

QUICK DECISIONS IN PATENT CASES

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Patent litigation is notoriously expensive and time consuming. In the past decade, however, patent law has changed in many ways that expedite resolution of infringement disputes. This article is the first to identify and evaluate the trend toward quick decisions in patent cases. Balancing the savings in litigation costs against the potential for error, the article defends many recent and controversial developments, including the Supreme Court’s invigoration of the patent eligible subject matter requirement, the new administrative proceedings created by the America Invents Act, and changes in the requirements for pleading patent infringement. These developments permit defendants to obtain rulings of invalidity or noninfringement before discovery begins, which was previously impossible. Pre-discovery rulings cost relatively little and can discourage the nuisance litigation that is prevalent in the patent system. But resolving complex questions of validity or infringement on a thin factual record increases the risk of error, so the article suggests additional reforms to help ensure that quick decisions are also accurate decisions.

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INTRODUCTION

In the past decade, the U.S. patent system has been transformed. Before Congress passed the America Invents Act (AIA) in 2011, the validity of issued patents was decided almost exclusively in litigation in the federal courts. Although the Patent and Trademark Office (PTO) offered proceedings to reexamine a patent’s validity, they were not terribly popular, and they rarely ended in a decision of invalidity.¹ Thanks to procedures created by the AIA, however, filings at the PTO have increased from less than a thousand per year as recently as 2010 to nearly two thousand in 2015.² Though there are many ways to parse the data, the new proceedings are perceived to invalidate patents much more frequently than before the AIA.³

The Supreme Court has significantly changed patent law, too. Less than a decade ago, the eligibility requirement of § 101 of the Patent Act was an afterthought, with the Court having suggested that “anything under the sun that is made by man” is eligible for patenting.⁴ In four decisions in the past seven years, however, the Court has invigorated the eligibility requirement, using it to

¹ See generally Paul R. Gugliuzza, *(In)valid Patents*, 92 NOTRE DAME L. REV. 271, 279-85 (2016) (providing an overview of post-issuance proceedings at the PTO).

² See U.S. PAT. & TRADEMARK OFF., EX PARTE REEXAMINATION FILING DATA 1 (Sept. 30, 2016) [hereinafter EX PARTE REEXAMINATION FILING DATA], available at https://www.uspto.gov/sites/default/files/documents/ex_parte_historical_stats_roll_up.pdf; U.S. PAT. & TRADEMARK OFF., INTER PARTES REEXAMINATION FILING DATA 1 (Sept. 30, 2016) [hereinafter INTER PARTES REEXAMINATION FILING DATA], available at https://www.uspto.gov/sites/default/files/documents/inter_parte_historical_stats_roll_up.pdf. U.S. PAT. & TRADEMARK OFF., PAT. TRIAL & APPEAL BD., STATISTICS 1 (Oct. 31, 2016) [hereinafter PTAB STATISTICS], available at https://www.uspto.gov/sites/default/files/documents/aia_statistics_october2016.pdf.

³ For a detailed discussion of invalidity rates in both the new and old proceedings, see *infra* Part III.A.1.

⁴ *Diamond v. Chakrabarty*, 447 U.S. 303, 309 (1980).

invalidate patents on computer software,⁵ medical diagnostics,⁶ human gene sequences,⁷ and financial risk management techniques.⁸

Other changes in patent law abound. To mention just a few: The Supreme Court has made it easier to invalidate a patent as obvious⁹ or indefinite¹⁰ and has increased courts' discretion to award attorneys' fees to the winning party.¹¹ Congress adopted several other reforms in the AIA, including changing the rules for determining priority among competing patent applicants¹² and limiting patentees' ability to join multiple defendants in a single lawsuit.¹³ Amendments to the Federal Rules of Civil Procedure have raised the pleading requirements in patent infringement cases.¹⁴ And patent litigation has become centralized in a small number of judicial districts, most notably, the Eastern District of Texas, which hears nearly half of all patent cases nationwide.¹⁵

These changes have been highly controversial. The former chief judge of the Federal Circuit, for example, famously complained that the PTO judges conducting the new AIA proceedings are a "death squad," "killing" patent rights.¹⁶ Many observers, including a past director of the PTO and another former chief judge of the Federal Circuit, have asserted that the eligibility requirement is threatening innovation by curbing the availability of patents.¹⁷ But it is not just patent applicants and owners who seem threatened by change. Companies that are frequently defendants in patent infringement litigation decry the concentration of cases in East Texas because they perceive the court to be too friendly to patent

⁵ *Alice Corp. v. CLS Bank Int'l*, 134 S. Ct. 2347 (2014).

⁶ *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289 (2012).

⁷ *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107 (2013).

⁸ *Bilski v. Kappos*, 561 U.S. 593 (2010).

⁹ *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398 (2007).

¹⁰ *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120 (2014).

¹¹ *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 134 S. Ct. 1749 (2014); *Highmark Inc. v. Allcare Health Mgmt. Sys., Inc.*, 134 S. Ct. 1744 (2014).

¹² *America Invents Act*, Pub. L. No. 112-29, § 3(b), 125 Stat. 284, 285-86 (2011).

¹³ *Id.* § 19(d)(1), 125 Stat. at 332-33.

¹⁴ Proposed Amendments to the Federal Rules of Civil Procedure (Apr. 29, 2016), [http://www.supremecourt.gov/orders/courtorders/frcv15\(update\)_1823.pdf](http://www.supremecourt.gov/orders/courtorders/frcv15(update)_1823.pdf).

¹⁵ Brian Howard, *2015 End-of-Year Trends*, LEX MACHINA (Jan. 7, 2016), <https://lexmachina.com/lex-machina-2015-end-of-year-trends>.

¹⁶ Tony Dutra, *Rader Regrets CLS Bank Impasse, Comments on Latest Patent Reform Bill*, PAT., TRADEMARK & COPYRIGHT LAW DAILY (Oct. 29, 2013), <http://www.bna.com/rader-regrets-cls-n17179879684>.

¹⁷ See, e.g., Ryan Davis, *Kappos Calls for Abolition of Section 101 of Patent Act*, LAW360 (Apr. 12, 2016), <http://www.law360.com/ip/articles/783604>; Paul R. Michel, *The Supreme Court Saps Patent Certainty*, 82 GEO. WASH. L. REV. 1751, 1754 (2014).

owners.¹⁸ (By the time this article is published, the Supreme Court will have decided a case that could restrict patentees' ability to file their cases in practically any district,¹⁹ amounting to yet another fundamental change in patent law.²⁰) Then there is the scourge of so-called patent trolls—companies that make money not by selling products but by enforcing patents—which has led these frequent defendants to demand many procedural changes to patent litigation (in addition to venue reform²¹), including heightened pleading requirements, cost-shifting in discovery, and mandatory awards of attorneys' fees.²²

Countless scholarly articles have examined patent law's many recent changes (and proposed changes) in isolation.²³ This article, by contrast, takes a holistic approach, identifying many of those changes as part of a previously unrecognized trend toward quick decisions in disputes over patent infringement. The new proceedings at the PTO were, of course, explicitly designed to adjudicate patent validity more efficiently.²⁴ But other changes that appear to be addressing infirmities in the substance of patent law also facilitate quick decisions. For example, the Supreme Court's eligibility rulings are, on their face, designed to limit patent rights on basic research tools and longstanding business practices.²⁵ Yet because eligibility is a pure question of law, courts are increasingly using it to invalidate patents on a motion to dismiss—a procedural tool that is not available

¹⁸ See, e.g., Brief of Amici Curiae 32 Internet Companies, Retailers, and Associations in Support of Petition for Writ of Certiorari 5, *TC Heartland LLC v. Kraft Foods Grp. Brands LLC*, No. 16-341 (U.S. Sept. 27, 2016).

¹⁹ *TC Heartland LLC v. Kraft Food Brands Grp. LLC*, No. 16-341 (U.S. cert. granted Dec. 14, 2016).

²⁰ See generally Brett Kendall, *Supreme Court to Hear Patent Case That Could Limit Venue Shopping*, WALL ST. J. (Dec. 14, 2016), <http://www.wsj.com/articles/supreme-court-to-hear-patent-case-that-could-limit-venue-shopping-1481749533>.

²¹ See Venue Equity and Non-Uniformity Elimination Act of 2016, S. 2733, 114th Cong. That bill will likely be on hold pending the Supreme Court's decision in *TC Heartland*.

²² For an overview of recent legislative proposals, see Paul R. Gugliuzza, *Patent Litigation Reform: The Courts, Congress, and the Federal Rules of Civil Procedure*, 95 B.U. L. REV. 279, 283-87 (2015).

²³ In addition to the sources cited throughout this article, several journals have dedicated entire symposia to one development or another. See, e.g., *Cracking the Code: Ongoing § 101 Patentability Concerns in Biotechnology and Computer Software*, 82 GEO. WASH. L. REV. 1751-1906 (2014); *Who Owns the Controlling Stake in Patent Law?*, 66 AM. U. L. REV. (forthcoming 2017); *Patent Trial and Appeal Board Proceedings*, 25 TEX. INTELL. PROP. L.J. (forthcoming 2017); *Bridging the Gap Between the Federal Courts and the Patent and Trademark Office*, 23 B.U. J. SCI. & TECH. L. (forthcoming 2017).

²⁴ See H.R. REP. NO. 112-98, at 78 (2011).

²⁵ See, e.g., *Alice Corp. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2354 (2014) ("We have 'repeatedly emphasized [the] . . . concern that patent law not inhibit further discovery by improperly tying up the future use of' . . . building blocks of human ingenuity.") (second alteration in original) (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1301 (2012)).

for other, fact-driven prerequisites of patentability, such as nonobviousness and adequate disclosure.²⁶ Similarly, several recent modifications to the law of patent claim construction are ostensibly designed to narrow the scope of patent claims and to provide better notice of their boundaries.²⁷ But because claim construction is a task for the judge alone, not the jury,²⁸ those modifications make it easier to resolve issues of validity and infringement on summary judgment.²⁹ Several other changes to both substantive patent law and the procedural law relevant to patent disputes fit this pattern of facilitating quick decisions, as explained in more detail below.³⁰

Understanding patent law's on-going evolution as increasing speed to decision has several payoffs. Most obviously, it highlights how recent developments have the potential to decrease the costs of patent litigation by ending cases more quickly. Reduced litigation costs can, in turn, help remedy free-rider problems that discourage challenges to patent validity.³¹ Moreover, several of the new mechanisms of quick decisions provide a route to resolve patent disputes *before discovery*, which is when litigation costs begin to quickly escalate³² and which is something patent law has never previously had.

Yet quick decisions also increase the risk of error. For instance, the eligibility requirement allows courts to decide, on the pleadings alone, the arguably fact-driven question of whether a patent contains an "inventive concept" as compared to the prior art. In addition, litigation costs are not always low in cases that end quickly. For example, the new proceedings at the PTO often proceed concurrently with litigation in court, resulting in wasteful procedural maneuvering and duplicative effort.³³ And some mechanisms that resolve patent disputes swiftly, such as unfair import investigations at the U.S. International Trade Commission and the tight deadlines for completing discovery imposed by many district courts, simply shift costs to an earlier stage of the dispute without necessarily reducing them.

²⁶ See *infra* Part III.A.2.

²⁷ See, e.g., *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2124 (2014) (lowering the standard for proving a patent claim invalid as indefinite); *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1349 (Fed. Cir. 2015) (en banc) (adopting a rule of claim construction that subjects more patents to a provision of the Patent Act, 35 U.S.C. § 112(f), that narrows claim scope).

²⁸ *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 390 (1996).

²⁹ See *infra* Part III.B.1.

³⁰ See *infra* Part III.

³¹ See Roger Allan Ford, *Patent Invalidity Versus Noninfringement*, 99 CORNELL L. REV. 71, 110-11 (2013) (discussing the public-good nature of patent invalidity decisions).

³² Greg Reilly, *Linking Patent Reform and Civil Litigation Reform*, 47 LOY. U. CHI. L.J. 179, 199 (2015).

³³ See Peggy P. Ni, *Rethinking Finality in the PTAB Age*, 31 BERKELEY TECH. L.J. 557, 577 (2016).

On balance, however, the trend toward quick decisions seems to be a positive development. Many observers have recently expressed alarm about a proliferation of low-merit claims for patent infringement, particularly by patent assertion entities (PAEs, or, sometimes, non-practicing entities (NPEs), or, pejoratively, patent trolls) who leverage the high cost of litigation to extract nuisance-value settlements.³⁴ A recent study by the Federal Trade Commission suggests that many PAEs habitually settle cases shortly after filing for less than the early-stage costs of defending the suit.³⁵ Allowing accused infringers to obtain quick, inexpensive decisions can discourage that nuisance behavior. Moreover, as explained in more detail below, quick dismissals of unmeritorious claims can incentivize greater ex ante respect for *valid* patents, making patents a stronger incentive for innovation.³⁶ Although it might seem that the optimal solution would be to ensure the PTO does not issue weak patents in the first place, such a small fraction of issued patents are ever asserted that more rigorous examination is probably not worth the effort.³⁷ Full litigation of a patent case on the merits, however, is also quite expensive because patent litigation is complex and the stakes are usually high.³⁸ The emerging mechanisms of quick decisions identified in this article offer a vital compromise between closer examination ex ante and more complete litigation ex post. Quick decisions keep litigation costs down while swiftly disposing of the weakest infringement claims involving the weakest patents.

But, one might wonder, why look to the *procedure* of patent litigation to solve the patent system's problems? Why not further change the *substance* of patent law to make low-quality patents even harder to obtain and infringement claims harder to prove? Emerging evidence suggests that patent litigation generally, and PAE litigation in particular, is associated with declines in research and

³⁴ See JAMES BESSEN & MICHAEL J. MEURER, *PATENT FAILURE: HOW JUDGES, BUREAUCRATS, AND LAWYERS PUT INNOVATORS AT RISK* ch. 9 (2008); Mark A. Lemley & A. Douglas Melamed, *Missing the Forest for the Trolls*, 113 COLUM. L. REV. 2117, 2126 (2013).

³⁵ U.S. FED. TRADE COMM'N, *PATENT ASSERTION ENTITY ACTIVITY 4* (2016), available at https://www.ftc.gov/system/files/documents/reports/patent-assertion-entity-activity-ftc-study/p131203_patent_assertion_entity_activity_an_ftc_study.pdf (estimating those early-stage costs to be about \$300,000); see also Brian J. Love & James Yoon, *Predictably Expensive: A Critical Look at Patent Litigation in the Eastern District of Texas*, 2017 STAN. TECH. L. REV. 1, 24 (reporting, anecdotally, that many cases in the Eastern District of Texas, where plaintiffs are overwhelmingly NPEs, settle for between \$30,000 and \$100,000).

³⁶ See generally Keith N. Hylton, *When Should a Case Be Dismissed? The Economics of Pleading and Summary Judgment Standards*, 16 SUP. CT. ECON. REV. 39, 41 (2008) (exploring how early dismissals of low-merit claims “enhance the average quality or merit of lawsuits, which in turn enhances incentives to comply with the law”); see also *infra* Part II.A.

