opposition procedures. See Erika H. Arner et al., *Section 112(b) and the PTAB: Is the Legal Standard for Indefiniteness Itself Indefinite?*, 90 PAT. TRADEMARK & COPYRIGHT J. (BNA) 2335 (2015). As noted in connection with the standard for claim construction, efficiency will be vastly improved if the same standard were applied throughout. See *infra* text accompanying notes 215–14. Given the notice function of definiteness, it is particularly difficult to see why different standards should be used.

TABLE 3 AIA PETITION TECHNOLOGY BREAKDOWN (AS OF 9/11/14)¹⁴⁰

Technology	Number of Petitions	Percentage
Electrical/Computer	1,432	71.8%
Mechanical	308	15.5%
Chemical	134	6.7%
Bio/Pharma	112	5.6%
Design	8	0.4%

The vast majority of the cases are in the electrical/computer sector, where the rejection of the “useful, concrete, and tangible result” and the “machine or transformation” tests are most significant, and in mechanicals, the field of the invention in *KSR* (and arguably, *Nautilus*). The decisions themselves rely heavily on the recent Supreme Court cases. It is also noteworthy that in a 2013 study, Shawn Miller showed that as with the PTAB, courts are more likely to invalidate patents in the areas directly affected by *KSR* and *Bilski*.¹⁴¹ Furthermore, the cancellation rate is comparable to the findings of a 2014 German study, where researchers estimated that around 75% of German patents are at least partially invalid.¹⁴²

Selection effects must also be considered. Unauthorized users have three shots at retaining freedom to operate: it is possible that the patent holder will fail to sue; that if the patent holder does sue, the patent will be invalidated; or that in the suit, the user’s activity will be found noninfringing. At the PTAB, there is only one possibility: invalidation.¹⁴³ Accordingly, challengers are likely to use these proceedings only when the case for invalidity is extremely strong. Table 2, which shows a fairly high number of cases in which the *patent holder* requested an adverse judgment,¹⁴⁴ supports the notion that in the mix of losses are many claims that even the patent holder understood to be defective. Finally, it is not insignificant that, as with the cancellation rate, the percentage of cases in which the PTAB has decided to institute proceedings appears to be declining.¹⁴⁵ This suggests that petition-

140 PATENT TRIAL & APPEAL BD., *supra* note 103.

141 Miller, *supra* note 111, at 35–36, 44.

142 Joachim Henkel & Hans Zischka, Why Most Patents are Invalid—Extent, Reasons, and Potential Remedies of Patent Invalidity (Aug. 7, 2014) (unpublished manuscript), http://www.law.berkeley.edu/files/Henkel_Joachim_IPSC_paper_2014_20140813.pdf. See also Chien & Helmers, *supra* note 35, at 5 (noting that the invalidation percentage in the European Patent Office is 68% and in German revocation proceedings, 75%).

143 See, e.g., John R. Allison et al., *Our Divided Patent System*, 82 U. CHI. L. REV. 1073 (2015) (showing that patent holders’ rather low “definitive win rate” in court is due to a combination of invalidation and noninfringement findings).

144 By the end of fiscal year 2014, there was one additional request for an adverse judgment in a CBM and four in an IPR.

145 Scott McKeown calculated a very high institution rate as of July 17, 2014. Scott A. McKeown, *PTAB Dials Back Petitioner Success Rate*, PATENTS POST-GRANT (July 17, 2014), <http://www.patentspostgrant.com/ptab-dials-back-patent-challenger-success-rate>. By September 11, 2014, the PTO’s statistics suggest the rate had fallen. See Joseph Casino &

ers may have saved claims that were clearly invalid for the onset of these new procedures.

III. INTERACTION BETWEEN THE PTAB AND THE FEDERAL CIRCUIT

If it continues, the eagerness with which the new procedures have been embraced suggests that those who proposed these mechanisms were right: there are many advantages to channeling patent validity challenges back to the PTO. However, the ultimate success of the system depends heavily on the Federal Circuit's approach to reviewing PTAB decisions. This Part elaborates on the benefits and on their viability once the Federal Circuit begins to see more of these cases. But even if all potential benefits are realized, the procedures have significant costs. With three types of review, the system is complex and use of the procedures is not exactly cheap. Their two-year potential duration is less than the length of district court litigation, but there is no right to an expedited appeal. Accordingly, the total period of uncertainty could be almost as long as it is for litigation. These matters are discussed in Part IV.

A. Potential Benefits

The numbers reviewed in the previous Part demonstrate how effectively the PTAB is clearing questionable claims from the system. The potential impact is evident: these procedures can promote freedom to operate, facilitate settlement, lower the incidence of litigation, and curb NPE practice. With a workable procedure for issuing stays, they could also streamline litigation and make what goes on in the courtroom more efficient.¹⁴⁶ Moreover,

Michael Kasdan, *Trends from 2 Years of AIA Post-Grant Proceedings*, LAW360 (Sept. 29, 2014), <http://www.law360.com/articles/581512/trends-from-2-years-of-aia-post-grant-proceedings>; cf. Michael Fuller, *The PTAB May Be Taking a More Balanced Approach in Biotech and Pharmaceutical IPRs*, KNOBBE MARTENS (Mar. 23, 2015) <http://knobbe.com/news/2015/03/ptab-may-be-taking-more-balanced-approach-biotech-and-pharmaceutical-iprs-bloomberg-bna> (noting a 75% institution rate for fiscal year 2015). Still, it was high during the period of examination (82% overall for IPRs as of September 3, 2014, and 80% for CBMs as of that date). See *PTO Trials*, SIDLEY AUSTIN LLP (Sept. 3, 2014), <http://ptotrials.sidley.com/>. It is important to note that the institution rate is hard to calculate because only some claims in a given petition may be subjected to scrutiny and there are sometimes multiple petitions directed at the same claims. Note also that PTAB's categorization of the cases can be unclear. See *supra* text accompanying note 108; see also *Zetec, Inc. v. Westinghouse Elec. Co.*, No. IPR 2014-00384 (P.T.A.B. July 23, 2014) (institution decision refusing to institute because arguments were undeveloped).

146 While the hard line on stays taken in *VirtualAgility*, a CBM case, is not directly applicable to IPRs and PGRs, the Federal Circuit stressed the possibility that PTAB consideration would simplify trial. *VirtualAgility Inc. v. Salesforce.com, Inc.*, 759 F.3d 1307, 1314 (Fed. Cir. 2014). As the text below makes clear, however, presently, the multiplicity of these procedures can make it difficult for a trial court to determine the exact contours of a case or know when to dissolve stays and proceed to trial. See *infra* text accompanying notes 287-288, 306; see also, e.g., *Ultratec, Inc. v. Sorenson Commc'ns, Inc.*, No. 13-cv-346-bbc, 2015 WL 2248437 (W.D. Wis. May 13, 2015) (initially refusing to stay litigation for an IPR,

as Joseph Casino and Michael Kasdan have noted, “[t]he PTAB runs a tight ship.”¹⁴⁷ Discovery has been kept to a minimum and the PTAB has managed to keep within the time limits mandated. Indeed, Love and Ambwani found that the average pendency of IPR petitions within the PTAB is fifteen months.¹⁴⁸ Given the three years it can take to try a patent case in popular jurisdictions, speed can be an important benefit to using these proceedings.¹⁴⁹

As proponents hoped, the Board has taken its duty to protect the public interest seriously. Thus, it has adopted a broad understanding of what constitutes a “financial product” within the meaning of the transitional business method program¹⁵⁰ and what it means to be the object of an assertion in a CBM.¹⁵¹ At the same time, it has interpreted the limits on filing IPRs narrowly,¹⁵² taken a dim view of theories of assignor estoppel,¹⁵³ and adopted a skeptical approach to arguments that a claim is within the “technological innovation” exception to CBMs.¹⁵⁴ Many cases involve challenges to patents held by aggregators,¹⁵⁵ suggesting that the proceedings may have an impact

leading to a \$44 million judgment, which was finally stayed when the PTAB invalidated the relevant claims), *aff’d sub nom.*, *Ultratec, Inc. v. CaptionCall, LLC*, 611 F. App’x 720 (Fed. Cir. 2015).

147 Joseph Casino & Michael Kasdan, *Lessons from 2 Years of AIA Post-Grant Proceedings*, LAW360 (Sept. 30, 2014, 10:18 AM), <http://www.law360.com/articles/581513/lessons-from-2-years-of-aia-post-grant-proceedings>.

148 Love & Ambwani, *supra* note 2, at 99.

149 Casino & Kasdan, *supra* note 145.

150 See *Versata Dev. Grp., Inc. v. SAP Am., Inc.*, 793 F.3d 1306, 1325 (Fed. Cir. 2015) (“We agree with the USPTO that, as a matter of statutory construction, the definition of ‘covered business method patent’ is not limited to products and services of only the financial industry, or to patents owned by or directly affecting the activities of financial institutions such as banks and brokerage houses.”). For examples of the liberal view, see *Salesforce.com, Inc. v. VirtualAgility, Inc.*, No. CBM2013-00024, at 8 (P.T.A.B. Sept. 16, 2014) (illustrating a patent on a method of managing collaborative activity that can include financial aspects of an organization), and *Apple Inc. v. Sightsound Technologies, LLC*, No. CBM2013-00020, at 11–15 (P.T.A.B. Oct. 7, 2013) (institution decision concerning a method of distributing digital signals).

151 See, e.g., *SAP Am., Inc. v. Pi-Net Int’l, Inc.*, No. IPR2013-00195 (P.T.A.B. Sept. 19, 2013) (institution decision).

152 See, e.g., *Ariosa Diagnostics v. ISIS Innovation, Ltd.*, No. IPR2012-00022, at 14–16 (P.T.A.B. Sept. 2, 2014) (interpreting 35 U.S.C. § 315 as, among other things, permitting a party that had brought a declaratory judgment of noninfringement and—in response to a counterclaim of infringement—added a claim of invalidity to nonetheless maintain an IPR).

153 See, e.g., *Synopsys, Inc. v. Mentor Graphics Corp.*, No. IPR2012-00042, at 17 (P.T.A.B. Feb. 19, 2014).

154 See, e.g., *Groupon, Inc. v. Blue Calypso, LLC*, No. CBM2013-00033 (P.T.A.B. Dec. 19, 2013) (institution decision); *SAP Am., Inc. v. Pi-Net Int’l, Inc.*, CBM2013-00013, at 18–19 (P.T.A.B. Sept. 19, 2013) (institution decision).

155 Indeed, a disproportionate number of IPR settlements involve patents held by NPEs. See Scott A. McKeown, *Settlement Stats Show Trolls Fleeing PTAB Patent Challenges*, PATENTS POST-GRANT (Nov. 7, 2013), <http://www.patentspostgrant.com/settlement-stats-show>

on that practice and decrease the tax it is said to impose on innovation. Furthermore, the PTAB has allowed interested parties who may lack standing in court—suppliers are an example—to bring IPRs.¹⁵⁶ Interestingly, although the settlement rate has increased, the PTAB does not always terminate proceedings after the parties settle. Instead, it sometimes retains authority to issue a final written decision cancelling challenged claims.¹⁵⁷ Indeed, for strategic reasons (such as to avoid other invalidations), some patent holders have simply requested adverse judgment once review was instituted.¹⁵⁸

Most important, because the PTAB applies patentability criteria using the preponderance of the evidence standard for invalidation and the broadest reasonable interpretation of the claims, its decisions do what the examiners would have done had they had the PTAB's extra time, resources, and expertise, and had they understood the law as enunciated in recent Supreme Court interventions. Application of the law *nunc pro tunc* goes a longer way than litigation can towards safeguarding the public's interest in the free availability of technology that should not be privately controlled.¹⁵⁹

npes-fleeing-ptab-patent-challenge-proceedings (depicting that 75% of all 2013 IPR settlements involved NPEs); *see also, e.g.*, Bank of Am., N.A. v. Intellectual Ventures I LLC, No. CBM2014-00029 (P.T.A.B. May 19, 2015); Bank of Am., N.A. v. Intellectual Ventures II LLC, No. CBM2014-00031 (P.T.A.B. Aug. 18, 2014); Bank of Am., N.A. v. Intellectual Ventures I LLC, No. CBM2014-00028 (P.T.A.B. May 22, 2014) (institution decision); Bank of Am., N.A. v. Intellectual Ventures I LLC, No. CBM2014-00030 (P.T.A.B. May 22, 2014) (institution decision); Bank of Am., N.A. v. Intellectual Ventures II LLC, No. CBM2014-00033 (P.T.A.B. May 22, 2014) (institution decision); PNC Fin. Servs. Grp., Inc. v. Intellectual Ventures I LLC, No. CBM2014-00032 (P.T.A.B. May 22, 2014) (institution decision); Sony Corp. v. Tessera, Inc., No. IPR2012-00033 (P.T.A.B. Feb. 26, 2013) (institution decision); *see also* Love & Ambwani, *supra* note 2, at 94 (finding that institution rates for NPE-owned patents are higher than for other patents, although invalidation rates are lower).

156 *See, e.g.*, Hewlett-Packard Co. v. MCM Portfolio, LLC, No. IPR2013-00217 (P.T.A.B. Sept. 10, 2013); *see also* Microsoft Corp. v. DataTern, Inc., 755 F.3d 899, 904 (Fed. Cir. 2014) (“To the extent that Appellees argue that they have a right to bring the declaratory judgment action solely because their customers have been sued for direct infringement, they are incorrect.”). Standing to appeal is discussed *infra*, text accompanying notes 368–394.

157 *See, e.g.*, Interthinx, Inc. v. CoreLogic Sols., LLC, No. CBM2012-00007 (P.T.A.B. Jan. 30, 2014), *appeal dismissed sub nom.*, *In re* CoreLogic Sols., LLC, 571 F. App'x 950 (Fed. Cir. 2014).

158 *See, e.g.*, Google, Inc. v. Inventor Holdings, LLC, No. CBM2014-00003 (P.T.A.B. Sept. 12, 2014) (grant of adverse judgment).

159 In her dissent in *Cuozzo*, Judge Newman argued that the PTAB was meant to serve as a “surrogate for district court litigation.” *In re* Cuozzo Speed Techs., LLC, 793 F.3d 1268, 1284–85 (Fed. Cir. 2015) (Newman, J., dissenting); *see also In re* Cuozzo Speed Techs., 793 F.3d 1297, 1301 (Fed. Cir. 2015) (Prost, J., dissenting from denial of rehearing en banc). However, the statutory requirement that the PTAB apply the preponderance of the evidence rule suggests that providing a substitute, cheaper, route to litigation was not Congress's sole concern.

In the future, fear of the “death squads” (or, an efficient PTAB) may discourage patent prosecutors from drafting abstract or overly broad claims.¹⁶⁰

My reading of the cases suggests many more subtle ways in which the invigoration of patent review within the PTO could contribute meaningfully to patent jurisprudence and the administration of patent law. Like the BPAI it replaced, the PTAB is not bound by the Manual of Patent Examining Procedure or PTO Guidelines and thus it brings an independent analysis to bear on patentability questions.¹⁶¹ As noted earlier, the PTAB is staffed with experienced patent lawyers and each panel is meant to include someone with close knowledge of the field of the invention.¹⁶² The institution and final decisions reflect this expertise. The Board’s opinions are extremely well written and closely reasoned; their fluidity suggests deep immersion in both the technical facts of the cases and the law to be applied. In short, the Board is well-structured to add an important new voice to the development of patent jurisprudence.

Most obviously, the PTAB’s expertise can be exploited in a “preview” capacity. Many of the cases coming before the Board raise questions about implementing recent Supreme Court decisions. Consider, for example, definiteness. When the Supreme Court rejected the Federal Circuit’s “insolubly ambiguous” standard, it did not spell out exactly what it meant for a claim to be “precise enough to afford clear notice of what is claimed” while “tak[ing] into account the inherent limitations of language.”¹⁶³ The Federal Circuit’s attempt to anticipate *Nautilus* was a failure¹⁶⁴ and in the immediate aftermath, it considered the issue only twice, rather briefly.¹⁶⁵ Notably, oral argument in the remand of *Nautilus* suggested the court was having a very difficult time coming up with a workable approach;¹⁶⁶ ultimately, it basically reinstated its earlier opinion.¹⁶⁷ In contrast, the PTAB started citing the decision three weeks after it issued.¹⁶⁸ Repeated exposure to definiteness

160 See, e.g., Shana K. Cyr et al., *Preparing Pharma for Generics’ IPR Attacks*, 88 PAT. TRADEMARK & COPYRIGHT J. (BNA) 1220, 1221 (2014) (suggesting better prosecution to stave off challenges).

161 See, e.g., *Ex parte Bilski*, No. 2002-2257, 2006 WL 5738364, at *15 (B.P.A.I. Sept. 26, 2006); *In re Santarsiero*, No. 105,403, 83 U.S.P.Q.2d 1271, 1276 n.6 (B.P.A.I. May 31, 2006).

162 In addition, paralegal specialists are assigned to specific subject matter. To date, however, hiring has not depended on expertise in the subject matter and the staff has been underused. See U.S. DEP’T OF COMMERCE, REVIEW OF WASTE AND MISMANAGEMENT AT THE PATENT TRIAL AND APPEAL BOARD 11 (2014).

163 *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2128–29 (2014).

164 See *In re Packard*, 751 F.3d 1307, 1311 (Fed. Cir. 2014) (per curiam).

165 *Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1370–71 (Fed. Cir. 2014) (finding the claim indefinite); *Augme Techs., Inc. v. Yahoo! Inc.*, 755 F.3d 1326, 1340 (Fed. Cir. 2014). *Nautilus* was decided on June 2, 2014. 134 S. Ct. 2120.

166 See Tony Dutra, *Fed. Cir. Oral Argument Seeks More Precision on ‘Vague’ Patent Indefiniteness Standard*, 88 PAT. TRADEMARK & COPYRIGHT J. (BNA) 1681, 1681–82 (2014).