³⁷ See Mark A. Lemley, *Rational Ignorance at the Patent Office*, 95 NW. U. L. REV. 1495, 1497 (2001).

³⁸ See Reilly, *supra* note 32, at 198 (noting that the stakes of the median civil case in federal court is roughly \$200,000, “which would be an exceptionally low stakes patent case”).

development expenditures and venture capital investment.³⁹ But emerging evidence also suggests that changing substantive patent law does not deter litigation. Despite the significant reforms that have occurred in the past decade, the behavior of participants in the patent system—as measured by the number of patents issued, the number of lawsuits filed, and the patentee win rate in those lawsuits—has been largely unaffected.⁴⁰ Thus, the most important objective for patent reform should be to reduce the social cost of (seemingly inevitable) patent litigation by making it quicker and cheaper while not sacrificing accuracy.⁴¹

The main goal of this article is to develop a framework, grounded in considerations about the speed of patent litigation and the costs of enforcing patent rights, to explain and often to justify numerous controversial changes in patent law and the institutional design of the patent system.⁴² Because this article must cover so many recent developments to substantiate its descriptive claim about the trend toward quick decisions, its normative defense of that trend is admittedly tentative. In future work, I will apply the framework developed here to conduct a more comprehensive evaluation of particular doctrinal changes, starting with a companion piece exploring the tradeoff in cost savings and lost

³⁹ See, e.g., Lauren Cohen et al., Patent Trolls: Evidence from Targeted Firms 4 (Aug. 21, 2016) (Harvard Bus. Sch. Working Paper 15-002), available at <https://ssrn.com/abstract=2464303>; Stephen Kiebzak et al., The Effect of Patent Litigation and Patent Assertion Entities on Entrepreneurial Activity 3-4 (June 16, 2015), available at <https://ssrn.com/abstract=2457611>; Roger Smeets, Does Patent Litigation Reduce Corporate R&D? An Analysis of U.S. Public Firms 3-5 (Apr. 28, 2014), available at <https://ssrn.com/abstract=2443048>; see also Ian Appel et al., Patent Trolls and Small Business Employment 8 (Dec. 18, 2016), available at <https://ssrn.com/abstract=2887104> (linking the passage of state legislation outlawing bad faith assertions of patent infringement to increases in employment in small high-tech firms). For an overview of these new state laws, see generally Paul R. Gugliuzza, *Patent Trolls and Preemption*, 101 VA. L. REV. 1579, 1590-99 (2015).

⁴⁰ Mark A. Lemley, *The Surprising Resilience of the Patent System*, 95 TEX. L. REV. 1, 2 (2016); see also Lauren H. Cohen et al., “Troll” Check? A Proposal for Administrative Review of Patent Litigation 56 (May 8, 2016) (unpublished manuscript) (on file with author) (“[D]espite all the reforms from 2006 through 2014, there is cause for concern that the burdens of patent litigation have only worsened.”).

⁴¹ Lemley, *supra* note 40, at 56.

⁴² Few scholars have used enforcement costs as a mechanism to explain and critique patent law, though this approach has been used in other areas of intellectual property doctrine. See, e.g., Robert G. Bone, *Enforcement Costs and Trademark Puzzles*, 90 VA. L. REV. 2099, 2101 (2004); Robert G. Bone, *A New Look at Trade Secret Law: Doctrine in Search of Justification*, 86 CALIF. L. REV. 241, 279 (1998); Douglas Lichtman, *Copyright as a Rule of Evidence*, 52 DUKE L.J. 683, 687 (2003); William McGeeveran, *Rethinking Trademark Fair Use*, 94 IOWA L. REV. 49, 51-52 (2008); William McGeeveran, *The Trademark Fair Use Reform Act*, 90 B.U. L. REV. 2267, 2280 (2010).

accuracy from the Supreme Court's recent invigoration of the patent eligibility requirement.⁴³

Though this article is more positive than normative, it still identifies several ways in which the trend toward quick decisions could be leveraged to further reduce litigation costs and increase accuracy. For instance, wasteful concurrent litigation in courts and at the PTO could be curtailed by referring all patent validity questions to the PTO, where they would be resolved more efficiently by expert adjudicators. Also, courts might render more accurate decisions on patent eligibility if they properly applied the motion to dismiss framework created by the Supreme Court in *Twombly*⁴⁴ and *Iqbal*,⁴⁵ which requires the judge to consider whether there is a plausible scenario in which the plaintiff could prevail, rather than simply ruling on the patent's inventiveness without giving the patentee the benefit of the doubt, as seems to be the prevailing practice.

The remainder of this article proceeds as follows. Part I provides essential background on the processes of patent litigation in court and administrative review at the PTO. Part II develops a framework, grounded in considerations about enforcement costs, for evaluating the optimal timing of decision in patent cases. It also situates recent changes in patent law within broader trends in the law of civil procedure that favor early resolution of litigation. Part III presents the article's novel descriptive claim, conceptualizing numerous recent changes in patent law as part of a trend toward quick decisions. Drawing on the theoretical framework developed in Part II, Part III also offers a preliminary defense of that trend and identifies several ways in which enforcement costs could be further reduced without unduly sacrificing accuracy. Finally, Part IV looks to the future, arguing that current trends should not be dismissed as merely a backlash against the era of strong patent rights that began in the 1980s. Rather, by thinking critically about how to minimize enforcement costs, judges and policymakers can help moderate the often drastic swings that occur between pro-patent and anti-patent eras.

I. PATENT ADJUDICATION

This article focuses on what I call *patent adjudication*, meaning disputes involving patents that have already been issued by the PTO. (Patent adjudication can be contrasted with pre-issuance *examination* proceedings.) Patent adjudication takes two basic forms: litigation in court and post-issuance review at

⁴³ Paul R. Gugliuzza, *The Procedure of Patent Eligibility* (Feb. 13, 2017) (manuscript on file with author).

⁴⁴ *Bell Atl. Corp. v. Twombly*, 550 U.S. 544 (2007).

⁴⁵ *Ashcroft v. Iqbal*, 556 U.S. 662 (2009).

the PTO.⁴⁶ A primer on those processes, their costs, and their social welfare implications is essential to understanding the remainder of this article.

A. Litigation in Court

Patent infringement lawsuits are the most common type of patent litigation in court. A patentee may file an infringement suit against anyone who makes, uses, sells, or offers to sell the patented invention, as well as anyone who imports the invention into the United States.⁴⁷ In addition to those theories of direct infringement, the patentee may assert claims of indirect infringement against anyone who induces others to infringe the patent or who contributes to infringement by selling, offering to sell, or importing certain components of a patented invention.⁴⁸ In response to an infringement suit, the accused infringer usually asserts both that it does not infringe the patent and that the patent is invalid.⁴⁹ Rather than waiting to be sued for infringement, a potential infringer can instead file its own lawsuit seeking a declaratory judgment of noninfringement, invalidity, or both.⁵⁰

Patent litigation may conclude in many different ways, each with unique implications for social welfare. The vast majority of patent cases settle.⁵¹ After a settlement, the patent remains in force, but the accused infringer usually receives a license to practice the patent or, at minimum, a covenant not to sue. This result saves the parties and the court system the expense of continued litigation, and it may allow the accused infringer to continue operating in the market, albeit usually subject to a royalty payment. But, as a strictly legal matter, the settlement binds only the parties to the case, tempering the social impact.

⁴⁶ If an infringing product is imported into the United States, the patentee may also seek an exclusion order from the U.S. International Trade Commission (ITC). *See* 19 U.S.C. § 1337. I discuss ITC proceedings—which also facilitate quick decisions—in more detail below. *See infra* Part III.B.4.

⁴⁷ 35 U.S.C. § 271(a).

⁴⁸ *Id.* § 271(b)-(c).

⁴⁹ An infringer can also argue that a patent is unenforceable for reasons grounded in equity, such as that the patentee obtained the patent by intentionally deceiving the PTO. *See* *Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276, 1290 (Fed. Cir. 2011) (en banc). Because of the similarity between invalidity and unenforceability, I refer in the text solely to decisions of invalidity, as they are more frequent.

⁵⁰ To file a declaratory judgment suit, the potential infringer must also satisfy a standing requirement, discussed in more detail below. *See infra* Part III.B.3.

⁵¹ *See* Jay P. Kesan & Gwendolyn G. Ball, *How Are Patent Cases Resolved? An Empirical Examination of the Adjudication and Settlement of Patent Disputes*, 84 WASH. U. L. REV. 237, 259 (2006) (“approximately 80% of patent cases settle”); *see also* John R. Allison et. al., *Patent Quality and Settlement Among Repeat Patent Litigants*, 99 GEO. L.J. 677, 689 (2011) (reporting a settlement rate of 90.5%).

Patent litigation can also conclude with a ruling of infringement or noninfringement. Like a settlement, a ruling on infringement does not formally bind those who were not a party to the case, though going-forward consequences for nonparties can be significant. For instance, a patentee who proves infringement might obtain an injunction keeping a competitor out of the market, which could allow the patentee to raise prices. Moreover, some of the court's legal rulings, such as its rulings on claim construction, can be persuasive or even binding in future litigation.⁵² Though a patentee may not use a ruling of patent *validity* to bind newly accused infringers in future cases (principles of due process require that those defendants have the opportunity to personally litigate the invalidity defense),⁵³ the Federal Circuit has stated that a prior decision of validity should be given "weight" by a subsequent court.⁵⁴

A ruling of patent *invalidity*, most observers agree, is the outcome of a patent case that has the greatest effect on social welfare due to the doctrine of issue preclusion, and, in particular, the Supreme Court's seminal decision in *Blonder-Tongue*.⁵⁵ In that case, the Court abandoned the so-called mutuality requirement, which prohibited those who were not a party to a prior case from relying upon the judgment, and held that once a litigant convinces a court to hold a particular patent invalid, any litigant accused of infringing the same patent in the future may use that invalidity decision as a complete defense.⁵⁶ Thus, although patentees may not use a ruling of *validity* offensively in a future case, accused infringers may *defensively* use a prior ruling of *invalidity*.

Blonder-Tongue makes judgments of invalidity more valuable to the public than rulings on infringement or rulings of validity, which receive no preclusive effect.⁵⁷ But *Blonder-Tongue*'s embrace of non-mutual preclusion also makes it likely that fewer rulings of invalidity will be produced than is socially optimal.⁵⁸

⁵² See *e.Digital Corp. v. Futurewei Techs., Inc.*, 772 F.3d 723, 726 (Fed. Cir. 2014) (noting that, under principles of issue preclusion, a nonparty may invoke a favorable claim construction order *against* the patentee in subsequent litigation). Even when preclusion does not apply, a prior construction of the patent's claims can operate as persuasive authority or, if passed upon by the Federal Circuit, receive *stare decisis* effect. See *Burke, Inc. v. Bruno Indep. Living Aids, Inc.*, 183 F.3d 1334, 1337 (Fed. Cir. 1999).

⁵³ *Stevenson v. Sears, Roebuck & Co.*, 713 F.2d 705, 710-11 (Fed. Cir. 1983).

⁵⁴ *Mendenhall v. Cedarapids, Inc.*, 5 F.3d 1557, 1569 (Fed. Cir. 1993).

⁵⁵ See Megan M. La Belle, *Patent Law as Public Law*, 20 GEO. MASON L. REV. 41, 54 (2012); see also *Blonder-Tongue Labs., Inc. v. Univ. of Ill. Found.*, 402 U.S. 313 (1971).

⁵⁶ *Blonder-Tongue*, 402 U.S. at 350.

⁵⁷ See Stephen Yelderman, *Do Patent Challenges Increase Competition?*, 83 U. CHI. L. REV. (forthcoming 2017) (manuscript at 18, 52), available at <https://ssrn.com/abstract=2731216> (noting also that, for the invalidation of a patent to increase market competition, several other conditions must be met).

⁵⁸ Mark A. Lemley & Carl Shapiro, *Probabilistic Patents*, 19 J. ECON. PERSP. 75, 88-90 (2004).

Blonder-Tongue turns invalidity judgments into what economists call a “public good,” something that, like intellectual property itself, others cannot be excluded from using and whose use by one person does not reduce its availability to others.⁵⁹ That is, an accused infringer who invalidates a patent does not internalize all the benefits of the invalidity decision.⁶⁰ Rather, it shares those benefits with other accused infringers—quite often its own competitors—who may free ride on its litigating efforts.⁶¹ Moreover, because one invalidity ruling permanently wipes out the patent, *Blonder-Tongue* raises the stakes of the case from the patentee’s perspective, providing an incentive to settle rather than litigate to a final judgment.⁶²

In addition to increasing the risk that invalidity rulings will be underproduced, *Blonder-Tongue*’s embrace of non-mutual preclusion has several other effects on social welfare. For instance, when the patent owner does decide to fight rather than settle, it will fight harder, raising the cost of litigation to the parties and to the public that funds the court system. In the view of some commentators, this is particularly unfortunate because “patent challengers tend to target the most profitable patents, imposing costs disproportionately on the most socially valuable innovations.”⁶³ *Blonder-Tongue* can also exacerbate the error costs of an inaccurate decision of invalidity, for the owners of those patents will not only pay their litigation costs, “they also lose all future value from their patents.”⁶⁴

In addition to *Blonder-Tongue*’s embrace of non-mutual preclusion, other features of patent litigation nudge accused infringers away from a defense of

⁵⁹ Joseph Scott Miller, *Building a Better Bounty: Litigation-Stage Rewards for Defeating Patents*, 19 BERKELEY TECH. L.J. 667, 687-88 (2004).

⁶⁰ 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, 958 (2004).

⁶¹ See Megan M. La Belle, *Against Settlement of (Some) Patent Cases*, 67 VAND. L. REV. 375, 399-400 (2014) (discussing how free-rider problems incentivize accused infringers to settle). La Belle also discusses the role federal judges—as part of the more general move towards “managerial judging”—have played in encouraging settlement of patent litigation. See *id.* at 411. For a general discussion of public goods and of ways to solve free-rider problems, see Michael J. Meurer, Book Review, *Fair Division*, 47 BUFF. L. REV. 937, 966-67 (1999). Though the public-good nature of an invalidity ruling would seem to discourage infringers from seeking such a ruling, some commentators have postulated that *Blonder-Tongue* incentivizes repeated challenges to patent validity by different litigants because a single finding of invalidity “dooms a patent nationwide.” Alex Kozinski & Daniel Mandell, *It’s Blonder-Tongue All Over Again*, 13 CHI.-KENT J. INTEL. PROP. 379, 380 (2014).

⁶² Note, *Exposing the Extortion Gap: An Economic Analysis of the Rules of Collateral Estoppel*, 105 HARV. L. REV. 1940, 1957 (1992).

⁶³ Anup Malani & Jonathan S. Masur, *Raising the Stakes in Patent Cases*, 101 GEO. L.J. 637, 650 (2013).

⁶⁴ *Id.* at 651.

invalidity and toward a defense of noninfringement. For example, the burden of proving invalidity falls on the party challenging the patent, who must carry that burden by clear and convincing evidence.⁶⁵ By contrast, it is the *patentee's* burden to prove infringement, which it must prove by a preponderance of the evidence.⁶⁶ Moreover, an accused infringer will often have better information about its noninfringement defense than its invalidity defense.⁶⁷ The infringement analysis typically turns on the operation of the defendant's own product or process, whereas invalidity turns on information about the state of the art at the time of the invention—information that is not as easy to obtain, at least before the infringer is required to disclose its invalidity contentions. In many districts, invalidity contentions are due as few as fourteen days after the patentee discloses which patent claims it is asserting.⁶⁸

Nothing prohibits an accused infringer from trying to argue *both* invalidity and noninfringement, but the claim construction process frequently forces the defendant to choose one or the other. Claim construction is usually conducted during discovery and requires the accused infringer to decide—before summary judgment—whether to argue for a narrow construction (which is helpful to a noninfringement argument) or a broad construction (helpful to an invalidity argument).⁶⁹ Assuming claim construction does not entirely resolve the parties' dispute, the court's decision whether to adopt a narrow or broad construction then dictates the accused infringer's most viable defense for the remainder of the case.

In terms of direct litigation costs, the expense of a patent case is comparable to the highest stakes civil litigation.⁷⁰ According to widely cited numbers compiled by the American Intellectual Property Law Association, patent litigation pursued through an appeal costs at least half a million dollars for even the lowest stakes case, and a case in which \$25 million or more is at stake can cost upwards

⁶⁵ *Microsoft Corp. v. i4i Ltd. P'ship*, 564 U.S. 91, 95 (2011).

⁶⁶ *Bene v. Jeantet*, 129 U.S. 683, 688 (1889).

⁶⁷ Ford, *supra* note 31, at 105.

⁶⁸ *E.g.*, N.D. ILL. PAT. R. 2.3; *see also* E.D. TEX. PAT. R. 3-3 (forty-five days after infringement contentions); N.D. CAL. PAT. R. 3-3 (same). Invalidity contentions are a filing that most district courts require in patent cases. They typically must identify each item of prior art that allegedly invalidates the patent, identify the grounds for invalidity established by each item of prior art, include a chart showing where in each item of prior art each element of each asserted patent claim is found, and explain any argument of invalidity for indefiniteness or lack of sufficient disclosure. *See, e.g.*, E.D. TEX. PAT. R. 3-3. The entire process of disclosing infringement and invalidity contentions can conclude within six months of case filing, though the timing varies from court to court and case to case.

⁶⁹ Ford, *supra* note 31, at 94.

⁷⁰ Reilly, *supra* note 32, at 199.

of \$5 million.⁷¹ A large component of the cost of patent litigation—half or more in a typical case—stems from discovery.⁷² The relatively high cost of discovery is often blamed on the “abusive” tactics of PAEs,⁷³ which has fueled recent legislative proposals to restrict the scope of discovery and to shift discovery costs to the requesting party.⁷⁴

But some observers have argued that discovery costs in patent cases are mainly driven by open-ended remedial doctrines that turn on the defendant’s subjective mental state.⁷⁵ For example, under the Patent Act, the patentee may recover up to three times its actual damages if the court determines that infringement was willful.⁷⁶ On this view, one way to reduce costs would be by staging litigation, having potentially dispositive issues such as infringement and validity resolved before any discovery or litigation on damages.⁷⁷

B. Administrative Review at the PTO

The high cost of patent litigation has long led scholars and policymakers to suggest that patent disputes might be more efficiently resolved in administrative proceedings at the PTO.⁷⁸ Congress created the oldest such proceeding, *ex parte* reexamination, in 1980.⁷⁹ In *ex parte* reexamination, any person—though usually it is someone who has been accused of or sued for infringement—can challenge the validity of a patent based on other patents or on printed publications in the prior art.⁸⁰ If a petition raises a “substantial new question of patentability,” the PTO institutes reexamination and the petitioner is excluded from the process from that point forward.⁸¹ Although the PTO grants ninety-two percent of requests to institute reexamination, invalidation is rare.⁸² The PTO cancels all of the challenged claims in only twelve percent of instituted reexaminations.⁸³ Far more

⁷¹ AM. INTELL. PROP. L. ASS’N, REPORT OF THE ECONOMIC SURVEY 37 (2015), *available at* <http://files.ctctcdn.com/e79ee274201/b6ced6c3-d1ee-4ee7-9873-352dbe08d8fd.pdf>.

⁷² Reilly, *supra* note 32, at 198.

⁷³ *Id.* at 183.

⁷⁴ *See* Gugliuzza, *supra* note 22, at 285-86.

⁷⁵ Reilly, *supra* note 32, at 184.

⁷⁶ *See* 35 U.S.C. § 284; Halo Elecs., Inc. v. Pulse Elecs., Inc., 136 S. Ct. 1923, 1932 (2016).

⁷⁷ Reilly, *supra* note 32, at 184.

⁷⁸ *See* Mark D. Janis, *Rethinking Reexamination: Toward A Viable Administrative Revocation System for U.S. Patent Law*, 11 HARV. J.L. & TECH. 1, 36-38 (1997).

⁷⁹ *See* 35 U.S.C. §§ 302-07.

⁸⁰ *Id.* §§ 301-02.

⁸¹ *Id.* §§ 303(a), 305.

⁸² EX PARTE REEXAMINATION FILING DATA, *supra* note 2, at 1.

⁸³ *Id.* at 2.

commonly (in sixty-six percent of instituted proceedings) the patentee amends the claims to preserve their validity.⁸⁴

To give requesting parties the opportunity to play a larger role in the administrative process, Congress in 1999 created inter partes reexamination,⁸⁵ which, in the America Invents Act, evolved into inter partes review. Although inter partes reexamination was mostly ignored,⁸⁶ the new inter partes review proceeding has been extraordinarily popular, with over 4,000 petitions filed in its first four years.⁸⁷ There are several reasons for this. For starters, the proceedings are trial-like. The challenger is allowed to make written submissions and participate in a hearing before the Patent Trial and Appeal Board (PTAB)⁸⁸—an entity created by the AIA and comprised of patent lawyers and former patent examiners.⁸⁹ Also, as discussed in more detail below, inter partes review concludes quickly, usually taking little more than a year.⁹⁰ Finally, but perhaps most importantly, challengers have won often, invalidating all of the instituted claims in over half of proceedings reaching a final decision.⁹¹

In inter partes review, similar to ex parte reexamination, the only grounds for invalidity the challenger may present are anticipation and obviousness.⁹² But the AIA created two additional PTO proceedings that allow patentability challenges on any ground: post-grant review and a temporary program for certain patents on business methods.⁹³ Post-grant review is available only for patents with filing dates on or after March 16, 2013⁹⁴ and must be filed within nine months of patent

⁸⁴ *Id.*

⁸⁵ Optional Inter Partes Reexamination Procedure Act of 1999, Pub. L. No. 106-113, 113 Stat. 1501.

⁸⁶ Among other reasons, the challenger's right to participate was limited to filing written submissions, the proceedings were perceived to be slow, and estoppel provisions required challengers to essentially choose to litigate validity either in reexamination or litigation in court. *See* KIMBERLY A. MOORE, ET AL., PATENT LITIGATION AND STRATEGY 1132-33 (4th ed. 2013).

⁸⁷ PTAB STATISTICS, *supra* note 2, at 3.

⁸⁸ *See* 35 U.S.C. § 316(a).

⁸⁹ *See id.* § 6(a). The PTAB consists of roughly 250 administrative patent judges and hears AIA post-issuance proceedings in three-judge panels. Though the typical background of an administrative patent judge is a patent lawyer or examiner, the statute requires only that they "be persons of competent legal knowledge and scientific ability." *Id.*

⁹⁰ *See infra* notes 153-155 and accompanying text.

⁹¹ *See infra* note 157 and accompanying text.

⁹² 35 U.S.C. § 311(b).

⁹³ *See id.* §§ 321-29; America Invents Act, § 18, Pub. L. No. 112-29, 125 Stat. 284, 329-31 (2011). The business method review proceeding is available only until September 15, 2020. America Invents Act § 18(a)(3).

⁹⁴ America Invents Act § 6(f).

issuance,⁹⁵ so fewer than thirty petitions have been filed to date.⁹⁶ The so-called covered business method review proceeding, which is available for almost any patent that relates to a “financial product or service,”⁹⁷ has been more popular, with nearly 500 petitions filed to date.⁹⁸ As with inter partes review, over half of covered business method proceedings to reach a final decision have resulted in all instituted claims being held unpatentable.⁹⁹

The new administrative proceedings created by the AIA are a direct response to the high cost and long duration of patent litigation. The House Judiciary Committee report on the AIA explicitly states that the purpose of the new proceedings is to “provid[e] quick and cost effective alternatives to litigation.”¹⁰⁰ Survey evidence indicates that inter partes review pursued through appeal costs about \$350,000—well below the cost of the average patent litigation in court.¹⁰¹

The House report also justified the AIA on the low quality of patents being issued by the PTO, asserting that an invigorated system of post-issuance review will “improv[e] patent quality and provid[e] a more efficient system for challenging patents that should not have issued.”¹⁰² The legislative history frames covered business method review in particular as a response to an abundance of “poor business-method patents” issued during the late 1990s and early 2000s that fueled a rise in “patent ‘troll’ lawsuits.”¹⁰³

II. TIMING PATENT ADJUDICATION

Congress’s concern about patent trolls exploiting low-quality patents echoes the concerns of many observers of the patent system. Though patent quality could be improved through more rigorous examination, a completely ex ante solution seems neither realistic nor rational, for it would require an unfathomable

⁹⁵ 35 U.S.C. § 321(c).

⁹⁶ PTAB STATISTICS, *supra* note 2, at 2. Even when eligible patents begin to issue in larger numbers, the proceeding’s popularity may be stymied by estoppel provisions that bar a petitioner from raising in later litigation any argument it raised or could have raised at the PTO. 35 U.S.C. § 325(e)(1).

⁹⁷ The only restriction is that for patents with filing dates on or after March 16, 2013, the nine-month window for seeking post-grant review must have expired, or any post-grant review must have concluded. America Invents Act § 18(a).

⁹⁸ PTAB STATISTICS, *supra* note 2, at 2.

⁹⁹ *See infra* note 158 and accompanying text.

¹⁰⁰ H.R. REP. NO. 112-98, at 78 (2011).

¹⁰¹ AM. INTELL. PROP. L. ASS’N, *supra* note 71, at 38.

¹⁰² H.R. REP. NO. 112-98, at 39-40.

¹⁰³ *Id.* at 54; *see also* BRIAN T. YEH, CONG. RES. SERV., AN OVERVIEW OF THE “PATENT TROLLS” DEBATE 1 (Apr. 16, 2013), <https://fas.org/sgp/crs/misc/R42668.pdf> (noting that “[t]he much-publicized proliferation of PAEs was among the central factors that prompted the AIA”).

expansion of PTO resources to more rigorously examine the nearly 500,000 applications the agency receives every year,¹⁰⁴ particularly when only a small fraction of issued patents are ever enforced. As the AIA illustrates, effective patent reform almost certainly must include post-issuance solutions that can identify weak infringement suits quickly and adjudicate them at low cost. To set the stage for Part III's discussion of how many recent changes in patent law serve that goal, this part sketches a framework, grounded in considerations about enforcement costs, to determine the optimal timing of adjudicating patent disputes. It then situates the recent move toward quick decisions in patent cases by discussing ways in which civil procedure more generally has changed to facilitate fast resolution.

A. An Enforcement Costs Framework

Though many critiques of the patent system center on the behavior of so-called patent trolls (I will generally use the less pejorative term, non-practicing entity, or NPE), those entities' effect on social welfare has been the subject of vigorous debate. As discussed in the introduction, some evidence suggests that NPEs harm innovation, and a recent FTC report suggests that many NPEs are interested solely in obtaining nuisance-value settlements.¹⁰⁵ But NPEs have their defenders. They observe that NPEs can facilitate innovation by helping individuals or small companies monetize inventions,¹⁰⁶ and they criticize studies condemning NPEs both for overestimating the costs of NPE patent assertions¹⁰⁷ and for placing too many patent owners in the NPE category.¹⁰⁸ For my purposes, it is sufficient to note that concerns about NPEs highlight several weaknesses of the current patent system, including the large number of patents issued by the PTO that are probably invalid and the high costs of patent litigation.¹⁰⁹ The key question is whether the system of resolving patent disputes can be reformed to address those weaknesses, regardless of any label affixed to the plaintiff.

¹⁰⁴ See John M. Golden, *Proliferating Patents and Patent Law's "Cost Disease,"* 51 HOUS. L. REV. 455, 487-89 (2013).

¹⁰⁵ See *supra* notes 35, 39; see also James Bessen & Michael J. Meurer, *The Direct Costs from NPE Disputes*, 99 CORNELL L. REV. 387, 389 (2014) (finding that "the estimated direct, accrued costs of NPE patent assertions totaled \$29 billion in 2011").

¹⁰⁶ See Michael Risch, *Patent Troll Myths*, 42 SETON HALL L. REV. 457, 459 (2012).

¹⁰⁷ E.g., David L. Schwartz & Jay P. Kesan, *Analyzing the Role of Non-Practicing Entities in the Patent System*, 99 CORNELL L. REV. 425, 433 (2014).

¹⁰⁸ E.g., Michael Risch, *Framing the Patent Troll Debate*, 24 EXPERT OPINION ON THERAPEUTIC PATENTS 127, 127 (2014).

¹⁰⁹ See Cohen et al., *supra* note 39 at 35; see also Ted Sichelman, *The Vonage Trilogy: A Case Study in "Patent Bullying,"* 90 NOTRE DAME L. REV. 543, 548-49 (2014) (listing several "serious defects in the patent system" including the large number of poor quality patents and the high cost of invalidating them).

The standard economic view is that systems of dispute resolution should aim to minimize enforcement costs, which include both process costs (that is, the parties' private litigation costs plus the public cost of operating the system) and the error costs of over- or under-enforcing legal rights.¹¹⁰ Generally speaking, process costs and error costs are inversely proportional. More intricate decisionmaking processes are more expensive but should yield fewer errors, and vice versa.¹¹¹

Thus, one goal (though by no means the only goal) of the litigation system is to accurately identify low-merit suits, such as suits asserting patents that are likely invalid or that are filed against defendants who probably do not infringe, and to dispose of them at low cost. Otherwise, error costs increase and defendants who have not acted unlawfully (as well as the public) must bear the process costs of unwarranted litigation.¹¹² In the longer run, a system that regularly allows unmeritorious claims to proceed can facilitate strike suits aimed at forcing quick settlements, which is precisely how many observers perceive the patent system to currently work.¹¹³ From an *ex ante* perspective, if patent owners can impose process costs on defendants regardless of the merit of their claims, the incentive to avoid infringement, say, by doing patent searches, can be reduced since litigation is inevitable (an error cost resulting in underdeterrence). If the process costs imposed on defendants are sufficiently large, those defendants may avoid altogether the potentially innovative activities that led them to become litigation targets in the first place (an error cost resulting in overdeterrence).¹¹⁴

Though it is important to provide mechanisms for defendants to obtain quick and inexpensive decisions in cases involving low-merit claims, it is also, of course, imperative to render *accurate* decisions, dismissing only those claims that are, in fact, low merit. But it can be difficult to achieve both low costs and high accuracy when the underlying legal doctrines involve complex and fact-intensive questions.¹¹⁵ Unfortunately, this is largely the case in patent law. For example, nonobviousness¹¹⁶—“the sine qua non of patentability”¹¹⁷—is a fact-intensive inquiry into the scope and content of the prior art, the differences between the prior art and the claimed invention, the level of ordinary skill in the art, and so-

¹¹⁰ See Richard A. Posner, *An Economic Approach to Legal Procedure and Judicial Administration*, 2 J. LEGAL STUD. 399, 400 (1973).