167 *Biosig Instruments, Inc. v. Nautilus, Inc.*, 783 F.3d 1374 (Fed. Cir. 2015).

168 *LaRose Indus., LLC v. Capriola Corp.*, No. IPR2013-00120, at 30–31 (P.T.A.B. June 26, 2014) (using the principle to interpret a claim).

problems in CBMs (and eventually in PGRs) is leading to the development of nuanced and context-specific standards. For example, in *SAP America, Inc. v. Lakshmi Arunachalam*, decided three months after *Nautilus*, the claims covered a method and apparatus for providing real-time, two-way transactions on the web.¹⁶⁹ To determine whether the term “routed transactional data structure” was indefinite, the Board engaged in a technical analysis of the specification’s teachings concerning how objects were transmitted over the network and focused considerable attention to the question of what a person of ordinary skill would understand, and in particular, whether a proprietary protocol referenced in the patent disclosed sufficient information to inform such a person of the scope of the claim.¹⁷⁰ While there is some uncertainty as to whether the PTAB should apply the same standard on this issue as courts, PTAB cases can still furnish something of a blueprint for deciding definiteness issues, particularly in the Internet arena, where sharper claims could help alleviate the trolling problem.¹⁷¹

Similarly, the law laid out in the four Supreme Court cases on patentable subject matter is hard to understand, especially with regard to the meaning of “conventional steps” and “inventive concept.” Yet the PTAB rendered decisions based on *Alice* within a few months of the decision.¹⁷² In these cases, the Board set out an analytical framework and did so in specific fields, such as the interactive web applications mentioned above.¹⁷³ Several decisions offer a methodology for thinking about what counts as a general purpose computer,¹⁷⁴ what constitutes more than a “conventional step” in the use of a general-purpose computer, and a way to consider abstractness in the context of computer implementation, including (as some commentators have suggested) by reference to what humans could accomplish on their own.¹⁷⁵ The PTAB tends to begin with a careful construction of the challenged claims; in contrast, the Federal Circuit has shown a willingness to dis-

169 No. CBM2013-00013, at 3 (P.T.A.B. Sept. 18, 2014).

170 *Id.* at 18–20.

171 See Arner et al., *supra* note 139. Construction of means-plus-function claiming has also created many interpretive difficulties. See Mark D. Janis, *Who’s Afraid of Functional Claims? Reforming the Patent Law’s § 112, ¶ 6 Jurisprudence*, 15 SANTA CLARA COMPUTER & HIGH TECH. L.J. 231, 281 (1999). The PTAB approach may similarly be helpful to courts struggling with the issue. See, e.g., *Blackberry Corp. v. MobileMedia Ideas LLC*, No. IPR2013-00016 (P.T.A.B. Feb. 25, 2014) (construing seven means plus function claims in proposed amendments).

172 See *U.S. Bancorp v. Ret. Capital Access Mgmt. Co.*, No. CBM2013-00014, at 10–12 (P.T.A.B. Aug. 22, 2014). *Alice* was handed down on June 19, 2014. *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347 (2014).

173 See *SAP*, No. CBM2013-00013, at 15–18; *U.S. Bancorp*, No. CBM2013-00014, at 12–20.

174 See, e.g., *LinkedIn Corp. v. AvMarkets Inc.*, No. CBM2013-00025, at 5 (P.T.A.B. Nov. 10, 2014) (discussing a general purpose computer and abstractness).

175 See *eBay, Inc. v. Paid, Inc.*, No. CBM2014-00127 (P.T.A.B. Sept. 30 2014) (institution decision); *U.S. Bancorp.*, No. CBM2013-00014 at 12, 14–15; *Interthinx, Inc. v. Corelogic Solutions, LLC*, No. CBM2012-00007, at 9–10 (P.T.A.B. Jan. 30, 2014), *appeal dismissed sub nom.*, *In re Corelogic Solutions, LLC*, 571 F. App’x 950 (Fed. Cir. 2014); see also *Ex parte Bilski*, No. 2002-2257, 2006 WL 5738364, at *2 (B.P.A.I. Mar. 8, 2006); Kevin Emerson

pense with that step, which, in some cases, may make patents more vulnerable in court than in the PTAB.¹⁷⁶

In some instances, the PTAB considers interstitial issues of fact or law that could have arisen in earlier cases, but did not. Examples include whether an SEC filing constitutes prior art.¹⁷⁷ Some arise out of the new procedures themselves, such as determining the relationships that give rise to privacy¹⁷⁸ or whether challenges based on subject matter limitations can be heard by the PTAB.¹⁷⁹ Others arise from the procedures, but could have relevance in the courtroom as well. An example is determining whether a claim is within the technical solution exception to CBMs, which (as suggested earlier) may sometimes help to decide certain subject matter cases in the wake of *Alice*.¹⁸⁰

The PTAB's preview capacity should also be extremely helpful as examiners apply the new rules on priority, prior art, and the grace period. For example, the AIA substantially changed the language of the novelty provision of the Patent Act, adding a new phrase—"or otherwise available to the public"—to describe art that invalidates a patent.¹⁸¹ The addition raises the question whether prior practice, which made some confidential uses and secret sales patent-barring, has been legislatively overruled.¹⁸² The PTO Guidelines suggests this is so,¹⁸³ but the PTO received numerous comments arguing that Congress did not mean to change the standard.¹⁸⁴ The issue is quite likely to arise first in a PGR, where the grant of a patent despite evidence of a secret sale could be challenged on the basis that the petition raises a "novel or unsettled legal question that is important to other patents or

Collins, *Prometheus Laboratories, Mental Steps, and Printed Matter*, 50 HOUS. L. REV. 391 (2012) (suggesting an approach based on the mental steps doctrine).

176 See *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 719 (Fed. Cir. 2014) ("No formal claim construction was required because the asserted claims disclosed no more than 'an abstract idea garnished with accessories' and there was no 'reasonable construction that would bring [them] within patentable subject matter.'" (alteration in original) (citing *Ultramercial, LLC v. Hulu, LLC*, No. CV 09-06918 RGK (PLAx), 2010 WL 3360098, at *6 (C.D. Cal. Aug. 13, 2010))).

177 *Liberty Mut. Ins. Co. v. Progressive Cas. Ins. Co.*, No. CBM2013-00009, at 18–19 (P.T.A.B. Feb. 11, 2014), *aff'd*, *Progressive Cas. Ins. Co. v. Liberty Mut. Ins. Co.*, No. 2014-1466, 2015 WL 5004949 (Fed. Cir. Aug. 24, 2015).

178 *Synopsis, Inc. v. Mentor Graphics Corp.*, No. IPR2012-00042, at 12–14 (P.T.A.B. Feb. 19, 2014).

179 *Versata Dev. Grp., Inc. v. SAP Am., Inc.*, 793 F.3d 1306, 1329–30 (Fed. Cir. 2015) (upholding the PTAB's determination that § 101 challenges could be heard in CBMs).

180 See, e.g., *id.* at 1326–27 (determining whether a claim falls within the technical solutions exception).

181 35 U.S.C. § 102(a) (2012).

182 See Robert P. Merges, *Priority and Novelty Under the AIA*, 27 BERKELEY TECH. L.J. 1023, 1046 (2012).

183 See Examination Guidelines for Implementing the First Inventor to File Provisions of the Leahy-Smith America Invents Act, 78 Fed. Reg. 11059, 11075 (proposed Feb. 14, 2013) (to be codified at 37 C.F.R. pt. 1).

184 See *id.* at 11062.

patent applications.”¹⁸⁵ As noted, the PTAB is not bound by examination guidelines and it would be of considerable value to have its independent judgment on these issues, even though the Federal Circuit will ultimately review the work.

Even regarding issues that arise repeatedly, there are many benefits to be derived from the PTAB’s closer contact with the field of the invention. Nonobviousness provides an example. As we saw, *KSR* stressed the creative powers of the person of ordinary skill in the art to take what is known and adapt or extend it to meet other needs. The issue of what this means in terms of what the prior art teaches and what the person of ordinary skill can do with it comes up in the Internet and software context in CBMs and on a particularly regular basis in IPRs, where nonobviousness is the main basis for challenge. Even the earliest cases show how effectively PTAB panels grapple with questions of nonobviousness law and fact. For example, in *Liberty Mutual Insurance Co. v. Progressive Casualty Insurance Co.*,¹⁸⁶ which involved Internet transactions, one question was whether the prior art on which the challenge relied must be enabling. Citing one Federal Circuit case saying it need not be enabling and a second case saying prior art is presumed to be enabled, the PTAB cut through to the real question: whether the art in fact taught an artisan how to practice the patented claim.¹⁸⁷ In another part of the opinion, it determined what people could do on the Internet, and what the design community was already able to accomplish at the time of the invention.¹⁸⁸ In *Garmin International, Inc. v. Cuozzo Speed Technologies LLC*,¹⁸⁹ a case about GPS devices, the PTAB demonstrated its approach to the questions of how a person of ordinary skill who was “not an automaton” would combine references when there is no explicit statement in the prior art suggesting combination and how such a person would deal with disclosures in patents that did not claim an invention dealing with the same problem facing the inventor.¹⁹⁰ The Board also considered (and rejected) a series of argu-

185 35 U.S.C. § 324(b).

186 No. CBM2012-00010 (P.T.A.B. Feb. 24, 2014), *aff’d*, *Progressive Cas. Ins. Co. v. Liberty Mut. Ins. Co.*, No. 2014-1466, 2015 WL 5004949 (Fed. Cir. Aug. 24, 2015).

187 *Id.* at 3, 24–25 (citing *In re Antor Media Corp.*, 689 F.3d 1282, 1292 (Fed. Cir. 2012); *Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313, 1355 (Fed. Cir. 2003)); *see also* *Liberty Mut. Ins. Co. v. Progressive Cas. Ins. Co.*, No. CBM2012-00004 (P.T.A.B. Jan. 23, 2014), *aff’d*, *Progressive Cas. Ins. Co. v. Liberty Mut. Ins. Co.*, No. 2014-1466, 2015 WL 5004949 (Fed. Cir. Aug. 24, 2015) (stressing that a reference is read for “everything it teaches” and not simply for the invention it describes).

188 *Liberty Mut. Ins. Co.*, No. CBM2012-00010, at 15–23 (P.T.A.B. Feb. 24, 2014).

189 No. IPR2012-00001 (P.T.A.B. Nov. 13, 2013), *aff’d sub nom.*, *In re Cuozzo Speed Techs., LLC*, 793 F.3d 1268 (Fed. Cir. 2015).

190 *Id.* at 5, 32–34, 35–36; *see also* *Kyocera Corp. v. Softview LLC*, No. IPR2013-00007 & IPR2013-00256, at 23 (P.T.A.B. Mar. 27, 2014), *aff’d*, *Softview LLC v. Kyocera Corp.*, 592 F. App’x 947 (Fed. Cir. 2015) (per curiam) (distinguishing between a suggestion to combine and what PHOSITA could do with another’s proof of concept); *Micron Tech., Inc. v. Bd. of Trs. of Univ. of Ill.*, No. IPR2013-00006, at 18–20 (P.T.A.B. Mar. 10, 2014), *aff’d*, *Bd. of Trs. of Univ. of Ill. v. Micron Tech., Inc.*, 596 F. App’x 923 (Fed. Cir. 2015).

ments on when an art discourages (“teaches away” from) the claimed invention, including arguments about the absence of affirmative statements on feasibility and cost.¹⁹¹ In *Microsoft Corp. v. Proxyconn, Inc.*, it discussed what constitutes “analogous art” to a system for data access in a packet switched network.¹⁹²

In addition, the PTAB has had to reconcile the parts of Federal Circuit law on nonobviousness that the Supreme Court has not directly reversed with the Court’s current approach to the issue. Thus, in *Kyocera Corp. v. Softview LLC*,¹⁹³ a case on Internet displays (such as HTML), the question was how to use the objective criterion of nonobviousness, which the Federal Circuit has mandated be considered in every nonobviousness case.¹⁹⁴ Reliance on these so-called “secondary considerations” (such as commercial success) to *support* a finding of patentability has been highly controversial.¹⁹⁵ It is also somewhat difficult to square with *KSR*’s rejection of rigid rules and its notion that commercial demand can *undermine* patentability by providing sufficient motivation to advance the art. In *Kyocera*, the PTAB lessened the tension by assigning to the patent holder a heavy burden of showing a nexus between commercial success and the patented feature. Further, it elaborated on what must be shown: “[P]roof that the sales were a direct result of the unique characteristics of the claimed invention.”¹⁹⁶

In many of these cases, the basic rules derive from Federal Circuit case law. However, the contextual use of the case law, the systematic nature of the inquiry, and the showing required of the party bearing the burden of proof will provide useful guidance to examiners.¹⁹⁷ As Federal Circuit Judge Raymond Chen put it:

191 *In re Cuozzo*, No. IPR2012-00001 at 36–38; *see also* *Illumina, Inc. v. Trs. of Columbia Univ.*, No. IPR2013-00011, at 24–25 (P.T.A.B. Mar. 6, 2014), *aff’d*, *Trs. of Columbia Univ. v. Illumina, Inc.*, No. 2014-1547, 2015 WL 4385761 (Fed. Cir. July 17 2015) (taking a hard line on what constitutes teaching away and taking a very skeptical approach to claims of no reasonable expectation of success); *Nichia Corp. v. Emcore Corp.*, No. IPR2012-00005, at 27–29 (P.T.A.B. Feb. 11, 2014), *aff’d*, *Emcore Corp. v. Nichia Corp.*, 599 F. App’x 959 (Fed. Cir. 2015) (taking a hard line on what constitutes teaching away).

192 Nos. IPR2012-00026 & IPR2013-00109, at 50 (P.T.A.B. Feb. 19, 2014), *rev’d on other grounds*, *Microsoft Corp. v. Proxyconn, Inc.*, 789 F.3d 1292 (Fed. Cir. 2015).

193 Nos. IPR2013-00004, -00257, at 31 (P.T.A.B. Mar. 27, 2014), *aff’d*, 592 F. App’x 949 (Fed. Cir. 2015).

194 *See, e.g.*, *Gambro Lundia AB v. Baxter Healthcare Corp.*, 110 F.3d 1573, 1579 (Fed. Cir. 1997).

195 *See, e.g.*, Robert P. Merges, *Commercial Success and Patent Standards: Economic Perspectives on Innovation*, 76 CALIF. L. REV. 803 (1988).

196 *Kyocera Corp. v. Softview LLC*, No. IPR2013-00007, -00256, at 32 (P.T.A.B. Mar. 27, 2014); *see also* *Apple, Inc. v. Sightsound Techs., LLC*, No. CBM2013-00020, at 43–44 (P.T.A.B. Oct. 7, 2014) (imposing a heavy burden on the patent holder to show the relevance of success); *Illumina, Inc.*, No. IPR2013-00011, at 40 (insisting that success cannot be the result of an unclaimed feature, or to a feature in the prior art).

197 *See also* Tim Bianchi, *AIA Post-Grant Practice Rapidly Integrates Federal Circuit and Board Decisions*, REEXAMLINK (June 1, 2013), <http://www.reexamlink.com/2013/06/aia-cbm-post-grant-practice-becomes-a-convergence-of-sap-v-versata-cbm-and-cls-bank-decision/> (sug-

I foresee an opportunity for these board decisions to assist in a forward-looking way to improve patent quality. The patent board will be developing a large body of data that can perhaps yield patterns or insights for what went right, or what went wrong during the initial examination process. And the agency can use those lessons learned to improve patent examination. In the next few years, the patent board will have created a rich source of in-house generated material the agency can potentially use to further improve the quality of patent examination.¹⁹⁸

PTAB decisions could be similarly helpful to district court judges. Indeed, the availability of detailed instruction from the PTAB could change the nature of Federal Circuit jurisprudence. Thus, one reason why the Federal Circuit tends to create rules that the Supreme Court regards as overly “rigid” may be that it is drawing bright lines that nontechnical trial judges can apply with ease, thereby effectuating its perceived mandate to ensure the uniform application of patent law.¹⁹⁹ The Supreme Court dislikes this approach because—like all rules—it will not lead to the right result in every case and perhaps also because, as in *KSR* and *Mayo*, errors tend to favor the patent holder. Furthermore, although the Supreme Court has never done so directly, one can question the Federal Circuit’s categorization of what constitutes a question of law and what constitutes a question of fact: Why, for example, is enablement a question of law and written description a question of fact when both are meant to guarantee the adequacy of disclosure?²⁰⁰ The answer may again be uniformity: by classifying heavily technical issues as legal questions, the court can review the district court’s resolution *de novo*.

Now that the PTAB is in the picture, the rigid rules and distorted classifications of questions as law or fact may not be needed, for the PTAB’s decisions spell out more clearly how factual issues should be determined and lay out detailed analyses for particularly difficult technologies. If parties begin to cite what Judge Chen calls the PTAB’s “patterns or insights,”²⁰¹ bright line rules and *de novo* review may become less necessary. As a result, the number

gesting that the PTAB will provide guidance on implementing Federal Circuit cases and giving the example of PTAB decisions applying the then-recent Federal Circuit opinion in *Alice*).

198 Tamlin Bason, *Judge Chen: Board Could Develop Rich Data Source that Will Help Improve Patent Quality*, 88 PAT. TRADEMARK & COPYRIGHT J. (BNA) 1676, 1676 (2014) (quoting Federal Circuit Judge Raymond T. Chen). Given these views, it is perhaps not surprising that the approach that Judge Chen has taken to abstractness is very close to that of the one the PTAB uses in its institution decisions. See *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014); *Apple Inc. v. SightSound Techs., LLC*, No. CBM2013-00021 (P.T.A.B. Oct. 8, 2013) (institution decision) (articulating in detail how the claims are drawn to a specific implementation of an abstract idea).