¹¹¹ McGeeveran, *supra* note 42, at 2280.

¹¹² Cohen et al., *supra* note 39, at 17.

¹¹³ See, e.g., U.S. FED. TRADE COMM'N, *supra* note 35, at 8.

¹¹⁴ See Hylton, *supra* note 36, at 46 (discussing the relationship between the social cost of litigation and deterrence).

¹¹⁵ See Bone, *supra* note 42, at 279.

¹¹⁶ 35 U.S.C. § 103.

¹¹⁷ *Roanwell Corp. v. Plantronics, Inc.*, 429 U.S. 1004, 1005 (1976).

called secondary considerations, such as commercial success, long felt but unsolved needs, and failure of others.¹¹⁸ Other key grounds of patent validity—anticipation¹¹⁹ and lack of enablement,¹²⁰ most notably—are likewise heavily fact-dependent.¹²¹ Infringement, too, is a question of fact that usually cannot be resolved until claim construction occurs,¹²² which is usually during or after discovery.¹²³ Likewise, remedial doctrines in patent law are notoriously open-ended and fact-specific, prime examples being the fifteen-factor test applied to determine a reasonable royalty for patent infringement¹²⁴ and the discretionary standard for determining willful infringement.¹²⁵ Consequently, many crucial issues in patent cases are not amenable to quick, low-cost resolution. Though some issues, particularly infringement, can be resolved on summary judgment, by then the parties will have already proceeded through discovery, the most expensive phase of the case.

This discussion of enforcement costs and patent doctrine highlights a key design flaw in the patent system, and one that motivates this entire research project: there are widespread concerns about low-merit infringement claims but key patent law doctrines do not lend themselves to resolution at an early stage of the case. Because it is relatively expensive for a defendant to litigate a patent case to summary judgment (traditionally the earliest point at which a defendant can seek a dispositive ruling), the defendant faces a strong incentive to settle low-merit claims even if the defendant has a solid argument for invalidity or noninfringement. The incentive to settle is particularly unfortunate when the defendant forgoes a meritorious invalidity argument that, under *Blonder-Tongue*, could have invalidated the patent for the benefit of the entire world.¹²⁶ Quick decisions, as we will see, are a compromise that can help fix this design flaw:

¹¹⁸ *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966).

¹¹⁹ A patent is anticipated if all of its limitations are found in a single prior art reference. *See* 35 U.S.C. § 102(a). Nonobviousness, by contrast, is a finding that an invention lacks originality even though the invention is not identically disclosed in a single reference.

¹²⁰ *Id.* § 112(a) (requiring the patent to include “a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains . . . to make and use the same”).

¹²¹ Anticipation is a question of fact, requiring the fact-finder to compare the patent claim to the allegedly anticipating prior art reference. *Key Pharm. v. Hercon Labs. Corp.*, 161 F.3d 709, 714 (Fed. Cir. 1998). Enablement is, like obviousness, a legal question that turns on subsidiary questions of fact about the ability of a person of ordinary skill in the art to recreate the patented invention without undue experimentation. *Brooktree Corp. v. Advanced Micro Devices, Inc.*, 977 F.2d 1555, 1573 (Fed. Cir. 1992).

¹²² *Gen. Mills, Inc. v. Hunt-Wesson, Inc.*, 103 F.3d 978, 981-83 (Fed. Cir. 1997).

¹²³ PETER S. MENELL ET AL., *PATENT CASE MANAGEMENT JUDICIAL GUIDE* 5-5 (3d ed. 2016).

¹²⁴ *Georgia-Pac. Corp. v. U.S. Plywood Corp.*, 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970).

¹²⁵ *See infra* note 375.

¹²⁶ *See supra* note 57.

Improving ex ante patent examination is, as discussed, not worth the candle, but ex post litigation is very expensive. Though they may not be perfectly accurate, as discussed in more detail below, quick decisions provide a middle ground of low-cost adjudication for patents that are plainly invalid or obviously not infringed.

Remarkably, despite the rich literature on the economics of civil procedure,¹²⁷ little has been written from a normative perspective about when and through what procedural mechanism preliminary dismissal decisions should be made.¹²⁸ In one important exception, Keith Hylton has modeled the choice between using pleading standards versus summary judgment as a screening device.¹²⁹ He argues that the rigor of pleading standards should vary based on how difficult it is to satisfy the underlying rule of substantive law and on the social cost of the relevant litigation.¹³⁰ This explains, in Hylton's view, why the law imposes heightened pleading standards for claims such as fraud,¹³¹ which are difficult to prove and impose substantial social costs beyond litigation expenses (for example, reputational harm).¹³² Hylton emphasizes that early dismissals are particularly important for claims that are unlikely to be successful on the merits. Dismissing those claims before they impose significant costs (for instance, on a motion dismiss rather than a motion for summary judgment) can enhance incentives to comply with the law.¹³³

Similarly, Louis Kaplow, in his pathmarking work on multistage adjudication, emphasizes that the decision whether to continue or to terminate a case requires balancing three factors: the increased deterrence that stems from continuation, the possibility that continuation will chill benign acts, and the increased process costs from continuation.¹³⁴ Naturally, these considerations vary considerably in different areas of law and even from one case to another. As Kaplow acknowledges, "implementation of an optimal approach requires challenging contextual judgments by legal decisionmakers."¹³⁵

¹²⁷ For an accessible introduction, see ROBERT G. BONE, *THE ECONOMICS OF CIVIL PROCEDURE* (2003).

¹²⁸ See Louis Kaplow, *Multistage Adjudication*, 126 HARV. L. REV. 1179, 1186 (2013) (identifying this gap in the literature).

¹²⁹ Hylton, *supra* note 36.

¹³⁰ *Id.* at 62.

¹³¹ See FED. R. CIV. P. 9(b).

¹³² Hylton, *supra* note 36, at 41-42.

¹³³ *Id.* at 41.

¹³⁴ Kaplow, *supra* note 128, at 1296.

¹³⁵ *Id.* at 1190.

In this article, I try to provide such a contextual analysis grounded in the law of patents and the process of patent litigation. As a positive matter, this analysis shows how numerous recent changes in the law can be conceptualized as efforts to reduce process costs by resolving patent cases more quickly, without significantly raising the risk of erroneous decisions. As a normative matter, widespread concerns about low-merit infringement claims suggest that providing quick decisions is a reasonable goal. But not all quick decisions are cheap, and quick decisions might sometimes be erroneous, so there are many nuances and complications to be explored.

B. Quick Decisions in Context

Before commencing that analysis, it is worth noting that the move toward quick resolution is not unique to patent law. As has been well documented, the civil trial has been disappearing for nearly a century. In the 1930s, roughly twenty percent of federal civil cases ended with a trial.¹³⁶ Today, that number is less than two percent.¹³⁷ In some respects, the disappearance of the trial reflects a trend toward settlement that has been influenced by numerous factors, including the pre-trial fact development permitted by the Federal Rules of Civil Procedure, the growing importance of institutional litigants who participate in litigation with a view toward long-term interests, and the emergence of judicial case management in which the judge's function is mainly to facilitate settlement.¹³⁸

Recent developments in the law of civil procedure reflect a trend not just toward early settlement but early *decisions*. In three famous cases decided in 1986, the Supreme Court made clear that courts should freely use summary judgment to resolve cases before trial.¹³⁹ More recently, in *Twombly* and *Iqbal*, the Court made it easier to dismiss complaints at the pleading stage by requiring plaintiffs to provide “factual allegations” that “plausibly give rise to an entitlement to relief.”¹⁴⁰ This plausibility standard was previously found in the Court's summary judgment case law,¹⁴¹ and a plausibility analysis makes a

¹³⁶ Stephen C. Yeazell, *The Misunderstood Consequences of Modern Civil Process*, 1994 WIS. L. REV. 631, 633 n.3.

¹³⁷ Marc Galanter, *The Vanishing Trial: An Examination of Trials and Related Matters in Federal and State Courts*, 1 J. EMPIRICAL L. STUD. 459, 462-63 (2004).

¹³⁸ See John H. Langbein, *The Disappearance of Civil Trial in the United States*, 122 YALE L.J. 522, 544-66 (2012).

¹³⁹ *Celotex Corp. v. Catrett*, 477 U.S. 317 (1986); *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574 (1986); *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242 (1986).

¹⁴⁰ *Ashcroft v. Iqbal*, 556 U.S. 662, 679 (2009); *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 556-57 (2007).

¹⁴¹ *E.g.*, *Matsushita*, 475 U.S. at 596 (“[T]he absence of any plausible motive to engage in the conduct charged is highly relevant to whether a ‘genuine issue for trial’ exists within the meaning

motion to dismiss resemble a quick-look decision on the merits.¹⁴² Other recent developments designed to resolve cases more quickly are too numerous to detail, but a full list would include decisions that make it easier for defendants to defeat class actions at the certification stage,¹⁴³ decisions that make it easier for government officials to establish qualified immunity on summary judgment,¹⁴⁴ and decisions that embrace alternative dispute resolution,¹⁴⁵ which is perceived to resolve disputes with greater speed and at lower cost.

The move toward quick decisions in patent cases is in some ways situated within these broader trends. For example, the Supreme Court's summary judgment trilogy facilitated the increased granting of those motions on the issue of infringement.¹⁴⁶ *Twombly* and *Iqbal*, coupled with amendments to the Federal Rules of Civil Procedure, have made it easier for courts in patent cases to grant pre-discovery motions to dismiss.¹⁴⁷ Policy discussions of patent litigation regularly invoke tropes about abusive and frivolous lawsuits—the same rhetoric that has pervaded policy discussions of civil litigation more generally.¹⁴⁸ And many (though not all) of the changes to patent law favor defendants, much like the recent changes in civil procedure.¹⁴⁹

Yet other aspects of the move toward quick decisions in patent cases are unique to patent law. For example, changes in *substantive* patent doctrine, such as the law of patent eligibility and the rules of claim construction, have played a key role in opening procedural routes to quick decisions. Moreover, unlike in the realm of civil procedure, where the Supreme Court is often explicit about its

of Rule 56.”); see generally Suja A. Thomas, *The New Summary Judgment Motion: The Motion to Dismiss Under Iqbal and Twombly*, 14 LEWIS & CLARK L. REV. 15, 29-30 (2010).

¹⁴² Arthur R. Miller, *From Conley to Twombly to Iqbal: A Double Play on the Federal Rules of Civil Procedure*, 60 DUKE L.J. 1, 30 (2010).

¹⁴³ E.g., *Wal-Mart Stores, Inc. v. Dukes*, 564 U.S. 338 (2011).

¹⁴⁴ See generally Jack M. Beermann, *Qualified Immunity and Constitutional Avoidance*, 2009 SUP. CT. REV. 139, 149 (discussing, among other cases, *Harlow v. Fitzgerald*, 457 U.S. 800, 816 (1982), which “dramatically expanded the immunity defense and made it more likely that defendants would prevail before trial” (footnote omitted)).

¹⁴⁵ E.g., *Am. Exp. Co. v. Italian Colors Rest.*, 133 S. Ct. 2304 (2013); *AT&T Mobility LLC v. Concepcion*, 563 U.S. 333 (2011).

¹⁴⁶ Matthew D. Henry & John L. Turner, *Across Five Eras: Patent Validity and Infringement Rates in U.S. Courts, 1929-2006*, 13 J. EMPIRICAL LEGAL STUD. 454, 479 (2016).

¹⁴⁷ See *infra* Part III.A.3.

¹⁴⁸ See Stephen B. Burbank & Sean Farhang, *Litigation Reform: An Institutional Approach*, 162 U. PA. L. REV. 1543, 1598-99 (2014).

¹⁴⁹ See Arthur R. Miller, *Simplified Pleading, Meaningful Days in Court, and Trials on the Merits: Reflections on the Deformation of Federal Procedure*, 88 N.Y.U. L. REV. 286, 304 (2013).

motivation of protecting defendants from litigation costs,¹⁵⁰ the Court rarely mentions enforcement costs when justifying its decisions in patent cases.¹⁵¹ Thus, though current trends in patent litigation are consistent with broader developments in civil procedure, they are also sufficiently unique that independent analysis is warranted.

III. TOWARD QUICK DECISIONS IN PATENT CASES

This part sets out the article’s core descriptive claim, showing how numerous recent changes in patent law facilitate quicker, lower-cost decisions in patent infringement disputes. It also offers a preliminary normative evaluation of those changes, balancing gains in speed and cost savings against potential losses in accuracy.

A. Pre-Discovery Decisions

I focus initially on legal changes that enable pre-discovery resolution of patent litigation, for those developments offer the greatest potential for cost savings.¹⁵²

1. Post-Issuance Review at the PTO.—The new administrative proceedings created by the America Invents Act are the most obvious examples of a move toward resolving patent disputes before the parties incur major expenses in litigation. To begin with, the statute itself imposes rigorous timing requirements. An accused infringer who wishes to pursue inter partes review, for example, must do so within one year of being sued for infringement,¹⁵³ and AIA proceedings must conclude within one year of the PTAB’s decision to institute.¹⁵⁴ In practice, AIA proceedings take an average of fifteen months from filing the petition to final

¹⁵⁰ See, e.g., *Stolt-Nielsen S.A. v. AnimalFeeds Int’l Corp.*, 559 U.S. 662, 685 (2010) (describing “the benefits of private dispute resolution: lower costs, greater efficiency and speed, and the ability to choose expert adjudicators to resolve specialized disputes”); *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 558 (2007) (“[I]t is one thing to be cautious before dismissing an antitrust complaint in advance of discovery but quite another to forget that proceeding to antitrust discovery can be expensive.”) (citation omitted).

¹⁵¹ See *infra* note 238.

¹⁵² There are, to be sure, more fine-grained ways to measure litigation costs than simply examining the stage at which a case was resolved, such as measuring the number of docket entries, party motions, judicial orders, or hearings. See, e.g., Christopher A. Cotropia et al., *Endogenous Litigation Costs: An Empirical Analysis of Patent Disputes* 3 (Jan. 3, 2017), available at <https://ssrn.com/abstract=2893503>. Yet the stage of resolution indisputably provides a rough proxy for overall costs. See, e.g., Kaplow, *supra* note 128, at 1189 (using stage of resolution in a cost-benefit analysis of adjudication timing). Moreover, recent empirical evidence suggests that patent cases resolved at later stages also have increased costs at *earlier* stages, Cotropia et al., *supra*, at 5, underscoring the role of timing of resolution in determining litigation costs.

¹⁵³ 35 U.S.C. § 315(b).

¹⁵⁴ *Id.* §§ 316(a)(11), 326(a)(11); 37 C.F.R. § 42.300(c). The PTAB is allowed to extend this deadline for up to six months with good cause. *E.g.*, 35 U.S.C. § 316(a)(11).

decision.¹⁵⁵ By comparison, the duration of patent litigation from filing to disposition via trial or summary judgment is usually over two-and-a-half years.¹⁵⁶

Moreover, AIA proceedings have provided quick decisions of patent *invalidity*, helping to address the public goods problem discussed above. In inter partes review, for example, the PTAB has held all of the instituted claims unpatentable in nearly seventy percent of proceedings to reach a final decision (859 of 1261).¹⁵⁷ In covered business method review, the PTAB has held all of the instituted claims unpatentable in over eighty percent of proceedings to reach a final decision (118 of 145).¹⁵⁸ To be sure, there are many ways to parse this data. For instance, the PTAB declines to institute proceedings about thirty percent of the time and the parties settle roughly a third of petitions for review (either before or after the PTAB institutes review).¹⁵⁹ So, although the PTAB renders a ruling of invalidity in the vast majority of its final decisions, only a fraction of the claims that are initially challenged reach that stage. Of the 57,781 total claims challenged in inter partes review, only 13,801 (twenty-four percent) have been ruled invalid.¹⁶⁰ Similarly, of the 7929 claims challenged in covered business method review, only 2054 (twenty-six percent) have been invalidated.¹⁶¹ Moreover, the patents challenged in the early years of these new proceedings may be those that are most obviously invalid—many of them issued before changes in the law (discussed below) raised patentability requirements. Invalidity rates could drop once those older patents are eliminated and the PTO better incorporates changes in the law into its examination process.

Regardless of the precise rates of invalidity, however, the new administrative proceedings are indisputably a quicker, cheaper forum for determining patent validity as compared to the courts. These lower-cost proceedings help mitigate incentives that exist in litigation to argue for noninfringement or to settle. Moreover, unlike in litigation between private parties, the PTAB can continue to review the patent's validity even after the parties settle.¹⁶² This occurs most

¹⁵⁵ Brian J. Love & Shawn Ambwani, *Inter Partes Review: An Early Look at the Numbers*, 81 U. CHI. L. REV. DIALOGUE 93, 99 (2014).

¹⁵⁶ Jonathan H. Ashtor, *Opening Pandora's Box: Analyzing the Complexity of U.S. Patent Litigation* 8 (Feb. 22, 2016) (unpublished manuscript), *available at* <http://ssrn.com/abstract=2736556>.

¹⁵⁷ PTAB STATISTICS, *supra* note 2, at 10.

¹⁵⁸ *Id.* at 11.

¹⁵⁹ *See id.* at 10-11.

¹⁶⁰ *Id.* at 12.

¹⁶¹ *Id.* at 13.

¹⁶² 35 U.S.C. §§ 317(a), 327(a).

commonly when the settlement occurs late in the proceedings,¹⁶³ but the PTAB has said it will decline to terminate proceedings when the challenged claims are “clearly . . . unpatentable,”¹⁶⁴ and it has also refused to terminate proceedings when infringement litigation is pending against defendants who are not parties to the PTAB settlement.¹⁶⁵

Yet the existence of concurrent court-PTO litigation undermines the cost savings that would otherwise be provided by the PTO’s streamlined proceedings. Nearly ninety percent of patents involved in AIA proceedings are also involved in litigation.¹⁶⁶ Simultaneous proceedings can both increase litigation expenses and produce uncertainty about a patent’s status as valid or invalid, incentivizing further litigation. In several recent cases, the federal courts have rejected challenges to patent validity but the PTO has subsequently found the same patent to be invalid.¹⁶⁷ The Federal Circuit has attempted to address this problem by adopting a bright-line “absolute finality” rule, holding that whichever proceeding—the court’s or the PTO’s—first reaches an absolute, irrevocable conclusion controls.¹⁶⁸ But that rule is now three years old and district courts and the PTO are still issuing divergent decisions.¹⁶⁹

¹⁶³ *E.g.*, *Blackberry Corp. v. Mobilemedia Ideas LLC*, No. IPR2013-16, at 2-3 (P.T.A.B. Dec. 11, 2013) (declining to terminate inter partes review when the parties settled seven months after institution and one day before a scheduled hearing).

¹⁶⁴ Rules of Practice for Trials Before the PTAB and Judicial Review of PTAB Decisions, 77 Fed. Reg. 48,612, 48,648 (Aug. 14, 2012).

¹⁶⁵ *E.g.*, *Yahoo! Inc. v. Createheads LLC*, No. IPR2014-200, 2015 WL 1009199, at *1 (P.T.A.B. Feb. 26, 2015).

¹⁶⁶ Saurabh Vishnubhakat et al., *Strategic Decision Making in Dual PTAB and District Court Proceedings*, 31 BERKELEY TECH. L.J. 46, 69 (2016).

¹⁶⁷ *See, e.g.*, *Ultratec, Inc. v. Sorenson Commc’ns, Inc.*, No. 13-CV-346, 2015 WL 2248437 (W.D. Wis. May 13, 2015); *Paice LLC v. Hyundai Motor Co.*, No. 12-cv-499 (D. Md. Oct. 7, 2015); *Ford Motor Co. v. Paice LLC*, No. IPR2014-904, 2015 WL 8536745 (P.T.A.B. Dec. 10, 2015); *Ford Motor Co. v. Paice LLC*, No. IPR2014-875, 2015 WL 7695188 (P.T.A.B. Nov. 23, 2015); *InterDigital Commc’ns Inc. v. ZTE Corp.*, No. 13-cv-9 (D. Del. Oct. 28, 2014); *ZTE Corp. v. IPR Licensing, Inc.*, No. IPR2014-525, 2014 WL 10405879 (P.T.A.B. Sept. 14, 2014); *Personal Audio LLC v. CBS Corp.*, No. 2:13-cv-270 (E.D. Tex. Sept. 15, 2015); *Elec. Frontier Found. v. Personal Audio LLC*, No. IPR2014-70, 2014 WL 8584938, at *15 (Apr. 10, 2015).

¹⁶⁸ *See* Gugliuzza, *supra* note 1, at 296-305 (discussing *ePlus, Inc. v. Lawson Software, Inc.*, 789 F.3d 1349 (Fed. Cir. 2015); *Versata Computer Indus. Solutions, Inc. v. SAP AG*, 564 F. App’x 600 (Fed. Cir. 2014); *Fresenius USA, Inc. v. Baxter Int’l, Inc.*, 721 F.3d 1330 (Fed. Cir. 2013)).

¹⁶⁹ For particularly recent examples, see *Apple Inc. v. Smartflash LLC*, No. CBM2015-28, 2016 WL 3035555 (P.T.A.B. May 26, 2016) (PTAB issuing final written decision finding patent to be invalid over a year after a jury returned a verdict in the patentee’s favor on infringement and validity, see *Smartflash LLC v. Apple Inc.*, No. 6:13-cv-447 (E.D. Tex. Feb. 24, 2015)); *WesternGeco LLC v. Ion Geophysical Corp.*, No. 4:09-CV-1827 (S.D. Tex. May 4, 2016) (noting that the Federal Circuit affirmed a jury verdict of infringement one month before the PTAB issued

An on-going dispute involving a patent owned by Tinnus Enterprises, LLC, which covers a toy for filling water balloons, superbly illustrates how parallel proceedings can produce wasteful duplication of effort and uncertain results. In December 2015, the Eastern District of Texas granted Tinnus's motion for a preliminary injunction barring the defendant, Telebrands Corp., from selling its allegedly infringing toy.¹⁷⁰ The court found that Telebrands was unlikely to succeed on its arguments that Tinnus's patent was invalid.¹⁷¹ A year later, however, the PTAB held that Tinnus's patent was, in fact, invalid as indefinite.¹⁷² Despite the PTAB's ruling that the patent was invalid, the Federal Circuit affirmed the preliminary injunction issued by the district court.¹⁷³ The Federal Circuit noted that it was "aware" of the PTAB's decision but that the decision was not binding on the court.¹⁷⁴ Faced with divergent rulings by the Federal Circuit and the PTAB, Telebrands asked the district court to stay the infringement litigation. And the Eastern District—which is notoriously stingy in staying litigation pending PTAB proceedings, particularly if the court has already progressed in the litigation—actually granted Telebrands' motion,¹⁷⁵ highlighting just how plainly wasteful the parallel proceedings appeared to be.

To be sure, in the mine run of cases, district courts stay litigation before the possibility of divergent rulings arises.¹⁷⁶ Moreover, the portion of the AIA that creates the covered business method review program contains a special provision that supporters of the AIA believed to place a "heavy thumb on the scale in favor

a final written decision finding several of the asserted patents to be invalid); *Warsaw Orthopedic, Inc. v. Nuvasive, Inc.*, No. 3:08-cv-1512, 2016 WL 4466973, at *1 (S.D. Cal. June 15, 2016) (patent invalidated in ex parte reexamination after the Federal Circuit affirmed court rulings in the patentee's favor on validity and infringement and remanded for a new trial on damages); *Intellectual Ventures I LLC v. Toshiba Corp.*, --- F. Supp. 3d ---, No. CV 13-453, 2016 WL 7341713, at *13 n. 18 (D. Del. Dec. 19, 2016) (denying motion to stay even though the PTAB had invalidated some of the asserted patent claims, noting that "[w]hile the PTAB has ruled the relevant claims invalid, should the Federal Circuit overturn the PTAB, addressing these additional grounds at trial is more efficient than having to try invalidity on these grounds at a much later date").

¹⁷⁰ *Tinnus Enters., LLC v. Telebrands Corp.*, No. 6:15-CV-551, 2015 WL 11089479 (E.D. Tex. Sept. 11, 2015), *report and recommendation adopted*, 2015 WL 11089480 (E.D. Tex. Dec. 2, 2015).

¹⁷¹ *Id.* at *7.

¹⁷² *Telebrands Corp. v. Tinnus Enters., LLC*, No. PGR2015-18, (P.T.A.B. Dec. 30, 2016).

¹⁷³ *Tinnus Enters., LLC v. Telebrands Corp.*, --- F. 3d ---, No. 2016-1410, 2017 WL 344324 (Fed. Cir. Jan. 24, 2017).

¹⁷⁴ *Id.* at *4 n.7.

¹⁷⁵ *Tinnus Enters., LLC v. Telebrands Corp.*, No. 6:15-CV-551, 2017 WL 379471, at *3 (E.D. Tex. Jan. 24, 2017).

¹⁷⁶ *See, e.g., Love & Ambwani, supra* note 155, at 103 (reporting that district courts have granted roughly eighty percent of motions seeking a stay pending an instituted inter partes review).

of a stay.”¹⁷⁷ Though a stay extends the duration of a court case, if the PTAB invalidates the asserted patents, the stay can result in the litigation being resolved relatively cheaply even though it was technically pending for a year or more.

But it is not uncommon for a court to deny a stay if the accused infringer delays in petitioning the PTO,¹⁷⁸ if there are patent claims in the litigation on which the PTO has not instituted review,¹⁷⁹ if there are non-patent claims included in the complaint,¹⁸⁰ or if the parties are direct competitors in the market.¹⁸¹ Stay practices also vary significantly among the federal district courts. The Eastern District of Texas—the district that handles over forty percent of all cases filed nationwide¹⁸²—has denied over forty percent of stay motions since 2014. By comparison, the Northern District of California, which is consistently one of the top five districts in the number of patent cases filed, has denied only about twenty percent of stay motions during that time period.¹⁸³

Divergent rulings in court and at the PTO are facilitated by the rule that court decisions have no preclusive effect at the PTO, and vice versa. Although the Supreme Court recently confirmed, in a trademark case, that preclusion between the courts and the PTO can be appropriate, the two forums must be applying the same legal standard for preclusion to apply.¹⁸⁴ In patent proceedings, although

¹⁷⁷ 157 Cong. Rec. S1363-65 (daily ed. Mar. 8, 2011) (remarks of Sen. Schumer) (describing America Invents Act § 18(b)(1)(D), which directs courts to consider whether a stay “will reduce the burden of litigation”); *see also* Jonathan Stroud et al., *Stay Awhile: The Evolving Law of District Court Stays in Light of Inter Partes Review, Post-Grant Review, and Covered Business Method Post-Grant Review*, 11 BUFF. INTELL. PROP. L.J. 226, 240 (2015) (reporting that district courts have denied with prejudice less than twenty percent of motions seeking a stay pending instituted covered business method review).

¹⁷⁸ *See, e.g.*, *Universal Elecs., Inc. v. Universal Remote Control, Inc.*, 943 F. Supp. 2d 1028, 1031 (C.D. Cal. 2013) (denying a stay when the accused infringer “did not file its *inter partes* review petitions until almost a year after being served with the complaint”).

¹⁷⁹ *See, e.g.*, *Tire Hanger Corp. v. Mr. Car Guy Concierge Serv. Inc.*, No. 5:14-cv-549, slip op. at 2 (C.D. Cal. June 16, 2015).

¹⁸⁰ *See, e.g.*, *Nippon Steel & Sumitomo Metal Corp. v. POSCO*, No. CIV.A. 12-242, 2013 WL 1867042, at *7 (D.N.J. May 2, 2013) (denying stay pending *inter partes* reexamination in a case involving both patent and unfair competition claims). *But cf.* *Delphix Corp. v. Actifio, Inc.*, No. 13-CV-04613, 2014 WL 6068407, at *3 (N.D. Cal. Nov. 13, 2014) (granting partial stay in a case involving both patent and trade secret claims).

¹⁸¹ *See, e.g.*, *Courtesy Prods., L.L.C. v. Hamilton Beach Brands, Inc.*, Civ. No. 13-2012, slip op. at 3 (D. Del. Sept. 1, 2015).

¹⁸² Dennis Crouch, *The Concentrated Market of Patent Jurisdictions*, PATENTLYO (Oct. 8, 2015), <http://patentlyo.com/patent/2015/10/concentrated-patent-jurisdictions.html>.

¹⁸³ Love & Yoon, *supra* note 35, at 27.

¹⁸⁴ *B&B Hardware, Inc. v. Hargis Indus., Inc.*, 135 S. Ct. 1293, 1299, 1303 (2015). For prior Supreme Court decisions approving of court-agency preclusion more generally, see *Univ. of Tenn. v. Elliott*, 478 U.S. 788, 799 (1986) (holding, in an employment discrimination case, that federal courts must give preclusive effect to factfinding by state administrative agencies); *United States v.*

the courts and the PTO are deciding the same question—does the patent satisfy the requirements of the Patent Act?—the legal standards differ. In court, patent claims are construed consistent with their usual meaning to a person of ordinary skill in the art¹⁸⁵ and the patent challenger must prove invalidity by clear and convincing evidence.¹⁸⁶ The PTO, by contrast, gives claims their broadest reasonable interpretation¹⁸⁷ and invalidity must be proved by a preponderance of the evidence.¹⁸⁸ Though the Federal Circuit in the *Tinnus* litigation did not mention these principles, they provided the court with the basis for simply ignoring the PTAB's ruling of invalidity.