199 See Dreyfuss, *Learning, supra* note 22, at 798.

200 Compare *Transocean Offshore Deepwater Drilling, Inc. v. Maersk Contractors USA, Inc.*, 617 F.3d 1296, 1305 (Fed. Cir. 2010) (“Whether a claim satisfies the enablement requirement is a question of law that we review *de novo*.”), with *In re Bimeda Research & Dev. Ltd.*, 724 F.3d 1320, 1323 (Fed. Cir. 2013) (“Written description . . . is a question of fact.”).

201 Bason, *supra* note 198, at 1676 (quoting Federal Circuit Judge Raymond T. Chen).

of reversals could be reduced. And now that the Supreme Court has insisted that the Federal Circuit carefully distinguish between ultimate questions of law and subsidiary questions of fact, such reclassifications would also simplify trials and appeals.²⁰²

The cases suggest that the PTAB can also be helpful in reducing the effects of isolation. As many observers have noted, the Federal Circuit sometimes backslides into old practices.²⁰³ The PTAB could play a role in moderating that tendency. Once again, nonobviousness furnishes an example. As we saw, the Supreme Court has emphasized that people of ordinary skill are creative and not automatons. But in *K/S HIMPP v. Hear-Wear Technologies LLC*,²⁰⁴ the Federal Circuit limited the reach of the decision to the specific context of *KSR*, where the question was whether a person with ordinary skill could combine references without a specific suggestion to do so. Thus, it refused to consider an ordinary artisan creative enough to make use of an element not mentioned in the cited prior art (a plurality of prongs that provide a detachable mechanical and electrical connection), but which was publicly available at the time of the invention. The court held that ordinary knowledge in the field can be used only on “peripheral issues.”²⁰⁵ In his dissent, Judge Dyk argued that the inability of examiners to rely “on their expert knowledge and common sense about what is well known in the art” is inconsistent with the Supreme Court’s concern about rigid rules.²⁰⁶ Had the majority considered what is happening in the PTAB, it might have found the dissent more persuasive. The cases there show that the use of background knowledge can come up in many contexts, making it rather unlikely that the *KSR* Court intended to spawn satellite litigation on whether a particular circumstance was peripheral or central, or to limit consideration of an artisan’s creativity and other motivations to only certain issues.²⁰⁷

202 See *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831 (2015).

203 See, e.g., Benjamin & Rai, *supra* note 19, at 289–90 (noting backsliding with regard to the standard of review); Burstein, *supra* note 16, at 507 (discussing backsliding regarding standing); Douglas L. Rogers, *Federal Circuit’s Obviousness Test for New Pharmaceutical Compounds: Gobbledygook?* 20–21 (Ohio St. U. Pub. Law & Legal Theory Working Paper Series, No. 271, 2014), <http://ssrn.com/abstract=2486559> (noting backsliding on obviousness).

204 751 F.3d 1362 (Fed. Cir. 2014).

205 *Id.* at 1365–66.

206 *Id.* at 1367 (Dyk, J., dissenting). As Benjamin & Rai observe, arguments about specialized knowledge (and dissents by Judge Dyk) have a history in the Circuit. Benjamin & Rai, *supra* note 19, at 291–92.

207 See, e.g., *Corning Optical Commc’ns RF, LLC v. PPC Broadband, Inc.*, No. IPR2013-00347, at 22 (P.T.A.B. Nov. 21, 2014) (considering various techniques known by persons of ordinary creativity); *Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, No. IPR2013-00266, at 28 (P.T.A.B. Oct. 28, 2014) (finding improvement would have been predictable to one with ordinary skill in the art, as determined by *KSR*); *Ariosa Diagnostics v. ISIS Innovation Ltd.*, No. IPR2012-00022, at 36 (P.T.A.B. Sept. 2, 2014) (finding the ability of an ordinary artisan to perform operation in a manner that always produces a given result); *Intellectual Ventures Mgmt., LLC v. Xilinx, Inc.*, No. IPR2012-00020, at 9 (P.T.A.B. Feb. 11, 2014) (deciding tacit knowledge can be used in IPRs, even though they are statutorily

A less intuitive example is claim construction, where a strong argument can be made that the Federal Circuit should allow itself to be influenced by the PTAB. That is, it should abandon its reliance on the meaning the claim “would have to a person of ordinary skill in the art in question at the time of the invention”²⁰⁸ and instead adopt the practice of giving unexpired claims their broadest reasonable interpretation (BRI). To be sure, this use of the BRI is a PTO innovation. Unlike the standard for proving unpatentability, it is not statutorily imposed. It is by far the most controversial aspect of the administration of the three new procedures;²⁰⁹ indeed, bills pending before Congress would reject its use.²¹⁰ As we saw, using a broad interpretation leads to the invalidation of claims that would have been upheld in court (even on a preponderance of the evidence standard).²¹¹ This comes across as extremely unfair. Of course, if it were as easy to amend claims in CBMs, IPRs, and PGRs as it is to amend them during examination, the system would make some sense: the patent holder would retain exclusivity over advances that it had the right to protect. However in *Idle Free Systems, Inc. v. Bergstrom, Inc.*, the PTAB took a stringent approach to motions to amend: it put the burden of establishing patentability on the patent holder (in examination, the PTO would bear the burden of showing unpatentability).²¹² The patent holder must also set forth the knowledge of one skilled in the art and the closest prior art. Further, the amendment must respond directly to the reason the Board invalidated the original claim, and it must be narrower than the claim it replaces.²¹³ The *Idle Free* approach has led to very few successful amendments: as of the date of the Love and Ambwani study, the only amendment the PTAB granted in an IPR was one that was unopposed and filed by the United States.²¹⁴

limited to the consideration of patents and publications). *But see* Progressive Cas. Ins. Co. v. Liberty Mut. Ins. Co., No. 2014-1466, 2015 WL 5004949, *3 (Fed. Cir. Aug. 24, 2015) (suggesting the PTAB’s opinion would have benefited from more discussion on motivation to combine—one of the issues on which the *KSR* Court thought the Federal Circuit was too rigid).

208 Phillips v. AWH Corp., 415 F.3d 1303, 1313 (Fed. Cir. 2005).

209 See, e.g., John R. Kenny & Scott I. Forman, *The Broadest Reasonable Construction Standard and the Consideration of Claim Construction by a District Court at the Patent Trial and Appeal Board*, 88 PAT. TRADEMARK & COPYRIGHT J. (BNA) 1084 (2014); COAL. FOR 21ST CENTURY PATENT REFORM, WHY THE PTO’S USE OF THE BROADEST REASONABLE INTERPRETATION OF PATENT CLAIMS IN POST-GRANT AND INTER PARTES REVIEWS IS INAPPROPRIATE UNDER THE AMERICA INVENTS ACT (2013), <http://www.patentsmatter.com/issue/pdfs/ThePTOsUseOfBRIIsInappropriate6-19-2013.pdf>.

210 See The STRONG Patents Act, S. 632, 114th Cong. § 102 (2015) (mandating use of the “ordinary and customary meaning of the claim as understood by a person having ordinary skill in the art to which the claimed invention pertains”).

211 See *supra* note 124.

212 No. IPR2012-00027, at 26 (P.T.A.B. Jan. 7, 2014).

213 *Id.* at 26–36.

214 Love and Ambwani, *supra* note 2, at 101–02. Since then, at least two other petitions have been granted. See Reg Synthetic Fuels, LLC v. Neste Oil OYJ, No. IPR2014-00192 (P.T.A.B. June 5, 2015); Chi. Mercantile Exch., Inc. v. 5th Mkt., Inc., No. CBM2013-00027

Surprisingly however, in *In re Cuozzo Speed Technologies, LLC*, the Federal Circuit's first encounter with these procedures, it approved use of the BRI.²¹⁵ However, the use of two standards, one for court and one for the PTAB, creates considerable inefficiency. If both tribunals used the same rule, the PTAB could dispense with claim construction in any case in which the district court had already interpreted the claims. Conversely, construction by the technologically sophisticated experts at the PTAB would provide a wealth of information to district courts later considering the same or related claims. Beyond efficiencies, adopting the BRI for judicial proceedings would have an even more important benefit, for the Federal Circuit's own "ordinary meaning" rule has presented many difficulties, including notoriously high reversal rates, contradictory interpretations, and demoralized trial court judges.²¹⁶ In *Teva Pharmaceuticals USA, Inc. v. Sandoz, Inc.*, the Supreme Court tried to ameliorate the problem by distinguishing between underlying issues of fact, which are resolved by extrinsic evidence and are reviewable only for clear error, and legal issues, which rely on intrinsic evidence (the patent and its prosecution history) and receive de novo review.²¹⁷ However, that decision is likely to produce collateral litigation on whether a construction requires a factual inquiry and lead attorneys to shield district court wins by relying more on experts.²¹⁸

Although proposals before Congress would converge on the claim construction standard used in court,²¹⁹ serious consideration should be given to instead adopting the PTO's standard in litigation. In most cases, the approaches yield similar results in any event,²²⁰ but the PTO uses the BRI for unexpired patents in all office proceedings for good reason: it believes the

(P.T.A.B. Mar. 23, 2015) (granting motion for rehearing). *Chicago Mercantile* was, however, somewhat unique in that the claim was invalidated for indefiniteness, not obviousness. Accordingly, the PTAB did not require a showing that it was patentably distinct from the prior art.

215 793 F.3d 1268, 1275–79 (Fed. Cir. 2015); see also *Microsoft Corp. v. Proxycorr, Inc.*, 789 F.3d 1292, 1297 (Fed. Cir. 2015). For a discussion of the Federal Circuit's reasoning in these cases and the dissents regarding *Cuozzo*, see *supra* note 159 and *infra* text accompanying notes 236–46.

216 See O'Malley et al., *supra* note 26, at 682 (statement of Judge Patti Saris); David L. Schwartz, *Practice Makes Perfect? An Empirical Study of Claim Construction Reversal Rates in Patent Cases*, 107 MICH. L. REV. 223, 230, 229 n.20 (2008); Bryan Hall, Note, *A Flawed Patent System: How to Address the Claim Construction Problem in Litigation*, 11 J. ON TELECOMM. & HIGH TECH. L. 411, 411 (2013) (noting "the egregious claim construction reversal rate of 32.5%" at the Federal Circuit).

217 135 S. Ct. 831 (2015).

218 See *id.* at 852 (Thomas, J., dissenting). Significantly, the majority thought "subsidiary factfinding is unlikely to loom large in the universe of litigated claim construction." *Id.* at 840. Had the Court considered practice before the PTAB, it might have been less sanguine, as use of experts on claim construction is common in these proceedings.

219 See The STRONG Patents Act, S. 632, 114th Cong. § 102 (2015).

220 See *Apple Inc. v. Sightsound Techs., LLC*, No. CBM2013-00020, at 8 (P.T.A.B. Oct. 7, 2014) (PTAB adopted the district court's claim interpretation and used it in the final written decision); Thomas King & Jeffrey A. Wolfson, *PTAB Rearranging the Face of Patent*

BRI to yield “more uniform and satisfactory results.”²²¹ It is not surprising that this is so. The BRI provides a benchmark that the Federal Circuit’s current standard lacks. In an earlier era, claims were construed to preserve their validity (and in light of the claimed infringement); once the Supreme Court’s decision in *Markman v. Westview Instruments, Inc.*²²² made claim construction an issue of law and courts began to interpret claims in separate hearings held before evidence on invalidity (or infringement) was adduced, that canon became “a last resort, not a first principle.”²²³ Courts were then forced to make unguided determinations on what an ordinary artisan would understand, using a variety of tools that have changed throughout the course of the Federal Circuit’s history.²²⁴ In contrast, although the BRI has some wiggle room (“reasonable”), it includes an objective standard (“broadest”) while still incorporating ordinary meanings and the traditional approach of allowing the patent holder to be its own lexicographer. As the PTAB articulates it, “[u]nder the broadest reasonable construction standard, claims terms are given their ordinary and customary meaning as would be understood by one of ordinary skill in the art in the context of the entire disclosure.”²²⁵

Of course, if *valid* claims are construed more broadly, the scope for infringement liability will increase. However, the BRI standard closely matches the construction that risk-averse potential users of the invention likely employ in deciding their freedom to operate. Accordingly, it may not have a significant impact on public access. Furthermore, using this standard would have a disciplining effect. If the BRI is more likely to lead to cancellation and invalidation, then drafters may begin to claim more narrowly; if it is used in enforcement actions, it may deter some infringement. Given that damages awards have been reduced and injunctive relief has become less certain, this approach could restore balance to the system.²²⁶

As this Section demonstrates, there is much in the PTAB’s decisions that could be of considerable value to the examining corps and to the courts.

Litigation, 6 LANDSLIDE 18, 21 (2013) (“[I]t is more likely that the Federal Circuit will simply keep the two claim construction standards as close as possible.”).

221 See *SAP Am., Inc. v. Versata Dev. Grp., Inc.*, No. CBM2012-00001, at 7–8, 11–12 (June 11, 2013), *aff’d*, *Versata Dev. Grp., Inc. v. SAP Am., Inc.*, 793 F.3d 1306 (Fed. Cir. 2015); see also *In re Cuozzo*, 793 F.3d 1268, 1279 (2015) (noting that the BRI permits the PTAB to adopt a single construction for use across multiple proceedings—in other words, it creates uniformity).

222 517 U.S. 370 (1996).

223 *MBO Labs., Inc. v. Becton, Dickinson & Co.*, 474 F.3d 1323, 1332 (Fed. Cir. 2007).

224 See *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (describing the history); see also ROBERT PATRICK MERGES & JOHN FITZGERALD DUFFY, *PATENT LAW AND POLICY: CASES AND MATERIALS* 771–79 (6th ed. 2013).

225 *Liberty Mut. Ins. Co. v. Progressive Cas. Ins. Co.*, No. CBM2012-00003, at 10 (Feb. 11, 2014), *aff’d*, *Progressive Cas. Ins. Co. v. Liberty Mut. Ins. Co.*, No. 2014-1466, 2015 WL 5004949 (Fed. Cir. Aug. 24, 2015).

226 See *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301 (Fed. Cir. 2009); *eBay, Inc. v. MercExchange, LLC*, 547 U.S. 388 (2006).

The Board could, however, do better. Like the Federal Circuit, the PTAB tends to suppress almost all reference to underlying policy. Its contribution would be considerably greater if its reasoning were transparent. A dialogue between the tribunals that included candid analyses of policy options would be more fruitful, and joint consideration of these issues by the PTAB and the Federal Circuit would also enrich ultimate consideration by the Supreme Court.

B. Federal Circuit Review of PTAB Decisions

While the procedures instituted by the AIA could contribute significantly to the sound administration of patent law, enjoying the benefits will depend heavily on whether the Federal Circuit is willing to grant a healthy degree of deference to PTAB decisions (that is, share its authority over patent jurisprudence) and on what it makes of the PTO's rules regulating the proceedings in which these decisions are issued. These are not easy questions. Congress interposed dispute resolution in a specialized agency under review in a specialized court. However, it failed to make clear how the two tribunals ought to relate to one another. The statute gave the PTO authority to "prescribe regulations . . . establishing and governing . . . [the three new methods of] review,"²²⁷ but it did not mandate notice and comment,²²⁸ thus arguably withholding formal rulemaking authority. Similarly, Congress directed the PTO to entertain inter partes PGR, IPR, and CBM review and specifically mentioned discovery, responsive filings, oral hearings, and final written determinations; the AIA also renamed the BPAI the Patent *Trial* and Appeal Board.²²⁹ However the statute nowhere incorporates the phrase "on the record after opportunity for an agency hearing,"²³⁰ which is the best evidence that Congress intended the procedures to constitute formal adjudica-

227 35 U.S.C. §§ 316(a), 326(a) (2012). For CBMs, "the Director shall issue regulations establishing and implementing a transitional post-grant review proceeding for review of the validity of covered business method patents." AIA § 18(a)(1), Pub. L. No. 112-29, 125 Stat. 284 (2011).

228 The PTO did, however, provide notice and opportunities to comment on the regulations. See Changes to Implement Inter Partes Review Proceedings, 77 Fed. Reg. 7041 (proposed Feb. 10, 2012) (to be codified at 37 C.F.R. pt. 42); Changes to Implement Post-Grant Review Proceedings, 77 Fed. Reg. 7060 (proposed Feb. 10, 2012) (to be codified at 37 C.F.R. pt. 42); Transitional Program for Covered Business Method Patents—Definition of Technological Invention, 77 Fed. Reg. 7095 (proposed Feb. 10, 2012) (to be codified at 37 C.F.R. pt. 42). See also *Federal Register Notices – 2012*, U.S. PATENT & TRADEMARK OFFICE, http://www.uspto.gov/news/fedreg/fr_2012.jsp (last modified Jan. 27, 2015), for other notices of proposed rulemakings under the AIA.

229 See 5 U.S.C. §§ 556(b), (d), 557 (2012) (laying out the requirements for adjudication); 35 U.S.C. §§ 6, 316(a) (charging the PTO with creating procedures for inter partes review); Benjamin and Rai, *supra* note 19, at 327–28.

230 5 U.S.C. § 554(a).

tions and thus intended to delegate to the agency interpretive authority entitled to judicial deference.²³¹

Not only is the statute unclear about how much authority Congress meant to vest in the PTO, the Federal Circuit's past approach to agency review has been decidedly mixed. As Arti Rai and Stuart Benjamin documented in 2007, despite *Dickinson v. Zurko*,²³² which admonished the Federal Circuit to apply mainstream administrative law to its review of agency action, the Federal Circuit has not consistently done so. *Tafas v. Doll*,²³³ the Federal Circuit's previous foray into PTO rulemaking, produced a split decision. The court rejected a PTO rule on continuations because, in one judge's view, no deference was owed the PTO, and in the other two judges' view, because the rule had a substantive effect inconsistent with the Patent Act.²³⁴ Substantively, while the Federal Circuit has reviewed factual findings on a substantial evidence standard (or for clear error), it has reviewed PTO legal determinations de novo.²³⁵

The AIA's delineation of the PTO's new authorities and obligations ought to have prompted the Federal Circuit to reconsider its approach to administrative deference. But the early cases reviewing the PTO's authority and PTAB decisions, *In re Cuozzo Speed Technologies, Microsoft Corp. v. Proxyconn, Inc.*, and *Versata Development Grp., Inc. v. SAP America, Inc.*, suggest that the court is not ready to take systematic heed of congressional willingness to rely on the PTO.²³⁶ Quite the reverse.