To be clear, a final, case-ending decision that a patent is invalid, either by a court or by the PTO, does bind its counterpart.¹⁸⁹ Moreover, estoppel provisions in the AIA bar petitioners from reasserting in court particular invalidity arguments they made or could have made at the PTAB.¹⁹⁰ But the courts have interpreted those estoppel provisions narrowly, applying them only to arguments on which the PTAB actually instituted review.¹⁹¹ More to the point, many decisions that would be entitled to preclusive effect if the PTO and the courts were applying the same legal standard—such as a ruling in the patentee's favor on the issue of validity, a decision of invalidity in a dispute that has not yet fully concluded, and claim construction rulings—receive no preclusive effect.¹⁹²

The upshot is that the expansion of post-issuance review has led to quick and cheap decisions of patent invalidity in some circumstances. Yet post-issuance review does not exist in a vacuum. Because it can proceed concurrently with litigation and because of the limited availability of preclusion, the end result is sometimes more litigation, more complexity, and higher litigation costs. By

Utah Constr. & Mining Co., 384 U.S. 394, 421-22 (1966) (holding that factfinding by a federal board of contract appeals was binding in subsequent contract litigation in the Court of Claims).

¹⁸⁵ *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc).

¹⁸⁶ *See supra* note 65.

¹⁸⁷ *E.g.*, 37 C.F.R. § 42.100(b); *see also* *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2142 (2016) (approving under *Chevron* the PTO regulation adopting the broadest reasonable interpretation standard).

¹⁸⁸ *Ethicon, Inc. v. Quigg*, 849 F.2d 1422, 1427 (Fed. Cir. 1988).

¹⁸⁹ *See* *Gugliuzza*, *supra* note 1, at 287-92.

¹⁹⁰ 35 U.S.C. §§ 315(e)(2), 325(e)(2).

¹⁹¹ *See, e.g.*, *Intellectual Ventures I LLC v. Toshiba Corp.*, --- F. Supp. 3d ---, No. CV 13-453, 2016 WL 7341713, at *13 (D. Del. Dec. 19, 2016) (citing *Shaw Indus. Grp., Inc. v. Automated Creel Sys., Inc.*, 817 F.3d 1293 (Fed. Cir. 2016)).

¹⁹² *But see* Timothy R. Holbrook, *The Patent Trial and Appeal Board's Evolving Impact on Claim Construction*, 24 TEX. INTEL. PROP. L.J. 301, 332 (2016) (suggesting, based on the similarities between PTAB proceedings and district court litigation, that PTAB claim constructions could be entitled to preclusive effect in district court litigation, and vice versa).

staying litigation pending PTO review in most cases, the courts have attempted to make the current system as efficient as possible.

Any change to more effectively coordinate court and PTO proceedings would probably have to come from Congress. One option would be to have the courts and the PTO apply the same standards of claim construction and burdens of proof, to enhance the preclusive effects of rulings between the two tribunals. The Supreme Court recently approved the PTO's application of the broadest reasonable interpretation standard of claim construction in AIA proceedings, giving the PTO *Chevron* deference despite arguments that the standard facilitated inconsistent rulings.¹⁹³ Yet the PTO's justifications for applying the broadest reasonable interpretation standard in AIA proceedings are dubious. For instance, the PTO has asserted that the standard is justified by "a party's ability to amend claims to avoid prior art."¹⁹⁴ But the opportunity to amend claims is very limited in AIA proceedings,¹⁹⁵ and the PTAB has granted few motions to amend.¹⁹⁶ The PTO has also justified the broadest reasonable interpretation standard on the ground that it has "for nearly thirty years" applied that standard in reexamination proceedings,¹⁹⁷ implying that it would be unprecedented or impractical to apply the courts' "ordinary meaning" standard in AIA proceedings. Yet reexamination is fundamentally different than AIA proceedings, a point the PTAB itself has emphasized in refusing to give preclusive effect to its own reexamination decisions in AIA proceedings.¹⁹⁸ In reexamination, amendments are liberally permitted—indeed, claim amendment is the most common outcome of *ex parte* reexamination (which survives the enactment of the AIA).¹⁹⁹ Moreover, if the PTO were to apply the ordinary meaning standard in AIA proceedings, the different standards would usually be applied by different decisionmakers—the

¹⁹³ *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2142, 2146 (2016).

¹⁹⁴ Rules of Practice for Trials Before the PTAB, *supra* note 164, at 48,688 (citing *In re Yamamoto*, 740 F.2d 1569, 1571 (Fed. Cir. 1984)).

¹⁹⁵ *See, e.g.*, 35 U.S.C. § 316(d)(1) (allowing the patent owner to file only one motion to amend); *see also In re Aqua Prods, Inc.*, 823 F.3d 1369, 1373 (noting that the PTAB has interpreted its regulations "as placing the burden on the patentee to show that the proposed amendments would make the claims patentable over the known prior art," rather than placing the burden on the challenger to prove *unpatentability*), *reh'g en banc granted, opinion vacated*, 833 F.3d 1335 (Fed. Cir. 2016).

¹⁹⁶ U.S. PAT. & TRADEMARK OFF., MOTION TO AMEND STUDY 6 (Apr. 30, 2016), <http://www.uspto.gov/sites/default/files/documents/2016-04-30%20PTAB%20MTA%20study.pdf> (reporting that the PTAB granted only six motions to amend in the first three-and-a-half years of AIA proceedings).

¹⁹⁷ Rules of Practice for Trials Before the PTAB, *supra* note 164, at 48,697-98.

¹⁹⁸ *See BioDelivery Sci. Int'l Inc. v. Monosol Rx, LLC*, No. IPR2015-169, at 17 (P.T.A.B. Mar. 24, 2016) ("[*I*nter partes review under the AIA offers a significant procedural opportunity to the parties that was not available in the prior *inter partes* reexamination proceeding . . .").

¹⁹⁹ *See supra* note 84.

broadest reasonable interpretation standard would be applied by the examiners who conduct reexamination, whereas the ordinary meaning standard would be applied by the three-judge panels of the PTAB who conduct AIA proceedings. And, in any case, it would not be unusual for the same PTO employee to apply different claim construction standards. The PTO has long applied the ordinary meaning standard in reexaminations involving expired patents because those patents cannot be amended.²⁰⁰ In short, any practical concerns about the PTO's ability to apply the ordinary meaning claim construction standard in AIA proceedings seem overblown. If the PTO applied that standard, there would be more preclusion between the courts and the PTO and the inefficiencies of parallel proceedings would be reduced.

Another option to facilitate preclusion between the courts and the PTO would be to have both tribunals apply the same burden of proof on the question of invalidity. Congress has two basic options on that score. First, it could require the PTAB to apply the clear-and-convincing evidence standard that currently applies in court. That standard, however, is a form of judicial deference to agency decisionmaking,²⁰¹ and it makes little sense to say that a three-judge panel of the PTAB should defer to a prior decision by a single examiner. The other option would be to eliminate the presumption of validity or to at least provide that it does not apply to all patents. If, as many believe, the PTO issues too many patents that do not actually satisfy the requirements for patentability, then the clear-and-convincing evidence standard improperly insulates many patents from invalidity challenges.²⁰² Indeed, the decision to issue a patent, made by a single examiner with limited time to allocate to the task, does not seem like the type of reasoned decisionmaking to which court deference is typically appropriate.²⁰³

The most radical efficiency-enhancing solution would be to adopt a regime of staged adjudication in which the PTO first and exclusively resolves all issues of validity and then the court decides infringement and remedies.²⁰⁴ Staged adjudication would offer several benefits. First, it would provide the public with

²⁰⁰ *In re CSB-Sys. Int'l, Inc.*, 832 F.3d 1335, 1341 (Fed. Cir. 2016).

²⁰¹ 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, 281-82 (2007).

²⁰² See Doug Lichtman & Mark A. Lemley, *Rethinking Patent Law's Presumption of Validity*, 60 STAN. L. REV. 45, 49-51 (2007) (proposing to limit the presumption of validity to situations where patent owners have submitted to a more rigorous initial examination or where a court, the ITC, or the PTO has already reevaluated validity and found in the patentee's favor).

²⁰³ See *Skidmore v. Swift & Co.*, 323 U.S. 134, 140 (1944) (noting that the deference courts give to an agency decision "will depend upon the thoroughness evident in [the agency's] consideration, the validity of its reasoning, its consistency with earlier and later pronouncements, and all those factors which give it power to persuade, if lacking power to control").

²⁰⁴ For a proposal along these lines, see Michael Goodman, *What's So Special About Patent Law?*, 26 FORDHAM INTELL. PROP., MEDIA & ENT. L.J. 797, 848-53 (2016).

more decisions on patent validity in the relatively quick and inexpensive forum of the PTO. Second, a PTO *affirmation* of validity, though it would formally bind only those infringers who were parties to the administrative proceeding,²⁰⁵ would generate useful information that could lead to reduced litigation costs. In future disputes, the PTO would likely treat its own prior ruling as highly persuasive,²⁰⁶ which would discourage future accused infringers from relitigating validity. Finally, staged adjudication could result in more accurate decisions on validity because PTAB judges are experts in particular areas of technology.²⁰⁷

Staged adjudication, however, could extend the overall duration of proceedings, particularly in cases in which the PTO affirms the patent's validity but there are close questions on infringement. In addition, a delay in obtaining an injunction could impose irreparable harm on a patentee who is forced to share a market with an infringing competitor. Because patent validity could be resolved more quickly and cheaply at the PTO, parties would also be incentivized to challenge more patents, potentially increasing overall litigation costs.²⁰⁸ But, as discussed, decisions of patent invalidity are inherently underproduced, so that increase in litigation might be seen as correcting a market failure.

In sum, the streamlined proceedings created by the AIA seem, at first blush, to represent a significant savings in enforcement costs. Yet numerous complexities remain, particularly in the relationship between those proceedings and concurrent infringement litigation in the federal courts. Finding ways to better coordinate court and PTO proceedings is critical to realizing the efficiency gains that the PTO's quick decisions can provide.

2. *Patent-Eligible Subject Matter*.—Although Congress created the new AIA proceedings for the specific purpose of expediting resolution of patent disputes, other recent developments in patent law achieve the same goal, albeit less explicitly. The foremost example is the doctrine that has changed most dramatically in the past decade: patent-eligible subject matter.

²⁰⁵ See *Hansberry v. Lee*, 311 U.S. 32, 40 (1940).

²⁰⁶ To draw an analogy, when a patent's validity is confirmed in *ex parte* reexamination, courts have typically give that decision some weight in subsequent litigation. See *Custom Accessories, Inc. v. Jeffrey-Allan Indus., Inc.*, 807 F.2d 955, 961 (Fed. Cir. 1986).

²⁰⁷ Cf. John F. Duffy, *On Improving the Legal Process of Claim Interpretation: Administrative Alternatives*, 2 WASH. U. J.L. & POL'Y 109, 130-31 (2000) (discussing the expertise of the PTO on patent claim interpretation as a reason for courts to defer to the PTO's interpretation of patent claims).

²⁰⁸ See William M. Landes, *Sequential Versus Unitary Trials: An Economic Analysis*, 22 J. LEGAL STUD. 99, 100-01 (1993) (noting that sequential trials increase the plaintiff's incentive to sue and increase the number of lawsuits).

Section 101 of the Patent Act permits patents on any new and useful “process, machine, manufacture, or composition of matter.”²⁰⁹ Despite that broad language, courts have long recognized implicit limits on the types of inventions eligible for patenting. In simplest terms, scientific principles, natural laws, and abstract ideas are not patent eligible,²¹⁰ but specific *applications* of those principles, laws, and ideas are.²¹¹ By many accounts, the Federal Circuit and the PTO eroded limitations on patent eligibility in the 1990s and early 2000s. During that period, the PTO issued many patents on software and business methods, which, because of their inherently abstract nature, had poorly defined boundaries.²¹² This led to high rates of litigation²¹³ even though patents are not thought to be an important incentive for innovation in those areas.²¹⁴ Increased patenting of early-stage biotechnology, such as naturally occurring gene fragments, also created worries about an emerging anticommons—that any practical gene therapy would require the simultaneous use of many different patents.²¹⁵

Many of these newly issued patents on software, business methods, and basic biotechnology, even if patent eligible under prevailing § 101 doctrine, should not, in the view of many observers, have satisfied other requirements of patentability, particularly the nonobviousness requirement of § 103. In 2003, the Federal Trade Commission issued a widely read report arguing that the Federal Circuit had made it too difficult to invalidate a patent as obvious,²¹⁶ as part of a broader critique of

²⁰⁹ 35 U.S.C. § 101.

²¹⁰ *E.g.*, *Gottschalk v. Benson*, 409 U.S. 63, 71-72 (1972) (holding that a mathematical formula is not patent eligible); *Funk Bros. Seed Co. v. Kalo Inoculant Co.*, 333 U.S. 127, 131 (1948) (holding ineligible for patenting a composition of two naturally occurring bacteria).

²¹¹ *E.g.*, *Diamond v. Diehr*, 450 U.S. 175, 187 (1981) (holding patent eligible a method of molding rubber that used a mathematical formula); *Diamond v. Chakrabarty*, 447 U.S. 303, 309 (1980) (holding patent eligible a man-made bacterium).

²¹² BESSEN & MEURER, *supra* note 34, ch. 9. For a challenge to the conventional wisdom that the Federal Circuit facilitated the explosion of business method patents, see John F. Duffy, *Why Business Method Patents?*, 63 STAN. L. REV. 1247, 1251-52 (2011), which argues that the growth of those patents was driven largely by the introduction of mathematical and scientific techniques into the fields of economics and business.

²¹³ BESSEN & MEURER, *supra* note 34, at 152-53; *see also* Michael J. Meurer, *Controlling Opportunistic and Anti-Competitive Intellectual Property Litigation*, 44 B.C. L. REV. 509, 542 (2003) (noting that business method patents present a high risk of “opportunistic lawsuits” because independent invention is likely and surveillance of research activity by other potential inventors is difficult).

²¹⁴ Rochelle Cooper Dreyfuss, *Are Business Method Patents Bad for Business?*, 16 SANTA CLARA COMPUTER & HIGH TECH. L.J. 263, 275 (2000).

²¹⁵ DAN L. BURK & MARK A. LEMLEY, *THE PATENT CRISIS AND HOW THE COURTS CAN SOLVE IT* 87-89, 124 (2009).