To be sure, in *Cuozzo*, the court referenced the *Chevron* framework in reaching the decision to approve the PTAB's use of the BRI. It assumed—arguendo—that since Congress was silent on claim construction, the PTO could adopt a reasonable interpretation. It found the BRI to be reasonable because it was supported by the policy rationales applicable to other forms of examination.²³⁷ The *Chevron* analysis was, however, extremely short (two paragraphs) and mechanical. Indeed, the court withdrew its initial opinion in the case²³⁸ in order to add a paragraph emphasizing that it did not, in fact, agree to the use of the BRI on *Chevron* grounds. In the revised opinion,

231 See *United States v. Mead Corp.*, 533 U.S. 218, 229–30 (2001); *Chevron U.S.A. Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837, 865–66 (1984).

232 527 U.S. 150 (1999).

233 559 F.3d 1345 (Fed. Cir. 2009). Further complicating the matter, the rule was withdrawn, mooting the Federal Circuit's decision to rehear the case en banc. *Tafas v. Kappos*, 586 F.3d 1369 (Fed. Cir. 2009) (refusing to vacate the trial court decision invalidating a whole series of PTO regulations).

234 37 C.F.R. § 1.78(d)(1)(i) (since withdrawn); see also *Tafas v. Doll*, 559 F.3d 1345, 1374 (Fed. Cir. 2009) (Rader, C.J., concurring in part and dissenting in part); *id.* at 1360 (majority opinion); *id.* at 1366 (Bryson, J., concurring in part and dissenting in part).

235 Benjamin and Rai, *supra* note 19, at 288–89, 300; see also 5 U.S.C. § 706.

236 *Versata Dev. Grp., Inc. v. SAP Am., Inc.*, 793 F.3d 1306 (Fed. Cir. 2015); *In re Cuozzo Speed Techs., LLC*, 793 F.3d 1268 (Fed. Cir. 2015); *Microsoft Corp. v. Proxyconn, Inc.* 789 F.3d 1292 (Fed. Cir. 2015).

237 *In re Cuozzo*, 793 F.3d at 1279.

238 *In re Cuozzo Speed Techs., LLC*, 778 F.3d 1271 (Fed. Cir. 2015).

it denied that “Congress has newly granted the PTO power to interpret substantive statutory ‘patentability’ standards.”²³⁹ According to the court, “[s]uch a power would represent a radical change in the authority historically conferred on the PTO by Congress, and we could not find such a transformation effected by the regulation-authorizing language of § 316.”²⁴⁰

Instead, the court devoted most of its discussion of the BRI (eight paragraphs) to its own interpretation of the AIA. Noting that the BRI has been applied “for more than 100 years in various types of PTO proceedings,”²⁴¹ it reasoned that Congress must have been aware of it and thus can be said to have implicitly approved its use.²⁴² As to PTO-imposed limitations on amendment (which, as we saw, is a major reason for the BRI controversy), the court did not apply *Chevron* at all. Rather, it found the availability of amendment sufficient,²⁴³ once again reasoning that congressional awareness can be taken as adoption.

Despite the court’s careful clarification that its approval of the BRI was not because of deference to the PTO, the decision to deny a rehearing en banc still drew two strong dissents.²⁴⁴ The dissenters mainly claimed that since post-grant opposition was meant to be a cheap substitute for litigation, it was more appropriate to use what they termed the “actual” construction of challenged claims.²⁴⁵ But echoing her position in *Tafas*, Chief Judge Prost also questioned whether the standard of construction fell within the PTO’s procedural authority. Because in her view it did not, the choice of the BRI merited no *Chevron* deference at all.²⁴⁶

Given the *Cuozzo* court’s heavy reliance on past practice regarding claim construction, it is not surprising the court has been even more skeptical of PTO authority on issues unique to post-grant practices. In *Proxycorr*, the question was whether the Board’s *Idle Free* decision appropriately required the patent holder to prove an amendment was patentably distinct over all the prior art in the record (and not merely the art the petitioner raised). Although this time the court expressly referenced the standard articulated in the Administrative Procedure Act (APA),²⁴⁷ it mainly provided its own assessment of the rule and the procedure used to create it.²⁴⁸

Versata, a CBM, was much the same. The Federal Circuit acknowledged that Congress had left it to the PTO to define the term “covered business method” and carefully noted that the PTO had considered both the legislative history and public responses to the notice it published in the Federal

239 *In re Cuozzo*, 793 F.3d at 1279.

240 *Compare In re Cuozzo*, 793 F.3d at 1279, *with In re Cuozzo*, 778 F.3d at 1282.

241 *In re Cuozzo*, 793 F.3d at 1276.

242 *Id.* at 1278.

243 *Id.* at 1277–78.

244 *In re Cuozzo Speed Techs., LLC*, 793 F.3d 1297 (Fed. Cir. 2015) (denying rehearing en banc).

245 *See id.* at 1301.

246 *See id.* at 1302.

247 *Microsoft Corp. v. Proxycorr, Inc.* 789 F.3d 1292, 1306 (Fed. Cir. 2015).

248 *See id.* at 1306–08.

Register. Nonetheless, the court conducted its own assessment.²⁴⁹ In the end, it decided that it agreed with the PTO that covered business methods are not limited to products and services of the financial sector, noting only at the very end of that section of the opinion that the PTO's expertise entitles it to "substantial deference in how it defines its mission."²⁵⁰ It handled another issue that arose in the case similarly, deciding for itself that in CBMs, the PTAB has authority to decide whether the claims are drawn to patentable subject matter.²⁵¹

The fate of matters like the narrow constraints the PTO placed on how the parties present their cases (the time and page limits; the minimal discovery), which have no history and are not tied to the PTAB's mission, are even more difficult to determine. It is, however, worth nothing that although page, time, discovery, and argument limitations have an impact on the parties' ability to present their cases (especially in light of the broad view of the grounds that can be asserted, at least in CBMs), these limits do not appear to significantly impair argumentation, and they are well tailored to Congress's goal of creating a quick and less expensive way to weed out invalid claims.²⁵² Furthermore, PTAB panels enjoy the discretion to alter many of these limits in the interest of justice or for good cause.²⁵³ Thus, if a *Chevron* standard were applied, these regulations appear to lie squarely within the regulatory authority Congress accorded to the PTO and to be consistent with the Patent Act and permissible interpretations of the AIA.²⁵⁴

249 See *Versata Dev. Grp., Inc. v. SAP Am., Inc.*, 793 F.3d 1306, 1323–26 (2015). For the legislative history considered, see *supra* text accompanying notes 94–95.

250 *Versata*, 793 F.3d at 1325. The court also considered the PTO's regulation defining "technological invention" but apparently found it so devoid in meaning that it did not bother to state a standard for reviewing it. See *id.* at 1326.

251 *Id.* at 1329–30.

252 Cf. *Zetec, Inc. v. Westinghouse Elec. Co., LLC*, No. IPR2014-00384, at 16 (P.T.A.B. July 23, 2014) (institution decision) (exercising discretion to refuse to institute IPR on the grounds that the Office must promulgate procedures that "tak[e] into consideration . . . 'the efficient administration of the Office[] and the ability of the Office to timely complete proceedings instituted,' among other factors" (alteration in original) (quoting 35 U.S.C. § 316(b) (2012))).

253 See, e.g., *Kyocera Corp. v. Softview LLC*, Nos. IPR2013-00007 & IPR2013-00256, at 8 (P.T.A.B. Mar. 27, 2014) (noting the previous permitting of extra briefing), *aff'd*, *Softview LLC v. Kyocera Corp.*, 592 F. App'x 947 (Fed. Cir. 2015).

254 The PTAB procedures have also been challenged for depriving the parties of a trial by jury and for violating separation of power principles. In *Cooper v. Lee*, the issues were raised in a declaratory judgment action but dismissed for failure to exhaust administrative procedures. No. 1:14-cv-00672-GBL-JFA, 2015 WL 686041, at *9 (E.D. Va. Feb. 18, 2015). The district court did, however, note that the Federal Circuit had upheld the constitutionality of *ex parte* reexamination in a decision the Supreme Court declined to review. *Id.* at *2 (citing *Joy Techs., Inc. v. Manbeck*, 959 F.2d 226 (Fed. Cir. 1992)). *B&B Hardware, Inc. v. Hargis Industries, Inc.*, 135 S. Ct. 1293 (2015), which held that an issue decided by the Trademark Trial and Appeal Board (TTAB) is preclusive of later litigation in an Art. III court, suggests that the Supreme Court is unlikely to find that the PTAB deprives the patent holder of a right to a jury trial.

Whereas procedurally, *Cuozzo*, *Proxyconn*, and *Versata* send a somewhat mixed message, substantively, they do no such thing: nothing in these decisions even gestures at the notion that the Federal Circuit is prepared to defer to PTAB decisions.²⁵⁵ In reviewing the merits, *Cuozzo* and *Proxyconn* cited *Teva*.²⁵⁶ In other words, the court adopted the standard the Supreme Court imposed on review of *district court* claim constructions to consider the PTAB's claim construction. Indeed, in *Proxyconn*, the court reversed the PTAB's construction of the claim,²⁵⁷ even though the court is less versed in the application of the BRI than is the PTAB. In *Versata*, it went much further. First, despite having decided in *Cuozzo* that it had no jurisdiction to review PTAB decisions on whether to institute IPRs,²⁵⁸ the *Versata* court redefined the issue: it decided it could review whether the PTAB had exceeded its CBM authority by hearing challenges to patents that it misidentified as drawn to "covered business methods."²⁵⁹ And even though the court accepted the Board's definition of what constituted a "covered business method," and despite its own complete lack of case law on the meaning of a "covered business method" or a "technological invention," it nevertheless reviewed the PTAB decision de novo.²⁶⁰ Similarly, it reviewed the question whether the invention at issue was patentable subject matter in the same way as it would have reviewed a decision of a trial court.²⁶¹

This approach may be a function of the court's skepticism as to whether the APA applies with full force to the PTO (which was created a century before the rise of the administrative state and is mentioned only marginally in the legislative history of the APA).²⁶² Or it may stem from a fear that the PTAB is, indeed, acting like a "death squad." Alternatively, it may derive from what Judge Hughes, in dissenting from *Versata*'s holding that institution decisions are reviewable, claims is an "appetite for arrogating to the court the

255 It is, however, worth noting that Garmin, the party that brought the challenge in *Cuozzo*, withdrew from the appeal as part of a settlement. *In re Cuozzo Speed Techs., LLC*, 793 F.3d 1268, 1272 n.2 (Fed. Cir. 2015). Thus, no one had an incentive to argue for deference to the PTO's determination on the merits of the case. Yet the precedential value of the decision stands. See *Microsoft Corp. v. Proxyconn, Inc.*, 789 F.3d 1292, 1297 (Fed. Cir. 2015). It should also be noted that *Proxyconn* is the first reversal: many PTAB cases are affirmed without opinion. See Tony Dutra, *Federal Circuit Affirms Three Cases Without Opinion Two Days After Oral Arguments*, 89 PAT. TRADEMARK & COPYRIGHT J. (BNA) 1607 (2015) (citing former chief judge of the Federal Circuit Paul Michel as saying that the court may be deferring to the PTAB's expertise in law and technology—or it may simply have too many cases coming from the PTAB to review them more carefully).

256 *Proxyconn*, 789 F.3d at 1297; *In re Cuozzo*, 793 F.3d at 1279–80.

257 *Proxyconn*, 789 F.3d at 1299.

258 *In re Cuozzo*, 793 F.3d at 1273.

259 *Versata Dev. Grp., Inc. v. SAP Am., Inc.*, 793 F.3d 1306, 1321–23 (Fed. Cir. 2015).

260 See *id.* at 1323–27.

261 *Id.* at 1330–36.

262 See Mark D. Torché, Note, *Rubber Stamp or Court of Last Resort: The Proper Standard of Review in Patent and Trademark Cases*, 48 DRAKE L. REV. 211, 227 (1999) (noting an argument by Professor Janice Mueller that the legislative history of the APA made it clear that the PTO was exempt from its standards of review).

Board's statutory authority."²⁶³ But to the extent that the court's attitude derives from the perception that the PTO lacks formal adjudicatory authority, it should be reconsidered. Plenary review is not, as Judge Hughes put it, "how Congress designed the AIA to work."²⁶⁴ As Melissa Wasserman has cogently argued, the imposition of procedural safeguards, as well as the mention of "court-like proceeding[s]" in the House Report on the AIA, suggest that these procedures were to "be accompanied with a policy-making or law-making ability."²⁶⁵ She also notes that it is hard to understand why Congress would have provided for post-grant review of "novel or unsettled legal question[s] that [are] important to other patents or patent applications" if it had not intended the PTAB to speak with the force of law and for its decisions to be entitled to deference.²⁶⁶

As the system has gone into operation, other reasons to believe that Congress expected the court to give substantial deference to the PTAB have emerged. First, as the next Section describes in more detail, the same claims, patents, and families of patents, all using similar terms and concepts, can be the target of multiple proceedings; often, the challenges are brought by the same petitioners. Occasionally, what are essentially protective petitions are filed—that is, petitions challenging claims the PTAB has already cancelled, apparently filed out of concern that the cancellation decision will be reversed.²⁶⁷ Unless the patent holder can rely on the near-binding effect of PTAB determinations on the parties (and a stare decisis effect on nonparties), the tax that these multiple procedures impose will be formidable. Since, presumably, Congress did not (in Judge Hughes's words) adopt these procedures to create "unnecessary and counterproductive litigation costs" or to chill innovation, it can be inferred that it intended the PTAB's decisions to be entitled to deference.²⁶⁸

Notably, Congress made the estoppel effect of PTAB decisions dependent on the issuance of a final written decision of the Board.²⁶⁹ In contrast, the Federal Circuit has suggested that the estoppel effect of other PTO determinations—to which deference is not accorded—is triggered only after all

263 *Versata*, 793 F.3d at 1337 (Hughes, J., concurring in part and dissenting in part).

264 *Id.* at 1343.

265 Melissa F. Wasserman, *The Changing Guard of Patent Law: Chevron Deference for the PTO*, 54 WM. & MARY L. REV. 1959, 1983–84, 1993 (2013) (quoting H.R. REP. NO. 112-98, pt. 1, at 68 (2011)); see also Benjamin & Rai, *supra* note 19, at 327–28.

266 Wasserman, *supra* note 265, at 1993 (quoting AIA, Pub. L. No. 112-29, § 6(d), 125 Stat. 284, 307 (2011) (codified at 35 U.S.C. § 324(b) (2012))). *But see* Matal, *supra* note 7, at 609 (suggesting that the provision was added to "create [] an avenue by which the question can be conclusively resolved by the Federal [C]ircuit before a large number of improper patents" are issued (alteration in original) (quoting 154 CONG. REC. S9988 (daily ed. Sept. 27, 2008) (statement of Sen. Kyl))).

267 See *supra* notes 119–22.

268 *Versata*, 793 F.3d at 1339 (Hughes, J., concurring in part and dissenting in part) (quoting H.R. REP. NO. 112-98, pt. 1, at 40 (2011)).

269 35 U.S.C. § 315(e) (2012); *id.* § 325(e).

appeals are exhausted.²⁷⁰ Although the estoppel provision is tempered by the timing of the issuance of the certificate of cancellation and amendment (which is after appeal),²⁷¹ the difference in the trigger for estoppel suggests an intent that PTAB determinations bind not only the patent holder and the challenger, but also allow the public free use of the claimed invention as soon as the PTAB determines the claim should be cancelled. It is difficult to square that intent with *de novo* review of institution decisions or legal determinations. While review has been sought on almost every final written decision,²⁷² Congress did not provide for expedited appeals. Given the time it takes to hear appeals, and especially the historical frequency with which the Federal Circuit has reversed trial courts on the issue of claim construction, which is of central importance in these procedures,²⁷³ it would be impossible to bring about finality in the rapid time frame Congress had in mind if such a high level of scrutiny were applied.²⁷⁴

I leave the question of the precise effect of the AIA on the standard of review to the administrative law experts. For these purposes, it is enough to say that it behooves the Federal Circuit to do more than reflexively reverse everything that does not accord with its own initial assessment. Not only must it consider the more robust safeguards mandated for these procedures, it should also take the relative capacities of the two institutions into account. After all, members of the Federal Circuit have often expressed frustration with the Supreme Court's lack of expertise and intermittent exposure to patent cases.²⁷⁵ But as between the Federal Circuit and the PTAB, it is the latter

270 See *Abbvie Deutschland GMBH & Co. v. Janssen Biotech, Inc.*, 759 F.3d 1285, 1296 (Fed. Cir. 2014) (finding an interference decision non-final under the preclusion law of the First Circuit because it was subject to court review); Tamimi, *supra* note 38, at 633–34.

271 35 U.S.C. § 318(b) (“If . . . the time for appeal has expired or any appeal has terminated, the Director shall issue and publish a certificate canceling any claim of the patent finally determined to be unpatentable”); *id.* § 328(b) (“If . . . the time for appeal has expired or any appeal has terminated, the Director shall issue and publish a certificate canceling any claim of the patent finally determined to be unpatentable”).

272 As of Sept. 11, 2014, 62 of the 114 written decisions rendered in IPRs had been appealed, and the time to appeal had not run out on most of the others. See *Casino & Kasdan*, *supra* note 145. Similar figures apply to CBMs.