²¹⁶ U.S. FED. TRADE COMM’N, *TO PROMOTE INNOVATION: THE PROPER BALANCE OF COMPETITION AND PATENT LAW AND POLICY* 10 (2003), *available at* <https://www.ftc.gov/sites/default/files/documents/reports/promote-innovation-proper-balance-competition-and-patent-law-and-policy/innovationrpt.pdf>.

the court's doctrine for overvaluing patent rights and undervaluing market competition as an incentive for innovation.²¹⁷ Similarly, in an influential book published in 2008, Jim Bessen and Mike Meurer argued that the Federal Circuit had, over the preceding two decades, overseen a proliferation of patents on trivial inventions, particularly in the field of computer software.²¹⁸ Commentators also criticized the Federal Circuit's obviousness case law in the area of biotechnology.²¹⁹

For roughly two decades, the Federal Circuit required, as prerequisite to finding obviousness, that courts or patent examiners identify a specific "teaching, suggestion, or motivation" to combine prior art references.²²⁰ This can be a difficult task, particularly with software and business methods, where key references are often hidden as source code in a commercial product or consist of common knowledge of a general business practice.²²¹ In 2007, the Supreme Court overruled the "teaching, suggestion, or motivation" test.²²² The Court instead emphasized that the obviousness analysis should be "expansive and flexible" and that a finding of obviousness can be based on market demands, design incentives, or even the common sense of a person having ordinary skill in the art.²²³

Separate and apart from the eligibility doctrine of § 101, a strengthened requirement of nonobviousness helps ameliorate the problems created by the generous standards of patentability that the Federal Circuit and the PTO had embraced. As discussed above, however, obviousness is a poor vehicle for *quickly* invalidating a patent because it is based on underlying questions of fact, so a patent cannot be invalidated for nonobviousness before summary judgment.²²⁴ The same goes for other key grounds of invalidity, such as

²¹⁷ See Tejas N. Narechania, *Patent Conflicts*, 103 GEO. L.J. 1483, 1493-95 (2015) (describing the tension between the Commission and the Federal Circuit on matters of innovation policy).

²¹⁸ BESSEN & MEURER, *supra* note 34, at 212-13.

²¹⁹ See, e.g., Dan L. Burk & Mark A. Lemley, *Is Patent Law Technology-Specific?*, 17 BERKELEY TECH. L.J. 1155, 1179 (2002); Arti K. Rai, *Intellectual Property Rights in Biotechnology: Addressing New Technology*, 34 WAKE FOREST L. REV. 827, 833 (1999).

²²⁰ E.g., *Al-Site Corp. v. VSI Int'l, Inc.*, 174 F.3d 1308, 1323-24 (Fed. Cir. 1999).

²²¹ See Margo A. Bagley, *Internet Business Model Patents: Obvious by Analogy*, 7 MICH. TELECOMM. & TECH. L. REV. 253, 279-80 (2001); Mark A. Lemley & David W. O'Brien, *Encouraging Software Reuse*, 49 STAN. L. REV. 255, 301 (1997).

²²² *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 419 (2007).

²²³ *Id.* at 418.

²²⁴ *Cf.* *Wyers v. Master Lock Co.*, 616 F.3d 1231, 1239-40 (Fed. Cir. 2010) (emphasizing that the question of motivation to combine, a factual determination underpinning the obviousness analysis, can be appropriate for resolution on summary judgment, particularly when "the existence of a motivation to combine references . . . boil[s] down to a question of 'common sense'" under *KSR*).

anticipation and lack of enablement.²²⁵ Also, in 2005, the Federal Circuit held that short gene fragments with no currently known function do not satisfy the Patent Act's utility requirement.²²⁶ But utility, too, is a question of fact²²⁷ and is therefore not susceptible to early resolution.

Eligibility is different. Because courts treat it as a pure question of law,²²⁸ it can be used to invalidate patents before discovery begins, on a motion to dismiss or for judgment on the pleadings.²²⁹ Thus, the invigorated patent-eligibility requirement is, like Congress's expansion of post-issuance proceedings at the PTO, another route to quick decisions on patent validity.

To briefly summarize the recent developments in eligibility doctrine (which have been discussed in detail elsewhere²³⁰): In 2010, shortly after the Federal Circuit had begun to retreat from prior decisions embracing broad eligibility for business methods,²³¹ the Supreme Court invalidated a patent on a method of hedging financial risk for claiming "an unpatentable abstract idea."²³² Two years later, the Court invalidated as directed to a law of nature a patent on a method of administering a drug to a patient and then determining its metabolite levels in the body.²³³ The next year, the Court invalidated patents on isolated sequences of DNA because they occur in nature.²³⁴ Most recently, the Court struck down patents on computer software that used an intermediary to ensure parties performed a contract.²³⁵ In that case, *Alice Corp. v. CLS Bank International*, the Court reasoned that the idea of using intermediaries already existed in the analog

²²⁵ See *supra* note 121.

²²⁶ *In re Fisher*, 421 F.3d 1365, 1373 (Fed. Cir. 2005).

²²⁷ *U.S. Steel Corp. v. Phillips Petroleum Co.*, 865 F.2d 1247, 1252 n.8 (Fed. Cir. 1989).

²²⁸ *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1369 (Fed. Cir. 2011).

²²⁹ MARK A. LEMLEY ET AL., *INTELLECTUAL PROPERTY IN THE NEW TECHNOLOGICAL AGE III*-165 (2016). A defendant files a motion to dismiss in lieu of an answer, while a motion for judgment on the pleadings can be made after filing an answer. See 5C CHARLES ALAN WRIGHT ET AL., *FEDERAL PRACTICE AND PROCEDURE* § 1369 (3d ed. 2016).

²³⁰ See, e.g., Timothy R. Holbrook & Mark D. Janis, *Patent-Eligible Processes: An Audience Perspective*, 17 *VAND. J. ENT. & TECH. L.* 349, 356-58 (2015); Jacob S. Sherkow, *The Natural Complexity of Patent Eligibility*, 99 *IOWA L. REV.* 1137, 1151-52 (2014).

²³¹ See, e.g., *In re Comiskey*, 554 F.3d 967, 981 (Fed. Cir. 2009).

²³² *Bilski v. Kappos*, 561 U.S. 593, 611 (2010). The Federal Circuit in *Bilski* had actually found the invention to be ineligible for patenting, too. *In re Bilski*, 545 F.3d 943, 949 (Fed. Cir. 2008) (en banc).

²³³ *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1297 (2012).

²³⁴ *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2117 (2013).

²³⁵ *Alice Corp. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2357 (2014).

world and that the patent contained no “inventive concept” to transform that abstract idea into a “patent-eligible *application*” of the idea.²³⁶

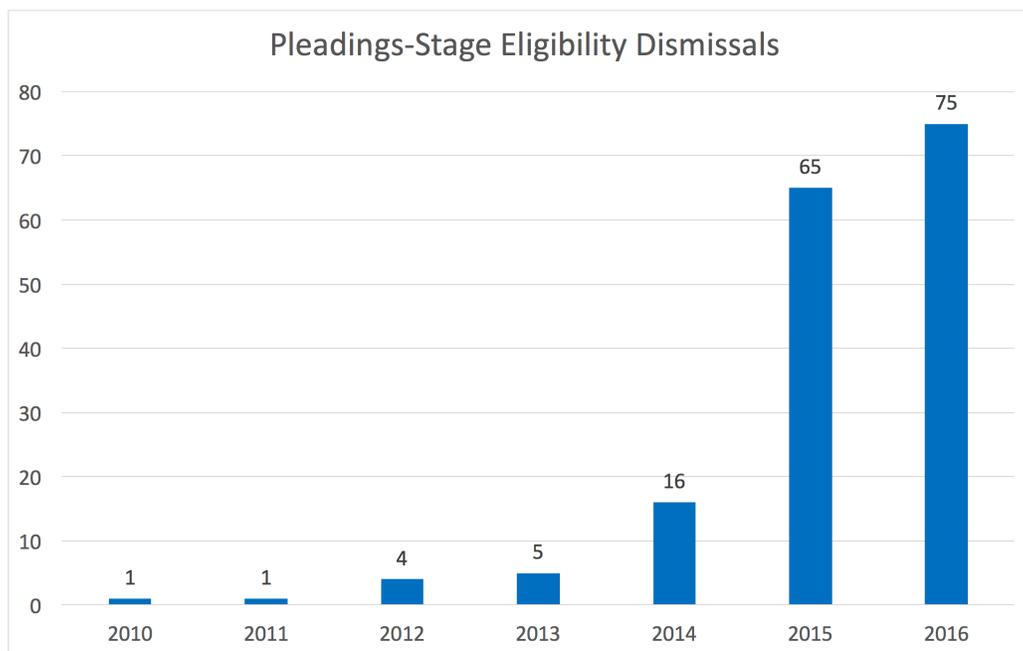
On the surface, these decisions reflect concern about the substance of patent law, specifically, that the Federal Circuit and the PTO had too readily permitted patents on basic concepts that are important to follow-on innovation—what the Supreme Court has often called “building blocks of human ingenuity.”²³⁷ The Court’s opinions have made passing reference, at most, to the aim of reducing enforcement costs,²³⁸ and have not discussed speed to decision at all. Yet the invigoration of the eligibility requirement results in cheaper and quicker resolution of infringement disputes by allowing validity to be resolved on the pleadings as a matter of law. As the chart below shows,²³⁹ the number of pleadings-stage dismissals on eligibility grounds has dramatically increased since the beginning of the Supreme Court’s recent string of decisions.

²³⁶ *Id.*

²³⁷ *E.g., id.* at 2354 (quoting *Mayo*, 132 S. Ct. at 1301).

²³⁸ *See Bilski v. Kappos*, 561 U.S. 593, 656 (2010) (Stevens, J., concurring in the judgment) (arguing for a prohibition on business method patents, noting that “even if a business method patent is ultimately held invalid, patentees may be able to use it to threaten litigation and to bully competitors, especially those that cannot bear the costs of a drawn-out, fact-intensive patent litigation”); *Lab. Corp. of Am. v. Metabolite Labs., Inc.*, 548 U.S. 124, 127 (2006) (Breyer, J., dissenting from the dismissal of certiorari) (noting that patents can sometimes “discourage research” by, among other things, “leading [researchers] to conduct costly and time-consuming searches of existing or pending patents” and “requiring complex licensing arrangements”).

²³⁹ The data covers all federal district courts nationwide and is drawn from Docket Navigator’s motion success tool, <http://home.docketnavigator.com>.



Many observers have viewed the Supreme Court’s invigoration of the eligibility requirement as problematic because, in their view, the requirement, which demands that patents contain an “inventive concept,” has no policy justification that is independent from the other requirements of patentability.²⁴⁰ As the Court has acknowledged, there will sometimes be “overlap” in analyzing whether a claim contains an inventive concept and whether it satisfies the novelty and nonobviousness requirements.²⁴¹ In addition, the Court’s concern about the availability of “building blocks” can be read as condemning claims that are overly broad²⁴²—highly similar to the animating policy of § 112’s enablement requirement, which requires the patent to disclose enough information to allow a person of ordinary skill in the art to recreate the invention without undue experimentation.²⁴³ The bar on patenting abstract ideas also looks similar to the specific utility requirement, which ensures that a patent “is not so vague as to be meaningless,”²⁴⁴ as well as § 112’s definiteness requirement, which ensures that

²⁴⁰ J. Jonas Anderson, *Applying Patent-Eligible Subject Matter Restrictions*, 17 VAND. J. ENT. & TECH. L. 267, 281 (2015).

²⁴¹ *Mayo*, 132 S. Ct. at 1304.

²⁴² Rebecca S. Eisenberg, *Wisdom of the Ages or Dead-Hand Control? Patentable Subject Matter for Diagnostic Methods After In re Bilski*, 3 CASE W. RES. J.L. TECH. & INTERNET 1, 58 (2012).

²⁴³ *Consol. Elec. Light Co. v. McKeesport Light Co.*, 159 U.S. 465, 475 (1895).

²⁴⁴ *In re Fisher*, 421 F.3d 1365, 1371 (Fed. Cir. 2005). The specific utility requirement can be contrasted with the *practical* utility requirement, which ensures “that an invention is useful to the public as disclosed in its current form, not that it may prove useful at some future date after further research.” *Id.* The utility requirements, like the eligibility requirement, stem from § 101 of the

the public has reasonably certain notice of the patent's boundaries,²⁴⁵ and its written description doctrine, which ensures that the patentee has described the invention with particularity.²⁴⁶

None of these requirements, however, are susceptible to quick resolution, for they all turn on questions of fact.²⁴⁷ Though fact questions can be resolved on summary judgment, summary judgment, in discovery-intensive patent cases, is much more expensive than a motion to dismiss. Thus, one arguably coherent policy justification for the eligibility requirement is that it provides a means for *quickly and cheaply* wiping out patents that are so likely to be invalidated under other requirements of patentability that discovery is not warranted.²⁴⁸

The litigation cost savings that flow from early resolution of validity via the eligibility requirement may, however, come at the price of decreased accuracy. Specifically, because courts can resolve eligibility on the pleadings without fact-finding, they may be invalidating meritorious inventions. The paradigmatic example in the view of many commentators²⁴⁹ is the Federal Circuit's 2015 decision in *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*²⁵⁰ In that case, the Federal Circuit invalidated a patent on methods of detecting fetal DNA that floats freely in the mother's body.²⁵¹ The discovery of this cell-free fetal DNA (cffDNA) was an important breakthrough. Previously, fetal genetic testing could be conducted

Patent Act, which permits patents on "new and *useful* processes, machines," and so on. 35 U.S.C. § 101 (emphasis added).

²⁴⁵ *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2129 (2014); *see also* 35 U.S.C. § 112(b) (requiring the patent to contain "one or more claims particularly pointing out and distinctly claiming" the invention).

²⁴⁶ *Fiers v. Revel*, 984 F.2d 1164, 1169 (Fed. Cir. 1993).

²⁴⁷ *See supra* notes 116-125; *see also* *Ariad Pharm., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1355 (Fed. Cir. 2010) (en banc) (stating that written description is a question of fact).

²⁴⁸ In contrast to this theoretical justification grounded in considerations of timing and enforcement costs, the other scholars who have attempted to justify eligibility's redundancy of other patentability requirements have done so on substantive grounds. John Golden, for example, has argued that redundancy could prevent patent drafters from exploiting gaps left by other, compartmentalized doctrines of patentability. John M. Golden, *Redundancy: When Law Repeats Itself*, 94 TEX. L. REV. 629, 710-11 (2016). Similarly, Kevin Collins has argued that eligibility can limit the scope of patent protection in technologies where other validity doctrines impose minimal restrictions. Kevin Emerson Collins, *Patent-Ineligibility as Counteraction*, 94 WASH. U. L. REV. (forthcoming 2017) (manuscript at 54) (on file with author) (providing the example of medical diagnostics, which, in his view, inherently involve newly created knowledge that satisfies the novelty and nonobviousness requirements).

²⁴⁹ *See, e.g.*, Dmitry Karshedt, *Photocopies, Patents, and Knowledge Transfer: "The Uneasy Case" of Justice Breyer's Patentable Subject Matter Jurisprudence*, 69 VAND. L. REV. 1739, 1770-71 (2016).

²⁵⁰ 788 F.3d 1371 (Fed. Cir. 2015).