273 See, e.g., Christian A. Chu, *Empirical Analysis of the Federal Circuit's Claim Construction Trends*, 16 BERKELEY TECH. L.J. 1075, 1075 (2001) (analyzing the increased trend in claim interpretation-based reversals); David L. Schwartz, *Pre-Markman Reversal Rates*, 43 LOY. L.A. L. REV. 1073, 1107 (2010) (“[T]he claim construction reversal rate is unduly high and has generally been increasing in the last fifteen years.”).

274 Frequent reversals should change under *Teva*. But see *supra* note 218 and accompanying text.

275 As former Chief Judge Michel once said, “There’s . . . a certain amount of suspicion that there might be some deeper immersion, deeper familiarity, harder thinking and greater exposure [to patent law] at the Federal Circuit than the Supreme Court itself can offer.” Roy Zwhalen, *Mayo v. Prometheus: Thought Leaders Express Concern and Evaluate the Impact*, BIOTECH-NOW (May 21, 2012) (alteration in original), <http://www.biotech-now.org/public-policy/patently-biotech/2012/05/mayo-v-prometheus-thought-leaders-express-concern-evaluate-business-impact-and-discuss-the-future>.

that is closer to the technology and sees the issues more regularly.²⁷⁶ This is not to say that no review should be accorded (particularly on new issues), but given the many differences between these procedures and examination, review of facts on the “substantial evidence” standard the APA mandates for formal proceedings,²⁷⁷ and review of law on the deferential end of the *Skidmore-Chevron* spectrum required for substantive legal and policy decisions, is not inappropriate from both a normative and an institutional perspective.²⁷⁸

While the AIA can be understood as requiring deference to the PTO on both rulemaking and adjudication, experience nonetheless demonstrates the need for the PTO (or Congress) to make some changes. If the Federal Circuit does not adopt the BRI for litigation, then the dual approach will be very difficult to maintain.²⁷⁹ Thus, even though the Federal Circuit approved use of the BRI, the PTO may wish to rethink it. If the PTO retains use of the BRI, then it ought, at least, to reconsider the availability of amendments. It could, for example, alter the regulations and *Idle Free*. For example, one reason the PTAB may be reluctant to allow amendments is that the amended claims go into force without further examination.²⁸⁰ A better approach might be to have the patent holder announce proposed amendments early in the process and put the burden on the petitioner to prove these amendments are invalid.²⁸¹ It would not be a complete solution to the absence of examination—after all, some amendments may not be of enough interest to a petitioner to trigger opposition. But if it were clear to potential petitioners that there is a viable amendment procedure and that they will be required to protect their own interests in it, perhaps fewer petitions for review would be filed. Alternatively, the PTO could clarify when a patent holder whose claims were cancelled can use *ex parte* reexamination or, in the case where error can validly be claimed, reissue, in order to obtain further (albeit narrower) protection.²⁸²

276 See Wasserman, *supra* note 265, at 2007–17 (comparing the institutional features of the PTAB with the Federal Circuit); see also Benjamin & Rai, *supra* note 19, at 315–16, 334, 277 5 U.S.C. § 706(2)(E) (2012).

278 See *Chevron U.S.A. Inc. v. Nat. Res. Def. Council, Inc.*, 467 U.S. 837, 865–66 (1984); *Skidmore v. Swift & Co.*, 323 U.S. 134, 140 (1944); see also *United States v. Mead Corp.*, 533 U.S. 218, 229–30 (2001); cf. *Varsity Brands, Inc. v. Star Athletica, LLC*, 799 F.3d 468, 479 (6th Cir. 2015) (accordings *Skidmore* deference to the Copyright Office’s determination that a design is protectable); Doug Lichtman & Mark A. Lemley, *Rethinking Patent Law’s Presumption of Validity*, 60 STAN. L. REV. 45, 63–65 (2007) (arguing that more adversarial adjudications should be entitled to greater deference).

279 For further discussion of the problem with a dual approach, see *infra* text accompanying note 336.

280 This, indeed, was the Federal Circuit’s reason for thinking *Idle Free* was correctly decided. See *Microsoft Corp. v. Proxyconn, Inc.*, 789 F.3d 1292, 1307 (Fed. Cir. 2015).

281 See, e.g., S. 632, 114th Cong. § 102(c) (2015); S. 1137, 114th Cong. § 11 (Manager’s Amendment).

282 35 U.S.C. §§ 251–52 (2012) (concerning reissue); *id.* §§ 301–07 (concerning *ex parte* reexamination). Arguably, the patent holder is estopped from returning to the patent office by 37 C.F.R. § 42.73(d)(3), but it may be possible to rely on a different written description. See Scott A. McKeown, *Patent Reissue as an Alternative to PTAB Amendment Prac-*

There are other matters also worth revisiting. For example, the petitioner currently has no right to reply directly to the patent owner's preliminary response to a petition to institute. As a result, the petitioner must anticipate the arguments the patent owner will make and reply to these conjectural arguments in the initial petition itself. This uses precious pages and also requires the PTAB to wade through arguments and hypothetical counterarguments that may never become a part of the merits decisions. Allowing a reply to the preliminary response may be preferable. Additionally, the page limits and other rules appear to be leading parties to file more than one petition challenging claims in the same patent, or similar claims in a family of patents.²⁸³ While the Board can refuse to institute when successive petitions raise "substantially the same . . . argument[]," that practice is within the PTAB's discretion;²⁸⁴ the Board may not be willing to exercise that power if the petitioner did not have the space to fully flesh out its arguments.²⁸⁵ To be sure, the Board can sometimes obtain efficiencies through formal consolidation or by assigning the same panel to hear all the cases,²⁸⁶ but multiple institution decisions and final written decisions must often be handed down and the efficiencies the PTAB achieves internally are not necessarily shared with the parties themselves.²⁸⁷ The multiplicity of proceed-

tice, PATENTS POST-GRANT (Apr. 8, 2014), <http://www.patentspostgrant.com/patent-reissue-escape-hatch-opens-for-ptab-amendments>.

283 See, e.g., *Apple Inc. v. SightSound Techs., LLC*, No. CBM2013-00019 (P.T.A.B. Oct. 8, 2013) (institution decision) (refusing to institute a proceeding to challenge claims 1, 2, 4, and 5 of Patent 5,191,573 for not being subject-matter eligible and for lacking a sufficient written description); *Apple Inc. v. SightSound Techs., LLC*, CBM2013-00020 (P.T.A.B. Oct. 7, 2014) (instituting and then cancelling claims 1, 2, 4, and 5 of Patent 5,191,573 on obviousness grounds). According to Director Lee's blog, the PTO is currently considering changes in this area. Lee, *supra* note 37.

284 See, e.g., *Conopco, Inc. v. The Proctor & Gamble Co.*, No. IPR2014-00507, at 5 (P.T.A.B. July 7, 2014) (institution decision).

285 Cf. *Dell Inc. v. Elec. & Telecomms. Research Inst.*, No. IPR2015-00549, (P.T.A.B. Mar. 26, 2015) (institution decision) (refusing to join two petitions in order to preserve the timeliness of the second one filed).

286 35 U.S.C. § 315(d); *id.* § 325(d).

287 See, e.g., *Groupon, Inc. v. Blue Calypso, LLC*, No. CBM2013-00033, -00034, -00035, 00044, -00046, at *1 n.1 (P.T.A.B. May 7, 2014) (decision on admission *pro hac vice*) (considering five petitions together, with the admonition that the parties "are not authorized to use this style heading in any subsequent papers"). Another example is furnished by the cases between Liberty Mutual Insurance Co and Progressive Casualty Insurance Co., including CBM2012-00002 (regarding a method for determining an automobile insurance premium based on data collected from monitored motor vehicle operational characteristics and operator's driving characteristics); and -00003 (regarding a vehicle monitoring system); -00010 (regarding a system that allows policyholders to access policy information on the internet); CBM2013-00002 (accessing policy information on the internet) (oral argument merged with CBM 2012-00010); -00004 (regarding a system for monitoring the operation of a motor vehicle); and -00009 (regarding a vehicle monitoring system). All these were decided by the same panel of administrative patent judges but (with one exception) were entertained as separate cases. The Federal Circuit similarly obtained efficiencies by reviewing the cases together, see *Progressive Cas. Ins. Co. v. Liberty Mut. Ins. Co.*,

ings is also problematic for trial courts, for they can never be certain when practice before the PTAB is over and any stays they issued can be dissolved. It may, in the end, be more efficient to liberalize the page and time limits and give potential challengers a longer period in which to join ongoing proceedings. Moreover, because the PTAB reconsiders issues decided at the time of institution (like claim construction) at the merits stage as well,²⁸⁸ it might also be useful to give parties more scope for argument earlier in the proceedings.

The point is not that current practice is perfect. Rather, it is that if Congress fails to step in, then changes should be within the sound discretion of the PTO. Federal Circuit judges, many of whom lack case management experience, are not institutionally best situated to decide how to balance the congressional goal of efficiency against the needs of the parties to present their cases effectively.

IV. PROBLEMS: COMPLEXITY, ABUSE, AND THE PUBLIC INTEREST

With the addition of a procedure permitting third parties to submit information to the PTO prior to patent issuance,²⁸⁹ the AIA envisioned a “cradle to grave” opportunity for the public to challenge rights to exclusivity. Preissuance submission hands off to PGR, and then to IPR, with CBMs (temporarily) hovering over claims that are especially questionable. Through the use of separate procedures, Congress attempted to strike a careful balance between promoting public access to unpatentable advances and recognizing reliance interests that mature as patent holders and licensees pour resources into exploiting their inventions. However, three different review procedures create a great deal of complexity. As we have seen, patent families can get caught in a series of successive challenges. These give rise to complicated questions on how the results of one review affect the positions that patent holders, petitioners, their privies or real parties in interest, and strangers can take in later actions.

Some of these procedures allow any interested party to challenge claims. While this, too, is commendable from an access-to-knowledge perspective, it raises procedural questions and can create opportunities for harassment. Furthermore, as Part I described, the review procedures permit the parties to rely on (and challenge) experts, make motions to exclude, amend, file objections to amendments, and present oral arguments. In practice, these oppor-

No. 2014-1466, 2015 WL5004949 (Fed. Cir. Aug 24, 2015). Similarly, a combined oral hearing was held on two cases involving Apple and Sightsound Technologies. This produced two separate written opinions, issued on the same day. See *Apple, Inc. v. Sightsound Techs., LLC*, No. CBM2013-00023 (P.T.A.B. Oct. 7, 2014); *Apple, Inc. v. Sightsound Techs., LLC*, No. CBM2013-00020 (P.T.A.B. Oct. 7, 2014).

²⁸⁸ See, e.g., *SAP Am., Inc. v. Lakshmi Arunachalam*, No. CBM2013-00013, at 11–12 (P.T.A.B. Sept. 18, 2014); *Liberty Mut. Ins. Co. v. Progressive Cas. Ins. Co.*, No. CBM2012-00003, at 11 (P.T.A.B. Feb. 11, 2014), *aff'd*, *Progressive Cas. Ins. Co. v. Liberty Mut. Ins. Co.*, No. 2014-1466, 2015 WL 5004949 (Fed. Cir. Aug. 24, 2015).

²⁸⁹ 35 U.S.C. § 122(e); 37 C.F.R. § 1.290 (2014).

tunities are used in many cases. The expense raises questions as to whether public domain interests are as well protected as the proponents of these procedures hoped. The answers depend on whether problems raised by complexity can be resolved in a fair and evenhanded manner. This Part discusses these issues.

A. Complexity and Abuse

As described earlier, the AIA and PTO introduced rules on estoppel that are designed to prevent the parties from obtaining several bites at the apple. Under the regulations, a patent holder is “precluded from taking action inconsistent with [an] adverse judgment, including obtaining in any patent: (i) a claim that is not patentably distinct from a . . . canceled claim; or (ii) [a]n amendment of a specification . . . that was denied during the trial.”²⁹⁰ For IPR and PGR challengers, the statute provides that once a final written decision is handed down, the petitioner, the real party in interest, and the petitioner’s privies are precluded from maintaining an action in the PTO with respect to that claim “on any ground that the petitioner raised or reasonably could have raised” in the proceeding.²⁹¹ Nor can the petitioner argue in court or in the ITC that the claim is invalid on any ground the petitioner “raised or reasonably could have raised.”²⁹² CBMs are somewhat different: once a final written decision is issued, the petitioners or the real party in interest cannot assert, in courts or in the ITC, an argument that the claim is invalid on any ground that the petitioner “raised” during the CBM.²⁹³ But despite the considerable detail written into these provisions, it is already clear that they fail to cover all the ways in which those involved in these proceedings can nibble at the apple. Thus, for example, Colleen Chien and Christian Helmers observe that 82% of IPRs run parallel to litigation.²⁹⁴ And yet the rules do not say whether the findings of fact and law made in the course of these procedures are binding on other tribunals as a matter of collateral estoppel (issue preclusion) or *stare decisis*.²⁹⁵

The poster child for these omissions is the dispute between Versata and SAP America, where a party that lost in the trial court on the argument that certain claims were invalid,²⁹⁶ then brought a CBM petition to challenge the validity of the same claims.²⁹⁷ Such an action is not barred by the AIA or the

290 37 C.F.R. § 42.73(d)(3).

291 35 U.S.C. § 315(e)(1); *id.* § 325(e)(1).

292 35 U.S.C. § 315(e)(2); *id.* § 325(e)(2).

293 AIA, Pub. L. No. 112-29, § 18(a)(1)(D), 125 Stat. 284, 330 (2011) (codified at 35 U.S.C. § 321 note).

294 Chien & Helmers, *supra* note 35, at 9.

295 *But see* Stoll, *supra* note 76, at 40 (calling the estoppel provision of § 325(e)(2) “something of a hybrid of claim preclusion and issue preclusion”).

296 *Versata Software, Inc. v. SAP Am., Inc.*, No. 2:07-CV-153 CE, 2011 WL 4017944 (E.D. Tex. Sept. 9, 2011).

297 *See* *SAP Am., Inc. v. Versata Dev. Grp., Inc.*, No. CBM2012-00001 (P.T.A.B. June 11, 2013) (involving claims 26–29 of Patent No. 6,553,350), *aff’d*, *Versata Dev. Grp., Inc. v. SAP*

regulations adopted by the PTO. And because potential infringement is continuing, there is no question of claim preclusion. Nor does issue preclusion apply: since the PTAB uses a lower burden of proof on validity and a different rule for claim construction, the issues in the review are not the same as the issues decided by the court.²⁹⁸ The PTAB instituted an action and cancelled the claims.²⁹⁹ But by the time the PTAB handed down a final written decision, much had happened: the Federal Circuit had affirmed the trial court's damage award, vacated part of the order for injunctive relief, and remanded to the district court;³⁰⁰ that court had then awarded damages in the amount of \$391 million (the injunction was abandoned). Arguably, the subsequent invalidation of the claims in the PTAB should have provided grounds for the infringement defendant to petition for relief from the \$391 million judgment under Federal Rule Of Civil Procedure 60.³⁰¹ However, in a short per curiam order that offered no explanation, the Federal Circuit denied a motion to stay or for relief from judgment.³⁰² In a later proceeding, the Federal Circuit essentially gave the patent holder a right to contest the institution decision as part of its review of the merits of the PTAB's invalidation determination.³⁰³ However, the Federal Circuit affirmed the PTAB on both issues, with the result that a party is now forced to pay a rather large award on account of a patent that is not valid.³⁰⁴

Troubling as *Versata* looks, the result can be justified on the ground that it motivates those who believe a patent is invalid to challenge it quickly and put the invention it covers into the public domain. In contrast, the opposite

Am., Inc., 793 F.3d 1306 (Fed. Cir. 2015); *see also* SAP Am., Inc. v. Versata Dev. Grp., Inc., No. CBM2013-00042 (P.T.A.B. Aug. 16, 2013) (challenging, among others, claims 31, 35, and 36 of Patent 5,878,400).

298 *See, e.g.*, Interthinx, Inc. v. CoreLogic Sols., LLC, No. CBM2012-00007, at 6 (P.T.A.B. Jan. 30, 2014), *appeal dismissed sub nom.*, *In re* CoreLogic Sols., LLC, 571 F. App'x 950 (Fed. Cir. 2014). In a case involving other patents, Versata unsuccessfully tried to mandamus the PTAB to halt a CBM review. *In re* Versata Dev. Grp., Inc., 564 F. App'x 1025 (Fed. Cir. 2014).

299 SAP Am., Inc. v. Versata Dev. Grp., Inc., No. CBM2012-00001, at 34 (P.T.A.B. June 11, 2013). An attempt by the patent holder to challenge the institution decision through an action in the district court was rejected. *Versata Dev. Grp., Inc. v. Lee*, 793 F.3d 1352 (Fed. Cir. 2015).

300 *Versata Software, Inc. v. SAP Am., Inc.*, 717 F.3d 1255, 1269 (Fed. Cir. 2013).

301 *See, e.g.*, *Flexiteek Ams, Inc. v. PlasTEAK, Inc.*, No. 08-60996-CIV, 2012 WL 5364263, at *9 (S.D. Fla. 2012) (granting relief under Rule 60(b)(5) and (6) and noting that "it would be inequitable and unjust to let stand, let alone enforce, an injunction and an unexecuted money judgment predicated on a patent claim found to be invalid and cancelled"); *cf.* *Fresenius USA, Inc. v. Baxter Int'l, Inc.*, 721 F.3d 1330, 1341-45 (Fed. Cir. 2013) (permitting reconsideration of relief before a judgment became final).

302 *Versata Comput. Indus. Sols., Inc. v. SAP AG*, 564 F. App'x 600 (Fed. Cir. 2014).

303 *Versata Dev. Grp., Inc. v. SAP Am., Inc.*, 793 F.3d 1306, 1323-27 (Fed. Cir. 2015).

304 *See also* *Ultratec, Inc. v. Sorenson Commc'ns, Inc.*, No. 13-cv-346-bbc, 2015 WL 2248437 (W.D. Wis. May 13, 2015) (staying proceedings after entry of a \$44 million infringement judgment, pending review of a PTAB decision to invalidate the infringed patent).

rule—one that absolves challengers of past liability—encourages sharp practice. A party with private information about invalidity could infringe, safe in the knowledge that if it were sued, it would invalidate the patent and free itself of the obligation to pay damages, all the while retaining any extra profits it captured as a result of, essentially, sharing exclusivity with the patent holder. The *Versata* outcome is not even entirely unprecedented. For example, a licensee who successfully challenges a patent must pay royalties up to the point where it took the affirmative step of prompting adjudication of validity.³⁰⁵ Still, if such cases proliferate, U.S. procedure will take on an aspect of German practice, where infringement suits and validity determinations are bifurcated and decided at different times by different tribunals. That practice, which regularly leads to damages based on invalid patents, has been heavily criticized for imposing unjustified cost on the technology industry.³⁰⁶

Better, perhaps, would be to require the successful challenger to pay damages, but only up to the time that the petition for review was filed. Particularly for patents subject to PGR review, a rule that dates the termination of liability this way would encourage very early weeding out of invalid claims. The incidence of these problems would also be minimized if the courts and the PTAB used the same approach to claim construction, for they would then more often reach the same conclusion on validity. In addition, if the Federal Circuit holds to the position it announced on stays in *VirtualAgility*, and if the PTAB develops efficient procedures for consolidating multiple challenges to the same patents, it will less often happen that a patent is upheld in court before it is invalidated by the PTAB.³⁰⁷

But even if the system largely avoids the *Versata* problem, many more subtle questions on the relationships among these procedures remain to be worked out. Not only does the AIA allow a party who lost in litigation to petition for review, it also appears to permit a party that lost a CBM to bring an IPR on any issue not *actually* raised in the CBM, and for their privies to maintain *any* action in the PTO or in court.³⁰⁸ Furthermore, because IPRs

305 See, e.g., *Bristol Locknut Co. v. SPS Techs., Inc.*, 677 F.2d 1277, 1283 (9th Cir. 1982); *Studiengesellschaft Kohle, M.B.H. v. Shell Oil Co.*, 112 F.3d 1561, 1568 (Fed. Cir. 1997); see also generally Andrew C. Michaels, *Tones that Echo from a Past Era of Rigid Jurisprudence: Pre-Challenge Royalties and the Federal Circuit's Shell Test*, 31 SANTA CLARA HIGH TECH. L.J. 543 (2015).

306 See Chien & Helmers, *supra* note 35, at 20–23 (noting the ambiguous effects of bifurcation on decisions to challenge patents and settle litigation); see also generally KATRIN CREMERS ET AL., *INVALID BUT INFRINGED? AN ANALYSIS OF GERMANY'S BIFURCATED PATENT LITIGATION SYSTEM* (2014), https://www.law.berkeley.edu/files/Helmers_Christian_IPSC_paper_2014.pdf; see also RICHARD VARY, *BIFURCATION: BAD FOR BUSINESS* (2012), https://www.unitary-patent.eu/sites/www.unitary-patent.eu/files/nokia_vary_bifurcation.pdf.

307 See *supra* notes 100–01 and accompanying text. The problems will not disappear entirely, however, because there are few time limits on bringing IPRs. Accordingly, district courts can never know for sure when to proceed to trial.

308 The omission of a rule barring unsuccessful CBM petitioners from further action in the PTO is especially difficult to understand—from a timing perspective, it is unlikely that

can raise only questions about novelty and nonobviousness, IPR losers who are then threatened with suit could bring CBMs on other matters. More generally, because the estoppel applies only to specific *claims*, the same parties can file multiple challenges to other claims, even if they are within the same patent or family of patents.³⁰⁹ Also, the AIA did not abolish ex parte reexamination—yet it says nothing about its relationship to the new procedures. Furthermore, both PGRs and IPRs can be brought by *anyone* who is not the patent holder: there are no standing requirements, as there are in court. Many (according to Dolin, nearly one third) of the patents in IPR proceedings are subject to multiple IPR requests;³¹⁰ the same may eventually happen for PGRs.

Indeed, the availability of these procedures appear to be creating new defensive strategies and business models and extending old ones. Patent risk management services like RPX Corporation, and public interest groups such as the Electronic Frontier Foundation (EFF), have begun to file petitions for review.³¹¹ There are even firms—UnifiedPatents is an example—formed specifically to use IPRs to clear the technology space of their members.³¹² Further, generic drug companies are filing IPRs instead of, or in addition to, engaging in Hatch-Waxman litigation,³¹³ and there are a few cases brought by well-known patent aggregators.³¹⁴ Another purported technique, alleged to be practiced by the principals behind the Coalition for Affordable Drugs,

a PGR (which must be filed within nine months of issuance) could follow a written decision in a CBM (which requires that the petitioner have been accused of infringement). However, because standing to bring a CBM requires only that the challenger be “charged” with—and thus, not necessarily “sued” for—infringement, AIA, Pub. L. No. 112-29, § 18(a)(1)(B), 125 Stat. 284, 330 (2011), an IPR, which cannot be brought more than a year after an enforcement action is filed, 35 U.S.C. § 315(b) (2012), could in some cases be instituted even after a CBM proves to be unsuccessful.

309 See, e.g., Petition for Post-Grant Review of U.S. Patent No. 8,684,420, LaRose Indus., LLC v. Choon’s Design, Inc., No. PGR2014-00008 (P.T.A.B. Aug. 5., 2015). This was brought by the same petitioner who brought *LaRose Industries, LLC v. Choon’s Design LLC*, No. IPR2014-00218 (P.T.A.B. June 7, 2014). The IPR ended in an adverse judgment, but the patent holder filed for a new patent, raising the question whether the new claims were patentably distinct from the old ones and if so, whether the patent holder is estopped from arguing their validity.

310 Dolin, *supra* note 111, at 928.

311 See, e.g., *RPX Corp. v. VirnetX Inc.*, Nos. IPR2014-00171, -00172, -00173, -00174, -00175, -00176, and -00177 (P.T.A.B. June 5, 2014) (institution decision); *Elec. Frontier Found. v. Personal Audio, LLC*, No. IPR2014-00070 (P.T.A.B. Apr. 18, 2014) (institution decision).

312 See UNIFIED PATENTS, <http://www.unifiedpatents.com/> (last visited Oct. 13, 2015).

313 See Cyr et al., *supra* note 160.

314 See, e.g., *Intellectual Ventures Mgmt. v. Xilinx, Inc.*, Nos. IPR 2012-00018, -00019, -00020, and -00023 (P.T.A.B. Jan. 24, 2013) (decision addressing Xilinx’s real party in interest); Darlene Ghavimi, *NPEs Can Potentially Use Inter Partes Review to Target the Life Sciences Industry*, FDA FLASH! (June 16, 2014), <http://aiplafda.wordpress.com/2014/06/16/npes-can-potentially-use-inter-partes-review-to-target-the-life-sciences-industry/>; Scott A. McKeown, *NPE Attempts to Exact License by Threat of IPR*, PATENTS POST-GRANT (Aug. 8, 2013), <http://www.patentspostgrant.com/npe-attempts-to-exact-license-by-threat-of-ipr>.

is to simultaneously file a petition and short the patent holder's stock in the hope that the PTAB's actions will depress the stock's price.³¹⁵ The procedures may also be encouraging "reverse trolling": soliciting payments from patent holders for the favor of not filing petitions for review or for settling cases that have been filed.³¹⁶ As Greg Dolin describes it, the result is that "the Damocles sword of post-issuance review perpetually hang[s] over the patentee's head."³¹⁷ Furthermore, while the PTO has created procedures that are swift and efficient, they are far from cheap—what with use of experts and discovery, projected costs are in the range of \$150,000 to \$300,000 per party.³¹⁸ This may be an order of magnitude less than a full-blown trial, but if it is multiplied several times, the cost can put a patent holder in a precarious position. Some of these problems may be solved once the concepts mentioned in the estoppel provisions ("reasonably could have raised," "privy," "real party in interest") are better defined. But the effect of that effort is likely to be limited.

As to the first phrase ("reasonably could have raised"), the patent holder would clearly have been much better protected had Congress prevented parties from asserting grounds they "could have raised"—that is, had the legisla-

315 See Michael Loney, *The Fine Line Between Abuse and Fair Use at the PTAB*, MANAGING INTELLECTUAL PROPERTY (May 27, 2015) <http://www.managingip.com/Article/3456658/The-fine-line-between-abuse-and-fair-use-at-the-PTAB.html> (describing how Bass filed fifteen IPR petitions against seven pharmaceutical companies and allegedly shorted the stock of at least some of these firms); Gene Quinn, *Patent Abuse or Genius? Is Kyle Bass Abusing the Patent System?*, IPWATCHDOG (Apr. 8, 2015), <http://www.ipwatchdog.com/2015/04/08/is-kyle-bass-abusing-the-patent-system/id=56613/>. So far, the PTAB has declined to institute these petitions. See, e.g., *Coal. for Affordable Drugs v. Acorda Therapeutics*, No. IPR2015-00720 (P.T.A.B. Aug. 24, 2015) (institution decision). However, the PTAB has not been willing to sanction Bass. See Kelly Knaub, *PTAB Won't Sanction Bass for AIA Reviews of Drug Patents*, LAW360 (Sept. 25, 2015), <http://www.law360.com/articles/707663>.

316 An example may be New Bay Capital, LLC, an entity that appears to make nothing but which filed several IPRs against VirnetX. See *New Bay Capital, LLC v. VirnetX Inc.*, Nos. IPR2013-00375, -00376, -00377, and -00378 (P.T.A.B. June 23, 2013). According to VirnetX, it then received a request from New Bay for ten percent of a verdict that VirnetX had won in a patent infringement action it had brought against Apple. New Bay later filed motions to terminate the IPRs, possibly in response to threatened subpoenas. See Michelle Carniaux & Michael E. Sander, *The Curious Case of New Bay Capital LLC and VirnetX Inc.*, IPR BLOG (Nov. 22, 2013), <http://interpartesreviewblog.com/curious-case-new-bay-capital-llc-virnetx-inc/>. Indeed, NPEs may be using these procedures as well. See, e.g., *Intellectual Ventures Mgmt. v. Xilinx, Inc.*, Nos. IPR 2012-00018, -00019, -00020, and -00023 (P.T.A.B. Jan. 24, 2013) (decision addressing Xilinx's real party in interest); Ghavimi, *supra* note 314; McKeown, *supra* note 314.

317 Dolin, *supra* note 111, at 883; see also Karen A. Lorang, Comment, *The Unintended Consequences of Post-Grant Review of Patents*, 17 UCLA J. L. & TECH. 1, 19 (2013).

318 See Ken Burchfiel, *USPTO Post-Grant Opposition Costs—A Forum Conveniens for Invalidity Disputes*, USPTO PATENT TRIALS (May 20, 2012), <http://ptopatenttrials.com/2012/05/20/uspto-post-grant-opposition-costs-a-forum-conveniens-for-invalidity-disputes/>; Matthew Cutler, *Why Inter Partes and Post-Grant Review Are Game Changers*, LAW360 (Jan. 8, 2013), <http://www.law360.com/articles/402322/why-inter-partes-and-post-grant-review-are-game-changers>.

ture adopted the formulation in the old inter partes reexamination statute.³¹⁹ However, out of caution that courts would interpret the phrase to require a “scorched-earth search around the world” for prior art, the term was softened.³²⁰ The softening leaves open the question whether “reasonably” is to be interpreted in light of what the challenger could have easily uncovered prior to filing, what it actually knew when the petition was filed, or what it thought could be handled in a single petition, given the strict page and time limits imposed by the PTO.³²¹ The more reasonably the challenger is treated, the higher the cost to the patent holder and to the PTAB. But even if “reasonably” is interpreted to provide the strongest possible protection to the patent holder, there would still be considerable vulnerability. The estoppel applies only to the claims that were challenged. And in CBMs, the estoppel extends only to grounds *actually* raised. While the PGR estoppel provision now reads the same as the IPR provision, there is reason to believe that the legislators thought that the short time frame for seeking review militated in favor of a narrow estoppel and that the error will be fixed in future legislation.³²²

Even more important are the limitations inherent in the second and third phrases: the estoppel provisions apply only to the parties, their “privies,” and “real parties in interest.” While the legislative history indicates that these are to be equitable and practical determinations based on the activities of the parties,³²³ a set of IPRs concerning patents held by VirnetX suggests these concepts may not go very far in protecting patent holders’ interests. In that situation, Apple had been successfully sued by VirnetX for infringement. It then brought seven IPRs to challenge VirnetX’s patent claims, but the petitions were dismissed as untimely, given the earlier litigation.³²⁴ RPX Corporation, to which Apple subscribes, then brought seven IPRs of its own to challenge the same claims.³²⁵ As might be expected, these petitions were all dismissed upon a finding that Apple was the real party in interest, with the Board reasoning that if Apple had been out of time, then so was RPX.³²⁶

319 35 U.S.C. § 315(c) (1999) (current version at 35 U.S.C. § 315(c) (2012)).

320 Matal, *supra* note 7, at 618–19 (quoting 157 Cong. Rec. S1375 (daily ed. Mar. 8, 2011) (statement of Senator Kyl)).

321 The PTAB’s first interpretation of the provision was not informative as all the art raised in the second petition had, in fact, been asserted in the first. *See Dell Inc. v. Elecs. & Telecomms. Research Inst.*, No. IPR2015-00549 (P.T.A.B. Mar. 26, 2015) (institution decision).

322 Matal, *supra* note 7, at 617–18.

323 *Id.* at 619–20.

324 35 U.S.C. § 315(a); *Apple Inc. v. VirnetX Inc.*, Nos. IPR2013-00348, -00349, and -00354 (P.T.A.B. Dec 13, 2013) (institution decision); *Apple Inc. v. VirnetX Inc.*, Nos. IPR2013-00393, -0394, -0397, -0398 (P.T.A.B. Dec. 18, 2013) (same). Apple also tried unsuccessfully to join some IPRs that New Bay Capital had filed. *See, e.g., Apple Inc. v. VirnetX, Inc.*, No. IPR 2013-00354 (P.T.A.B. Dec. 13, 2013).

325 *RPX Corp. v. Virnetx Inc.*, Nos. IPR2014-00171, -00172, -00173, -00174, -00175, -00176, and -00177 (P.T.A.B. June 5, 2014).

326 *Id.* at 10.

Notably however, Apple's mere membership in RPX was not considered enough to bind RPX to the Apple dismissal. Rather, what mattered was the compensation Apple paid to RPX, its suggestion that RPX file against patents of "questionable quality" (which the record showed included the VirnetX patents), the sharing of attorneys and experts, the similarity between Apple's and RPX's petitions, and the fact that Apple was the only RPX subscriber that had a significant interest in the case.³²⁷ Absent these factors—and one must assume that parties will make sure that these factors are absent or, at least not ascertainable, in later cases—industry groups, trade associations, and other patent risk management organizations will likely be able to organize successive attacks on patent portfolios, aimed at debilitating the ability of the patent holder to maintain an effective defense.³²⁸

Now that the Supreme Court has made it clear that decisions of administrative agencies are entitled to preclusive effect on the same standard as court decisions,³²⁹ doctrines of issue preclusion and stare decisis could play an important role in protecting patent holders caught in such multiple challenges. However, because of the relative time frame of these procedures and appeals, these doctrines will be helpful only if cases like *Versata*, where the decision to institute was considered reviewable after the PTAB issued a final written decision, and *Proxycorn*, where the Federal Circuit refused to defer to the PTAB on the merits, are rare. Otherwise reversals will wreak havoc on the system.³³⁰ Rehearings are possible, but the regulation requires they be made within thirty days of a final written decision, well before the Federal Circuit is likely to decide an appeal.³³¹ And even if it is assumed that patent holders can rely on PTAB decisions on law and fact, preclusion doctrines raise their own set of problems.

Once again, the thorniest issue is likely to be claim construction. As we have seen, the PTAB is frequently called upon to interpret the same claims in multiple actions brought by the same or different parties.³³² Often the prob-

327 *Id.* at 8.

328 Significantly, the PTO is considering a proposal to increase discovery on real-party-in-interest issues. *Lee*, *supra* note 37.

329 *B & B Hardware, Inc. v. Hargis Indus., Inc.*, 135 S. Ct. 1293, 1307 (2015) (holding that the Trademark Trial and Appeal Board's decisions are entitled to preclusive effect).

330 In cases where the Federal Circuit does reverse the PTAB, the rules of preclusion would require application of the appellate decision. *RESTATEMENT (SECOND) OF JUDGMENTS* § 27 cmt. o (AM. LAW INST. 2015).

331 37 C.F.R. § 42.71(d) (2014).

332 *See, e.g., Kyocera Corp v. Softview LLC*, No. IPR2013-00004 (P.T.A.B. Mar. 27, 2014) (consolidated in single written decision with *Motorola Mobility LLC v. Softview*, No. IPR2013-00257, since both challenged Patent 7,831,926), *aff'd*, *Softview LLC v. Kyocera Corp.*, 592 F. App'x 949 (Fed. Cir. 2015); *see also Apple Inc. v. Sightsound Techs.*, No. CBM2013-00019 (P.T.A.B. Oct. 8, 2013); *Apple Inc. v. Sightsound Techs.*, No. CBM2013-00020 (P.T.A.B. Oct. 7, 2013). In those cases, the Board considered two challenges to the same set of claims, construed them, and declined to institute in No. CBM2013-000019, but did institute in No. CBM2013-00020; ultimately the Board held the claims unpatentable on the construction used upon institution.

lem of whether the same construction should be used within the PTAB is solved by joining the petitions. More informally, sometimes the same panel decides all the related challenges.³³³ Nevertheless, there have been situations where the question of a claim's construction arose after a final written decision on the same claim. In those cases, the PTAB appears to use the same construction, albeit without specifically stating that it is relying on preclusion principles.³³⁴ When the claim construction is used against the patent holder, this outcome is unremarkable: the construction of the patent holder's claim is a core issue in every case and as long as the claim has not expired, the PTAB always uses the BRI. Accordingly, the same issue arising in the second action was actually litigated, decided, and essential to the judgment in a prior adjudication involving that party that reached a final conclusion.³³⁵ Of course, if a new challenger comes along, that party has the right to seek a different interpretation of the claims. However, unless the challenger has a radically different argument, *stare decisis* should lead to the same result (in this way, *stare decisis* promotes uniform interpretation of patent claims).

Much harder is the question whether the construction announced by the PTAB binds the challenger in court. This problem will, of course, not arise if the claim is cancelled. However, if the claim is *upheld* under the BRI, the patent holder may well seek to enforce the patent against the unsuccessful challenger. In that case, can the accused infringer—who previously argued for a broad claim construction in the PTAB—now argue for a different, narrower, construction in court?³³⁶ The estoppel provisions carefully left it open to the unsuccessful challenger to argue it did not infringe, but infringement is more likely if the claim is interpreted broadly (as in the PTAB) than narrowly (as in court).

Under current practice, there should be no preclusion because the issue of what the claim means *to the ordinary artisan* is not the same as the issue of what constitutes *the broadest reasonable interpretation*.³³⁷ In a way, use of a narrower standard protects the public interest because at the margin, it allows for freer use of advanced technologies. At the same time, however, there is something unseemly about allowing a party to argue for a broad construction

333 See *supra* note 332.

334 See *SAP Am., Inc. v. Lakshmi Arunachalam*, No. CBM2013-00013, at 9 (P.T.A.B. Sept. 18, 2014) (“We addressed the construction of [a certain term] in . . . IPR2013-00194. See *SAP Am., Inc. v. Arunachalam* . . . We apply the same construction in this proceeding.”); see also *Apple, Inc.*, No. CBM2013-00020, at 3; *Apple Inc. v. Sightsout Techs. LLC*, No. CBM2013-00023, at 26 (P.T.A.B. Oct. 7, 2014) (involving different patents, which were heard together and decided separately, but appear to have been resolved through various common issues, including some claim construction, in tandem).

335 RESTATEMENT (SECOND) OF JUDGMENTS § 27 (AM. LAW INST. 2015).

336 Chien and Helmers refer to this as the “Angora cat” play: the cat is fluffed up in the validity proceeding so it looks quite large and wetted down in the infringement action so it appears to be very small. Chien & Helmers, *supra* note 35, at 16.

337 See *B & B Hardware, Inc. v. Hargis Indus., Inc.*, 135 S. Ct. 1293, 1309–10 (2015) (noting that the tribunals must be using the same legal standard).

when it suits its interest in invalidating the patent, and then a narrower construction when the issue is its own infringement.³³⁸ While that would argue for barring the challenger (and only the challenger) from rearguing claim construction, allowing strangers to obtain a different construction—one that allows them to evade a patent enforceable against PTAB challengers—would distort competition among rival users of the same technology. Such a result might also chill use of the review mechanisms, for no one would want to be placed at a competitive disadvantage.

The discrepancy could be avoided by limiting use of the BRI to cases where there was no prior construction of the claim by a district court.³³⁹ But that would require the PTAB to use two different approaches, depending on the order in which parallel proceedings are adjudicated. As argued earlier, it would be much better to eliminate the discrepancy by requiring district courts to adopt the PTAB's approach and apply the BRI or, as Congress is considering,³⁴⁰ requiring the PTAB to use the district court standard. Either way, strangers would of course still not be estopped by the prior construction, but *stare decisis* would apply.³⁴¹ Allowing patent holders to rely on prior PTAB claim constructions in enforcement actions would streamline litigation and provide winning patent holders with a degree of repose.

There are many other issues that arise in the course of PTAB review that could also have relevance in later proceedings.³⁴² These include factual matters, such as the priority date accorded the application, the effective date of references, the level of skill of an ordinary artisan, what the prior art teaches and its accessibility, whether the written description is adequate, and legal questions such as whether the invention is anticipated or obvious, whether the claim is drawn to nonpatentable subject matter, or whether it is fully enabled and distinctly claimed. In some instances, these decisions are made at the institution stage—for example, when the PTAB rejects a challenge based on a finding that the written description is adequate or that certain prior art does not render the invention obvious.³⁴³ Such decisions (decisions

338 The patent holder can play this game (or its inverse) as well. *See* *Motorola Mobility LLC v. Arnouse*, No. IPR2013-00010, at 10 (P.T.A.B. Feb. 11, 2014) (attempting to assert a narrower construction in the PTAB than in court).

339 *Cf.* *Kenny and Forman*, *supra* note 209, at 1084 (suggesting that the PTAB use prior district court claim constructions).

340 S. 1137, 114th Cong. § 11 (Manager's Amendment).

341 *See* *Teva Pharms. U.S., Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 839 (2015) (“[A]ttorneys will no doubt bring cases construing the same claim to the attention of the trial judge; those prior cases will sometimes be binding because of issue preclusion and sometimes will serve as persuasive authority.” (citation omitted)).

342 *See* *Liberty Mutual Ins. Co. v. Progressive Casualty Ins. Co.*, No. CBM2013-00004, at 3 (P.T.A.B. Mar. 13, 2014), *aff'd*, *Progressive Cas. Ins. Co. v. Liberty Mut. Ins. Co.*, No. 2014-1466, 2015 WL 5004949 (Fed. Cir. Aug. 24, 2015). In those cases, the same evidence used in CBM2012-00002 was submitted.

343 There are also situations where there is a decision to institute on some grounds, but not others. *See, e.g.*, *Apple Inc. v. Sightsound Techs.*, No. CBM2013-00023 (Oct. 8, 2013) (institution decision).

not to institute) are, in a sense, final and using them would provide strong protection to the repose interests of patent holders. However, they cannot be accorded preclusive effect. Panels do not regard themselves as bound by decisions such as claim construction made at that stage, even though they give the issues considerable thought and often write long opinions. Furthermore, the decisions lack the safeguards that give rise to administrative estoppel: most glaringly, decisions concerning institution are appealable, if at all, only in connection with a final written decision.³⁴⁴ Nor can they be set aside by suing the PTAB in a district court.³⁴⁵ Notably, the estoppel provisions of the statute turn on whether the review “results in a final written decision,” not a decision to institute.³⁴⁶

In cases where the issues are resolved in a final written decision, different considerations come into play. Because the PTAB and the courts use the same approach to issues other than claim construction,³⁴⁷ there is good reason to give decisions preclusive or stare decisis effect. But there are complications. In some cases, the PTAB grapples with more than one distinct ground of invalidity and there may be a question as to which ground led to the cancellation, for only issues *actually* decided and *essential* to the judgment are entitled to preclusive effect.³⁴⁸ In some cases, neither ground may be precluded; in others (novelty and nonobviousness), the relationship between the issues may be such that the decision is preclusive as to both grounds. In addition, courts distinguish between ultimate and penultimate issues: mediate facts may not be entitled to the same preclusive effect.³⁴⁹ For instance, in a novelty determination, there may be several ways to reach the conclusion that the prior art predated the invention; no particular date should be given preclusive effect because the significance of that date in a later case may be different. Thus, neither the parties nor the decisionmaker may have fully appreciated the need to give it the optimal degree of scrutiny.³⁵⁰

The bottom line is that the *approaches* that the PTAB takes to these issues may be extremely valuable later, for they may form the starting points of

344 35 U.S.C. § 314(d) (2012) (regarding IPR); *id.* § 324(e) (regarding PGR); *Versata Dev. Group, Inc. v. Lee*, 793 F.3d 1306, 1315 (Fed. Cir. 2015) (regarding review of a CBM); *In re Cuozzo Speed Techs., LLC*, 793 F.3d 1268, 1273–74 (Fed. Cir. 2015) (regarding review of an IPR). PTAB decisions to vacate an institution are also not appealable. *See* *GTNX, Inc. v. INTTRA, Inc.*, 789 F.3d 1309, 1311 (Fed. Cir. 2015).

345 *Versata*, 793 F.3d at 1315.

346 35 U.S.C. § 315(e)(1) (regarding PGR).

347 The standard for determining definiteness is arguably an exception, see *supra* note 139 and accompanying text.

348 RESTATEMENT (SECOND) OF JUDGMENTS § 27 cmt. g (AM. LAW INST. 2015).

349 Originally, the first determination of mediate effects never received preclusive effect. *See* *Evergreens v. Nunan*, 141 F.2d 927, 928–31 (2d Cir. 1944). Even now, courts inquire into the relationship between the claims and the opportunities the parties had to litigate. RESTATEMENT (SECOND) OF JUDGMENTS § 27 cmt. c (AM. LAW INST. 2015); DAVID L. SHAPIRO, CIVIL PROCEDURE: PRECLUSION IN CIVIL ACTIONS 54–56 (2001).

350 *Cf. B & B Hardware, Inc. v. Hargis Indus., Inc.*, 135 S. Ct. 1293, 1309–10 (2015) (inquiring as to whether the stakes in the two proceedings were equivalent).

further analysis of particular issues. More important, if potential challengers realize that they are unlikely to procure different views from different PTAB panels, some of the current filing frenzy may peter out. But like the definition of “reasonably” and “privity,” concepts of preclusion will not make Damocles’ sword disappear.

As the PTO is beginning to recognize,³⁵¹ there are many ways in which it could improve the situation itself. The page, discovery, and other limitations may be forcing challengers to split their arguments into multiple petitions (some of which may later be joined by the PTAB).³⁵² Petitioners may also be dividing challenges among industry groups, lest they run afoul of the estoppel provisions. As suggested earlier, it may make sense to alter some of the limits in order to allow petitioners to challenge a single patent or a family of patents more efficiently. There may also be ways to make better use of the power the AIA provides to stay, transfer, consolidate, or terminate petitions that substantially repeat the arguments in other petitions.³⁵³ In particular, the PTO could institutionalize the process of consolidating cases in ways that benefit the patent holder as well as the PTAB.

The PTO (or an ambitious researcher) might also take a hard look at settlements to get a fuller picture of what is going on. The AIA requires that all settlement agreements and collateral agreements referring to settlements be in writing and filed with the PTO.³⁵⁴ Upon request of the parties, these can be kept confidential, but they are available to government agencies and to any person on a showing of good cause.³⁵⁵ As the number of settlements grows, it becomes increasingly important to learn what is going on. Are multiple proceedings forcing patent holders into improvident settlements? Are reverse trolls extracting nuisance payments? Are patent holders paying off petitioners to drop challenges that would have led to the cancellation of claims? As noted earlier, the PTO does not necessarily terminate review

351 See Lee, *supra* note 37.

352 See *Microsoft Corp. v. Proxyconn, Inc.*, Nos. IPR2012-00026 & -00109 (P.T.A.B. Feb. 19, 2014), *rev'd*, 789 F.3d 1292 (Fed. Cir. 2015) (reversing both decisions in a single opinion). Time pressure on the PTAB also forces the parties to narrow their arguments. Cf. *Nichia Corp v. Emcore Corp.*, No. IPR2012-00005, at 51 (P.T.A.B. Feb. 11, 2014) (rejecting a motion to amend claims because the submission caused unnecessary delay and noting that “[t]he burden should not be placed on the Board to sort through Emcore’s patent claims and proposed claims to determine which limitations are added and which limitations are eliminated”), *aff'd*, 599 F. App’x 959 (Fed. Cir. 2015).

353 35 U.S.C. § 315(d) (2012) (regarding IPR); *id.* § 325(d) (regarding PGR); *Conopco, Inc. DBA Unilever v. Proctor & Gamble Co.*, No. IPR2014-00507 (P.T.A.B. July 7, 2014) (using discretionary power to refuse to institute repetitive challenge); Matal, *supra* note 7, at 614 (quoting 157 Cong. Rec. S1042 (daily ed. Mar. 1, 2011) (statement of Senator Kyl) (asserting that the AIA protects against multiple challenges)).

354 35 U.S.C. § 317(b) (regarding IPR); *id.* § 327(b) (regarding PGR).

355 *Id.* Not all agreements are confidential. See, e.g., *MeridianLink v. DH Holdings, LLC*, No. CBM2013-00008 (P.T.A.B. June 24, 2013) (institution decision). The parties in *MeridianLink* settled after the PTAB instituted on some, but not all claims. *MeridianLink*, No. CBM2013-00008. However, it is difficult to draw conclusions from the agreements that are available because the significance of selection effects is difficult to assess.

upon settlement (*Cuozzo* was such a case),³⁵⁶ but the decision to terminate is discretionary.³⁵⁷ With more information about the terms of past settlements, the PTO might, in the future, choose to ask for more information before agreeing to terminations.

The PTO cannot, however, alter the statutory terms of estoppel. Furthermore, it is unlikely to interpret them in ways that significantly cut down on the number of potential challenges or challengers. A broad rule on access has an important benefit: it provides more opportunity to ensure the quality of issued patents. It opens the system to parties with a variety of perspectives on the impact of patents on the public interest. Moreover, it forces the PTO to engage with the consumers of the patent system and to consider arguments that its ordinary “customers”—the patent community—would be unlikely to raise.

B. Public Interest Considerations

The last observation is significant: it suggests that Damocles’ sword has two edges. Congress enacted these procedures because it was concerned that patents of dubious validity were inhibiting innovation and taxing lawful enterprises. Complaints about NPEs asserting poor-quality patents, bringing bogus infringement actions, and extorting licenses had captured legislative attention. Further, there was concern that the cost of challenging these patents in court was too high, that small firms could not afford it and even large ones were waiting to see, hoping someone else would incur the costs so they could free ride on the result.³⁵⁸ The *Myriad* case³⁵⁹ exposed another flaw: because standing in court largely limits the class of potential challengers to entities within the same industrial sector as the patent holder, no one raises questions that call the entire industry’s holdings into question. By the time someone manages, so many patents may have issued, the judges become reluctant to invalidate them.³⁶⁰

Thus, while Congress could protect patent holders from multiple attacks by revising the AIA to limit standing and the PTO could probably, by regulation, enlarge the scope of privity or the concept of real party in interest, these changes would undermine core rationales for establishing the procedures. To put this another way, organizations like RPX, EFF, the Coalition for

356 See *supra* note 255.

357 *Oracle Corp. v. Cmty. United IP.*, No. CBM2013-00015 (P.T.A.B. July 25, 2013) (termination of proceeding).

358 *Patent Trolls: Fact or Fiction? Hearing Before the Subcomm. on Courts, the Internet & Intellectual Property of the Comm. on the Judiciary*, 109th Cong. 1–3 (2006) (statement of Rep. Lamar Smith, Chairman, H. Subcomm. on Courts, the Internet, and Intellectual Prop.).

359 *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107 (2013).

360 See *Ass’n for Molecular Pathology v. U.S. Patent & Trademark Office*, 689 F.3d 1303, 1343 (Fed. Cir. 2012) (“If I were deciding this case on a blank canvas, I might conclude that an isolated DNA sequence that includes most or all of a gene is not patentable subject matter.” (Moore, J., concurring and holding DNA sequences patentable)), *aff’d in part, rev’d in part*, 133 S. Ct. 2107 (2013).

Affordable Drugs, and Unified Patents are, in a sense, the “good guys” in that they solve the collective action problem by pooling the resources of their members. Unified, for example, uses its subscription fees to

monitor troll activity, investigate prior art, challenge troll-owned patents in the U.S. Patent and Trademark Office through ex-parte reexamination and *inter partes* review, and purchase patents before trolls can (but never to purchase patents *from* trolls). When Unified purchases a patent, all . . . members receive an immediate, perpetual license to that patent.³⁶¹

The Electronic Frontier Foundation claims to be saving podcasting;³⁶² the Coalition says it is attacking “pharmaceutical companies sitting on ridiculous patents that are stealing from the American public.”³⁶³ Admittedly, it is important to distinguish between these *defensive* patent aggregators and reverse trolls, who may be using the threat of an IPR for extortionate purposes. One reason to look carefully at what is happening in settlement is to identify criteria that would enable the PTO to sort the cases accurately and in ways that protect the interests of both the public and the patent holder.

If the public value of these procedures is to be maintained, three other matters require attention. First is the question of cost. In most of these cases, the parties rely on several experts, and they often use as much discovery and engage in as much motion practice as the rules and the PTAB permit. As noted earlier, the cost of multiple actions is a heavy imposition on patent holders. But the high cost of pursuing these actions (which also involve filing fees³⁶⁴) may also discourage challengers, especially public interest groups, such as the ones that brought the *Myriad* case (the American Civil Liberties Union and coalitions of scientists interested in conducting fundamental research with the isolated genes *Myriad* had patented).

In very strong cases, these would-be challengers could bypass these procedures and sue in court, with the intent of asking for judgment on the pleadings. Where the grounds for invalidation are based entirely on recent case law (such as *Alice*), an evidentiary record may be unnecessary. Indeed, courts have shown themselves receptive to that approach.³⁶⁵ Litigation has a significant advantage: it avoids having to make anticipatory arguments and

361 MARTA BELCHER & JOHN CASEY, HACKING THE PATENT SYSTEM 4 (May 2014), https://www.eff.org/files/2014/05/29/hacking_the_patent_system.pdf.

362 See Michael Lipkin, *EFF Wins PTAB Attack Against Podcasting Patent*, LAW360 (Apr. 10, 2015), <http://www.law360.com/articles/642071/eff-wins-ptab-attack-against-podcasting-patent> (referencing Elec. Frontier Found. V. Personal Audio, LLC, No. IPR2014-00070 (P.T.A.B. Apr. 18, 2014)).

363 Loney, *supra* note 315, at 4 (quoting Kyle Bass).

364 37 CFR § 42.15 (2014). While the fees start relatively low, they rise with the number of claims challenged. For example, requesting an IPR costs \$9000, with a post institution fee of \$14,000. But requests for IPR review of claims in excess of 20 costs \$200 per claim plus a post-institution fee of \$400 for each claim in excess of 15. CBMs are substantially more expensive. *Id.*

365 See *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014) (affirming a judgment on the pleadings under Federal Rule of Civil Procedure 12(c) and invalidating claims on the basis of *Alice*).

lining up evidence and witnesses so the process can go forward on a tight time frame. The litigation route will not, however, be effective in cases where the lower burden of proof available in the PTAB is critical. Accordingly, the PTO might consider instituting an analogue to judgment on the pleadings. For example, it could develop a fast track for challenges that do not require the kinds of preparation currently devoted to so many of the cases.

Second is the question of attorney choice. Appearance before the PTAB is limited to practitioners registered to practice before the PTO, even though petitions rarely raise issues that only a patent prosecutor can answer. While the Board may recognize backup (but not lead) counsel *pro hac vice*³⁶⁶ and has done so in many proceedings, the requirement limits the choices both parties can make and increases their costs. In many of these reviews, both sides are already involved in litigation, so the requirement can force them to add a new member to the team and invest in bringing him or her up to speed. Also troubling is that only attorneys with “established familiarity with the subject matter at issue in the proceeding” can be recognized *pro hac vice*,³⁶⁷ for this limitation raises the question whether attorneys for groups like the American Civil Liberties Union, the Association for Molecular Pathology, or university counsel will be allowed to appear on behalf of researchers or the public. If not, then the rule will tend to limit the type of issues raised to ones that the patent system already considers on a regular basis.

Even more important is the question of appellate jurisdiction over PTAB decisions. The AIA contemplates broad authority to appeal. It provides that “[a] party dissatisfied with the final written decision” may appeal and “[a]ny party to the . . . review shall have the right to be a party to the appeal.”³⁶⁸ The Federal Circuit has, however, been extremely skeptical of patent challengers,³⁶⁹ and its decision in *Consumer Watchdog v. Wisconsin Alumni Research Foundation*³⁷⁰ (WARF) could make these procedures profoundly unattractive as a means of protecting the public interest.

In that case, a “not-for-profit public charity dedicated to providing a voice for taxpayers and consumers in special interest-dominated public discourse, government and politics,”³⁷¹ challenged WARF’s stem cell patents, which have historically created a substantial obstacle to important life sciences research. The charity lost before the PTAB; when it sought to appeal,

366 37 CFR § 42.10(c).

367 *Id.*

368 35 U.S.C. § 319 (2012) (regarding IPR); *id.* § 329 (regarding PGR).

369 *See, e.g.,* *Medtronic Inc. v. Bos. Sci. Corp.*, 695 F.3d 1266, 1273 (Fed. Cir. 2012) (shifting the burden of proof in a declaratory judgment action for noninfringement), *rev’d sub nom.,* *Medtronic Inc. v. Mirowski Family Ventures, LLC*, 134 S. Ct. 843 (2014); *MedImmune, Inc. v. Genentech, Inc.*, 427 F.3d 958, 964 (Fed. Cir. 2005) (denying standing to licensees seeking to bring declaratory judgment action for invalidity), *rev’d, MedImmune Inc. v. Genentech, Inc.*, 549 U.S. 118 (2007); *see also generally* Burstein, *supra* note 16.

370 753 F.3d 1258 (Fed. Cir. 2014).

371 *Id.* at 1260.

it was denied the right to do so on the ground it lacked standing.³⁷² The patent was upheld in a *reexamination*, and not in one of the new procedures. However, the reexamination statute likewise gives participants a right to appeal.³⁷³ That provision made no difference to the Federal Circuit. Citing *Lujan v. Defenders of Wildlife*³⁷⁴ for the proposition that Congress cannot evade the constitutional limits set out in Article III and *Hollingsworth v. Perry*³⁷⁵ for the principle that the same “constitutional requirements for standing apply on appeal, just as they do before district courts,”³⁷⁶ Judge Rader reasoned that because Consumer Watchdog is not itself engaged in research or commercial activities involving stem cells, it had not sustained an injury in fact, traceable to the challenged action, that could be redressed by judicial action. Thus, he concluded it did not have standing to appeal.

The Supreme Court denied certiorari in the case.³⁷⁷ However, the outcome certainly bears reconsideration in the context of the new procedures, for the inability to appeal will surely chill their use by parties Congress may have been particularly interested in attracting. Significantly, neither *Lujan* nor *Hollingsworth* is directly on point. *Lujan* involved standing to bring an action in an Article III trial court; *Hollingsworth* concerned the right of a party that had not participated in the trial to appeal the district court’s decision. Thus, neither case addressed the right of a party who had suffered judgment to have the adverse decision reviewed. In contrast, the facts in *ASARCO Inc. v. Kadish*³⁷⁸ (which Judge Rader failed to cite) are much closer to those of *Consumer Watchdog*. In *ASARCO*, the Court found jurisdiction to review a state court judgment that invalidated a mining claim, even though under Article III, the petitioners could not have raised their federal question in a federal court in the first instance. The Court applied the *Lujan* analysis (in that sense, the Federal Circuit was correct). However, the Court analyzed the case from an appellate perspective, taking into account the parties’ position *after* the state court judgment was rendered. According to the Court,

[I]t is undisputed that the decision to be reviewed poses a serious and immediate threat to the continuing validity of [petitioners’ interests] The state proceedings ended in a declaratory judgment adverse to petitioners, an adjudication of legal rights which constitutes the kind of injury cognizable in this Court on review from the state courts.³⁷⁹

372 *Id.* at 1261–62; *see also generally* Karl Bergman & Gregory D. Graff, *The Global Stem Cell Patent Landscape: Implications for Efficient Technology Transfer and Commercial Development*, 25 NATURE BIOTECHNOLOGY 419 (2007).

373 35 U.S.C. § 315(b) (1999) (current version at 35 U.S.C. § 315(b) (2012)).

374 504 U.S. 555, 560 (1992).

375 133 S. Ct. 2652 (2013).

376 *Consumer Watchdog*, 753 F.3d at 1260–61.

377 *Consumer Watchdog v. Wis. Alumni Research Found.*, 135 S. Ct. 1401 (2015).

378 490 U.S. 605 (1989).

379 *Id.* at 618; *see also* Joan Steinman, *Shining a Light in a Dim Corner: Standing to Appeal and the Right to Defend a Judgment in the Federal Courts*, 38 GA. L. REV. 813, 839 (2004) (“Unlike standing to sue, which typically attaches to claims, standing to appeal attaches to discrete rulings and issues.”); *cf.* *United States v. Windsor*, 133 S. Ct. 2675, 2686 (2013)

The Court therefore held the petitioners had standing to appeal.

A challenger who loses in the PTAB is in a very similar position to the parties that sought review in *ASARCO*. As we saw, the estoppel effect of PTAB decisions is triggered by the final written decision. Thus, under the statute, the challenger can no longer seek to invalidate the patent claim on any ground it raised—or for PRGs and IPRs, reasonably could have raised—during the PTAB proceeding. Furthermore, in both PRGs and IPRs, the parties who are in privity with the challenger or are considered its real parties in interest are also estopped. In an RPX-type case, for example, that would include RPX members such as Apple. If the concept of privity were expanded as described in the previous Part to protect patent holders from abuse, it would also include other RPX subscribers, all of whom would have to seek licenses to practice patents that may, in fact, be invalid.

Arguably, a party that does not have the right to appeal ought not be estopped. However, it is far from clear the Federal Circuit would see things that way. There is, after all, no federal right to an appeal. Moreover, *ASARCO* dealt with a very similar argument and rejected it on the ground that removing the preclusive effect of the state court judgment would undercut it and, in effect, impose federal standing requirements on a tribunal that is not subject to Article III.³⁸⁰ Furthermore, even if the challengers were not technically precluded, the PTAB judgment could have effects equally adverse to the interests of the challenger, its privies, and its real parties in interest—indeed, adverse to the interests of all members of the relevant industry. Given the lower burden of proof and broader claim construction used by the PTAB (as well as the win/loss statistics presented above), any patent that survives PTAB review becomes essentially “bullet proof.” No jury, for example, is likely to find a patent invalid after being told that the experts on the PTAB (indeed, a “death squad”) had upheld it.³⁸¹

To be sure, there are important differences between *ASARCO* and *Consumer Watchdog*. While the PTAB, like a state court, is a non-Article III tribunal, the respect that the Supreme Court accords to the decisions of the courts of other sovereigns is unlikely to be conferred on the Board, which is merely an arm of a federal administrative agency. Furthermore, in *ASARCO*, the lower court had *invalidated* the petitioners’ mining claims. Thus, they were directly injured by the decision. Because the lower tribunal had *upheld* the patent claim, the harm to *Consumer Watchdog* is different. Nonetheless, a

(permitting the United States to appeal a decision on the constitutionality of the Defense of Marriage Act even though the Executive agreed with the trial court); *Camreta v. Greene*, 131 S. Ct. 2020, 2030 (2011) (permitting a winning party to appeal a decision on qualified immunity in order to dispositively establish the boundaries of a doctrine that will “have a significant future effect”).

380 *ASARCO*, 490 U.S. at 622.

381 *Cf. Gunn v. Minton*, No. 133 S. Ct. 1059 (2013). In *Gunn*, the Supreme Court was not concerned about the effect of a state court decision on a patent law matter. Unlike the PTAB, which deserves considerable deference on its patentability determinations, state court determinations of patent issues have little influence on how federal courts analyze them. *See id.*

validated patent causes harm that is immediate and concrete. For example, the patents RPX was challenging had already been enforced against Apple successfully.

Significantly, the Supreme Court has long endorsed special rules on justiciability in particular classes of cases,³⁸² and these appear to include patent validity cases. As Justice Brennan pointed out in *Franchise Tax Board v. Construction Laborers Vacation Trust*, federal courts have always adjudicated claims of invalidity brought by *alleged* (not merely proven) patent infringers.³⁸³ In *Cardinal Chemical Co. v. Morton International Inc.*, the Supreme Court, having “identified a strong public interest in the finality of judgments in patent litigation,” prevented the Federal Circuit from vacating a finding of patent invalidity, even though the decision in the case rested on the adequate and independent ground that the patent was not infringed.³⁸⁴ The Court was concerned that if the patent was not invalidated, it would “impose[] ongoing burdens.”³⁸⁵ Similarly, in *Electrical Fittings Corp. v. Thomas & Betts Co.*, the Court permitted the party that had won below on a finding of noninfringement to pursue an appeal in order to have a judgment of validity vacated.³⁸⁶ It is also worth noting that the Federal Circuit’s several attempts to restrict the availability of declaratory judgments of invalidity have been rebuffed by the Supreme Court on the theory that “the public . . . has a paramount interest in seeing that patent monopolies . . . are kept within their legitimate scope.”³⁸⁷

Finally, narrowing standing in these cases would not serve the goals of Article III and could do serious mischief.³⁸⁸ While standing is often thought to have a gatekeeping dimension, fees, coupled with the criteria for institution, effectively filter out frivolous challenges. Article III is also said to play a role in screening out cases raising federalism concerns, but patents are federal rights that preempt state law.³⁸⁹ Nor does a narrow standing rule protect the integrity of the adjudicatory system the way that barring ideological

382 See, e.g., *Flast v. Cohen*, 392 U.S. 83, 105–06 (1968) (recognizing taxpayer standing in a class of Establishment Clause cases); see also generally Richard H. Fallon, Jr., *How to Make Sense of Supreme Court Standing Cases—A Plea for the Right Kind of Realism*, 23 WM. & MARY BILL RTS. J. 105, 116, 120, 125 (2014) (giving examples of suits to enjoin criminal prosecutions, appeals by the government when money is at stake, and suits to remove a cloud over an important industry).

383 *Franchise Tax Bd. v. Constr. Laborers Vacation Tr.*, 463 U.S. 1, 19 n.19 (1983).

384 *Cardinal Chem. Co. v. Morton Int’l, Inc.*, 508 U.S. 83, 100 (1993) (relying on *Blonder-Tongue Laboratories, Inc. v. University of Illinois Foundation*, 402 U.S. 313 (1971), which was also concerned with the effect of invalid patents on third parties).

385 *Cardinal Chem.*, 508 U.S. at 101.

386 *Elec. Fittings Corp. v. Thomas & Betts Co.*, 307 U.S. 241 (1939).

387 *Medtronic Inc. v. Mirowski Family Ventures LLC*, 134 S. Ct. 843, 851 (2014) (alteration in original) (internal quotation marks omitted) (quoting *Precision Instrument Mfg. Co. v. Auto. Maint. Mach. Co.*, 324 U.S. 806, 816 (1945)).

388 See Lea Brilmayer, *The Jurisprudence of Article III: Perspectives on the “Case or Controversy” Requirement*, 93 HARV. L. REV. 297, 306 (1979); Steinman, *supra* note 379, at 829–31.

389 *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 152 (1989).

litigants sometimes protects the judiciary from manipulation. Quite the contrary: if the participation of these litigants is chilled, the PTO will once again hear only from those it regulates.³⁹⁰ Instead of being exposed to broader, public-interest-based considerations, the PTO will become as subject to capture as it was before these procedures were instituted. Additionally, these proceedings are important in part because they ameliorate the collective-action problem that the Supreme Court created with its decision in *Blonder-Tongue Laboratories, Inc. v. University of Illinois Foundation* to give nonparties the benefit of a judgment invalidating a patent.³⁹¹ It would be ironic if the Court's Article III standing jurisprudence stood in the way of mitigating *Blonder-Tongue's* damaging side effect.

While Congress cannot ignore the requirements of Article III, the question of who has standing to appeal raises very close questions; the court that considers them would do well to take account of the reasons these procedures were crafted as they were.³⁹² At the very least, the Federal Circuit should look behind the interests of the named petitioner. Unlike other cases involving standing to appeal agency actions, where evidence on the party's relationship to the decision is not readily ascertainable,³⁹³ these procedures require the petition to identify the parties and related matters that would be affected by the proceeding.³⁹⁴

CONCLUSION

As a member of the National Academies Committee that brought attention to the need for (what was then called) post-grant opposition, I read these decisions with deep satisfaction. The PTAB is, indeed, the "technologically sophisticated environment" in which questionable claims can be efficiently challenged.³⁹⁵ The judges display considerable familiarity with the technologies at issue and bring to the adjudication a deep understanding of patent jurisprudence. As the statistics suggest, the petitions target patents of genuinely dubious value. The cases also restore a degree of public confidence in the patent system. For example, while the PTAB has instituted a large number of challenges to patents owned by NPEs, the invalidation rate for these patents has not been particularly high, suggesting that the so-called

390 Brilmayer, *supra* note 388, at 316. Brilmayer observes that standing is more likely to be granted when the issue will not otherwise be litigated—precisely the fear sparked by the Federal Circuit's reluctance to find standing in *Myriad*. *Id.*

391 402 U.S. 313 (1971).

392 *Cf. Lujan v. Defs. of Wildlife*, 504 U.S. 555, 580 (1992) (Kennedy, J., concurring in part and concurring in the judgment) ("In my view, Congress has the power to define injuries and articulate chains of causation that will give rise to a case or controversy where none existed before, and I do not read the Court's opinion to suggest a contrary view.").

393 See Amy J. Wildermuth & Lincoln L. Davies, *Standing on Appeal*, 2010 U. ILL. L. REV. 957, 965–66.

394 See 35 U.S.C. § 312(a)(3) (2012) (regarding IPR); *id.* § 322(a)(3) (regarding PGR); 37 CFR §§ 42.8(b)(1)–(2) (2012).

395 See *supra* note 7 and accompanying text.

trolls may, in fact, be doing more good (by monetizing patent holdings and lowering transaction costs) than harm.

Still, there are many issues that demand further thought. So far, the Federal Circuit has displayed significant reluctance about sharing its authority. Nevertheless, there are both institutional and normative reasons to give the Patent Office a larger role in the development of patent jurisprudence and to allow the PTAB to serve as a true partner in improving patent law and the administration of justice. PTAB decisions are technically superb and offer opportunities for dialogue among courts on open questions, including implementation of Supreme Court cases and the substantive provisions of the AIA. However, the PTAB hews closely to the Federal Circuit tradition of suppressing all discussion of policy. As a result, percolation is not likely to be as effective as it might be. Difficult institutional questions are raised by injecting inter partes adjudication in a specialized agency into a system that also benefits from an expert appellate body.

The multiplicity of procedures creates a great deal of complexity. The rules on estoppel, although fairly detailed, nonetheless expose patent holders to multiple challenges. While there are several straightforward ways to achieve greater repose, the solutions tend to come at the expense of the public interest in weeding out bad patents and the benefits of exposing the PTO to a broader array of concerns. Finding the right balance will therefore be difficult. For both patent holders and challengers, cost is also a significant factor. While the procedures are less costly than litigation, the expense may discourage some challengers and impair the innovation industry's ability to defend—or indeed, to rely on patents to protect business interests. For district courts, multiple proceedings make it difficult to decide when to impose a stay or dissolve it. It may be possible to revise the procedures in ways that promote consolidation, but there are tradeoffs between efficiency and effective process.

While this Article attempted to look beyond the numbers, there is much further work to be done looking at the numbers. Empirical attention to how these challenges proceed could tease out information that might help bring down costs. More analysis of who is using the system would help answer questions about whether the opportunities for harassment outweigh the benefits, especially given the federal courts' current receptivity to judgment on the pleadings. The settlements in particular cry out for investigation. As the numbers rise, the question whether the settlements are abusive, collusive, or improvident becomes increasingly pressing. These procedures also create mixed incentives. Their availability may encourage more careful drafting and due diligence—or they may encourage patent holders to create deeper portfolios of rights in an effort to raise the cost of effectively challenging their exclusivity. Empirical work is necessary to determine which effect dominates.

The PTAB is, indeed, well positioned to give the Federal Circuit a run for its money. It will be interesting to see how the Board tackles the many

substantive questions the AIA raised and how its decisions are received by the Federal Circuit and the Supreme Court.