²⁵¹ *Id.* at 1373.

only by extracting a sample directly from the fetus—an expensive and risky procedure.²⁵² Yet the Federal Circuit invalidated Sequenom’s patent because cffDNA occurs naturally and the techniques for detecting and amplifying it were well known at the time of the invention.²⁵³

Related to concerns about the invalidation of meritorious inventions is the claim that the Supreme Court’s test for eligibility, which turns on the existence of “abstract ideas,” “natural laws,” and “inventive concepts,” is so amorphous that lower courts’ application of the doctrine is confused and unpredictable.²⁵⁴ Indeed, one district judge deciding a patent eligibility issue recently invoked Justice Stewart’s famous aphorism for identifying obscenity, “I know it when I see it.”²⁵⁵

These critiques of eligibility doctrine have merit. It is plausible that overzealous invalidations are deterring innovation in areas such as medical diagnostics.²⁵⁶ And I have no doubt that any decent patent lawyer (or law professor) can look at any two eligibility decisions and argue that they are inconsistent. For instance, in *Rapid Litigation Management Ltd. v. CellzDirect, Inc.*, a case decided mere days after the Supreme Court denied certiorari in *Ariosa*, the Federal Circuit upheld the eligibility of a patent on a method of preserving hepatocytes (a type of liver cell).²⁵⁷ The court distinguished *Ariosa* on the ground that the patent in *Ariosa* claimed a method of “identifying” cffDNA, which, in the court’s view, amounted to “merely claiming the natural phenomenon itself.”²⁵⁸ Yet the patent in *CellzDirect* turned on the discovery that hepatocytes could survive multiple freeze-thaw cycles—a natural trait of the

²⁵² Rachel Rebouché, *Testing Sex*, 49 U. RICH. L. REV. 519, 527 (2015).

²⁵³ *Ariosa*, 788 F.3d at 1376-77. It should be noted that *Ariosa* was resolved on summary judgment, not the pleadings. But the complaint in that case was filed in 2011—before the Supreme Court’s decision in *Mayo*, which suggested that many medical diagnostics were not patent eligible. Complaint 6, *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, No. 3:11-cv-6391 (N.D. Cal. Dec. 19, 2011). Perhaps for that reason, *Ariosa*’s original declaratory judgment complaint sought only a ruling of noninfringement, not invalidity. *See id.*

²⁵⁴ E.g., Christopher M. Holman, *Patent Eligibility Post-Myriad: A Reinvigorated Judicial Wildcard of Uncertain Effect*, 82 GEO. WASH. L. REV. 1796, 1798 (2014); David O. Taylor, *Confusing Patent Eligibility*, 83 TENN. L. REV. (forthcoming 2017) (manuscript at 3), available at <http://ssrn.com/abstract=2754323>.

²⁵⁵ *Eclipse IP LLC v. McKinley Equip. Corp.*, No. CV 14-154, 2014 WL 4407592, at *3 (C.D. Cal. Sept. 4, 2014) (Wu, J.) (quoting *Jacobellis v. Ohio*, 378 U.S. 184, 197 (1964) (Stewart, J., concurring)).

²⁵⁶ Rebecca S. Eisenberg, *Diagnostics Need Not Apply*, 21 B.U. J. SCI. & TECH. L. 256, 256-57 (2015).

²⁵⁷ 827 F.3d 1042, 1045 (Fed. Cir. 2016).

²⁵⁸ *Id.* at 1048.

cells.²⁵⁹ Thus, one could argue that that patent in *CellzDirect*, just like the patent in *Ariosa*, merely claimed a natural law.

Though critiques of eligibility doctrine have merit, so too do the claims that the PTO has issued large numbers of poor quality patents over the past decade and that litigants have exploited those patents to obtain unwarranted license payments. Eligibility doctrine, though it may not be perfect, fills an important *procedural* gap by providing a mechanism to quickly and cheaply invalidate those patents. Thus, rather than abolishing the eligibility requirement, as some have suggested,²⁶⁰ or requiring courts to avoid deciding eligibility issues until they have resolved all other grounds of patentability, as others have proposed,²⁶¹ we might consider ways to increase the accuracy of eligibility rulings while preserving courts' discretion to invoke this cost-saving mechanism in appropriate cases.

One arguable problem with current eligibility law is its form. Because it is essentially a common law doctrine, it is very much a fuzzy standard, not a clear rule. When an issue arises frequently, as eligibility does these days, a standard may not be the optimal form of law, for standards are more costly to enforce than rules and less predictable in application.²⁶² John Golden has argued that this uncertainty is exacerbated in patent law, where the ambiguous standard of eligibility has been piled atop the amorphous standard of nonobviousness.²⁶³ If the law of eligibility were made more rule-like, patentability would be resolved through a series of successive tests that are each more costly and fact-intensive than the one before it.²⁶⁴ Clear, categorical exclusions from patentability could be easily resolved on the pleadings. More fact-intensive validity doctrines, such as

²⁵⁹ *Id.* at 1045.

²⁶⁰ See *supra* note 17.

²⁶¹ See, e.g., *MySpace, Inc. v. GraphOn Corp.*, 672 F.3d 1250, 1261 (Fed. Cir. 2012) (Plager, J.); Dennis Crouch & Robert P. Merges, *Operating Efficiently Post-Bilski by Ordering Patent Doctrine Decisionmaking*, 25 BERKELEY TECH. L. J. 1673, 1678 (2010). *But cf.* *Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1324 (Fed. Cir. 2016) (Mayer, J., concurring) (arguing that “section 101 imposes a threshold test, one that must be satisfied before a court can proceed to consider subordinate validity issues such as non-obviousness . . . or adequate written description”) (internal quotation marks and citations omitted).

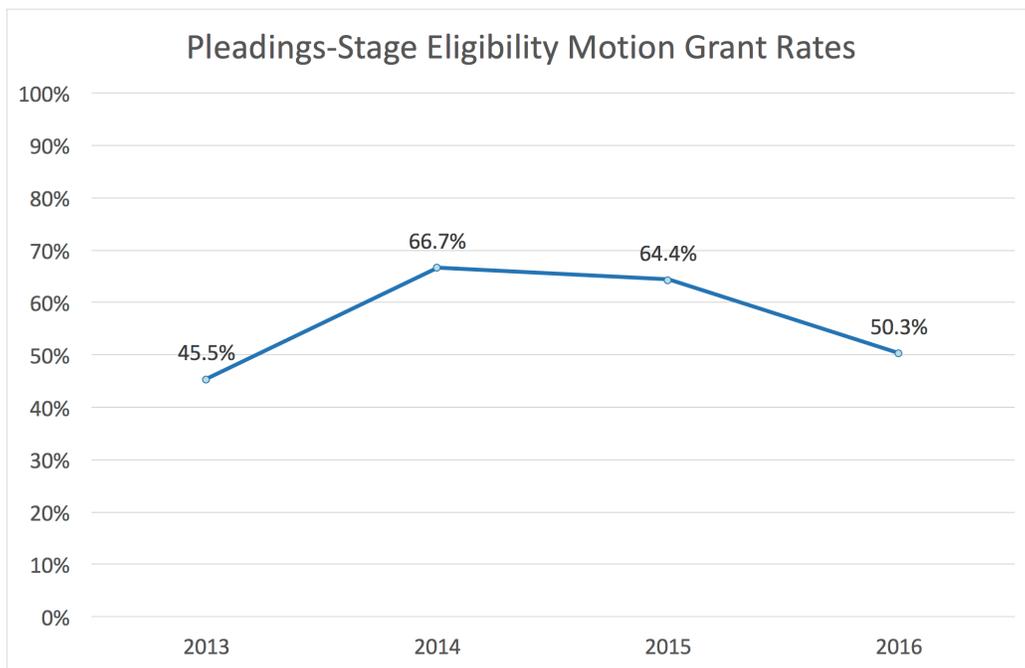
²⁶² See Louis Kaplow, *Rules Versus Standards: An Economic Analysis*, 42 DUKE L.J. 557, 577 (1992). This difficulty may be particularly acute in the examination process. See Greg Reilly, *Decoupling Patent Law*, 97 B.U. L. REV. (forthcoming 2017) (manuscript at 47), available at <https://ssrn.com/abstract=2854375> (“[T]he Supreme Court identifies an ‘abstract idea’ largely by analogizing (and distinguishing) prior precedent. This is feasible for judges, who are trained and experienced at common law reasoning, but . . . both foreign to, and difficult for, non-lawyer patent examiners.”).

²⁶³ Golden, *supra* note 248, at 701-02.

²⁶⁴ For a similar proposal to reform trademark fair use doctrine, see McGeeveran, *supra* note 42, at 2299.

nonobviousness and the disclosure doctrines, could then remain in their current, standard-like form and be resolved on summary judgment or at trial.

Making eligibility law more predictable in application would also help mitigate the possibility that the Supreme Court has incentivized *too many* pleadings-stage eligibility motions. If many of those motions have little merit, the invigorated eligibility requirement could, as a systemic matter, be creating more litigation without providing earlier or cheaper resolution. Indeed, though the number of pleadings-stage dismissals on eligibility grounds has increased in recent years, the percentage of motions that have been granted (in whole or in part) has begun to fall, as illustrated on the chart below.²⁶⁵



To enhance predictability and help deter the filing of eligibility motions with little likelihood of success, one might suggest that Congress should legislate clear, discrete exclusions from eligibility.²⁶⁶ But it seems unwise to look to Congress for change. For starters, legislation is politically unlikely given the differing perspectives of companies in the information technology industry, who have

²⁶⁵ Again, this data is drawn from Docket Navigator's motion success tool. *See supra* note 239.

²⁶⁶ *See* David O. Taylor, *Amending Patent Eligibility*, 50 U.C. DAVIS L. REV. (forthcoming 2017) (manuscript at 47-48), available at <https://ssrn.com/abstract=2853700>; Ryan Davis, *IP, Pharma Groups Call for Patent Eligibility Law Overhaul*, LAW360 (Jan. 30, 2017), <https://www.law360.com/articles/884771/ip-pharma-groups-call-for-patent-eligibility-law-overhaul>.

benefitted from recent restrictions on the patent eligibility of software, and companies in the pharmaceutical and biotechnology industries, who favor broad eligibility for diagnostics and therapeutics. For another, Congress's prior efforts to solve discrete substantive problems in patent law through legislation have failed spectacularly.²⁶⁷

Moreover, it is not unusual for essentially common law doctrines, such as patent eligibility, to crystallize into rules as time passes.²⁶⁸ Recent decisions by the Federal Circuit provide reason to be optimistic that the law of eligibility is on its way to assuming a more a rule-like form that is more predictable in application. This seems particularly likely in the software arena. In contrast to the four Supreme Court decisions invalidating patents as ineligible, the Federal Circuit has issued several opinions upholding software patents against eligibility challenges. In short, the Federal Circuit's case law confirms what the Supreme Court suggested in *Alice*: traditional business techniques implemented on a generic computer are ineligible for patenting.²⁶⁹ But software-related inventions *are* patent eligible if they improve the function of a computer,²⁷⁰ solve a problem unique to the Internet,²⁷¹ or implement an arguably abstract idea in a very specific way.²⁷² Though not every Federal Circuit eligibility decision is amenable to easy

²⁶⁷ See BURK & LEMLEY, *supra* note 215, at 98-99 (discussing, among other examples, the “notoriously neglected Semiconductor Chip Protection Act” and a biotechnology-specific amendment to the nonobviousness statute, which “became irrelevant nearly as soon as it was enacted” and “has apparently never been litigated”).

²⁶⁸ See McGeveran, *supra* note 42, at 2288; see also Keith N. Hylton, *Patent Uncertainty: Toward a Framework with Applications*, 96 B.U. L. REV. 1117, 1148 (2016) (noting that the “inherent uncertainty” stemming from the Supreme Court’s recent eligibility decisions “does not need to be a focus of [law] reform, because the common law process is necessarily uncertain at an early stage of analysis of a particular class of legal claims”).

²⁶⁹ See, e.g., OIP Techs., Inc. v. Amazon.com, Inc., 788 F.3d 1359, 1363 (Fed. Cir. 2015) (invalidating a patent describing “the automation of the fundamental economic concept of offer-based price optimization through the use of generic-computer functions”).

²⁷⁰ Enfish, LLC v. Microsoft Corp., 822 F.3d 1327, 1339 (Fed. Cir. 2016) (upholding the eligibility of a patent on a “self-referential table for a computer database,” noting that it is “a specific type of data structure designed to improve the way a computer stores and retrieves data in memory”).

²⁷¹ DDR Holdings, LLC v. Hotels.com, L.P., 773 F.3d 1245, 1257 (Fed. Cir. 2014) (upholding the eligibility of a patent on an invention that addressed the problem of retaining website visitors upon the click of an advertising link, noting that “the claimed solution is necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks”).

²⁷² Bascom Glob. Internet Servs., Inc. v. AT&T Mobility LLC, 827 F.3d 1341, 1350 (Fed. Cir. 2016) (upholding the eligibility of a patent on filtering Internet content where the patent required the filter to be located on a remote server and required the filter to allow customization by users); see also McRO, Inc. v. Bandai Namco Games Am Inc., 837 F.3d 1299, 1315 (Fed. Cir. 2016) (finding not to be an abstract idea claims on a process for synchronizing animation with sound, noting that the process “uses a combined order of specific rules that renders information into a specific format”).

characterization,²⁷³ some observers have synthesized this case law into a “technological arts” test, concluding that “advances in non-technological disciplines—such as business, law, or the social sciences” are not patent eligible.²⁷⁴ On the other hand, patents covering technological improvements in computer hardware or software—particularly those that improve the functioning of the computer or that solve a problem unique to the realm of computers or the Internet—are patent eligible.²⁷⁵

Fortunately, patents almost always explicitly state the improvement they provide over the prior art, so a technological arts test is susceptible to resolution at the motion to dismiss stage.²⁷⁶ That said, the process of resolving patent eligibility could be improved in various ways that would enhance accuracy without sacrificing the cost savings that invalidation on the pleadings can provide.²⁷⁷ Most fundamentally, courts should reconsider whether the “inventive concept” inquiry, which requires the court to compare the patent to the prior art, truly presents a question of law. Acknowledging that the eligibility inquiry has factual components would deter courts from simply looking at the patent and rendering a yes/no decision on its inventiveness, as the current practice seems to be. Characterizing eligibility as, say, a mixed question of law and fact would nudge courts to view eligibility through the prism of *Twombly* and *Iqbal*, which would limit dismissals to cases in which there is no plausible argument that the patent contains an inventive concept. Applying *Twombly* and *Iqbal* would also

²⁷³ The court, for instance, recently held patent eligible some rather vague claims to a computer program for processing network usage information, relying heavily on the specification to find non-generic aspects of the invention. *Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1299-1307 (Fed. Cir. 2016). This reliance on the specification prompted a vigorous dissent from Judge Reyna, who asserted that the majority’s holding “contravenes the fundamental [principle] that the section 101 inquiry is about whether the claims are directed to a patent-eligible invention, not whether the specification is so directed.” *Id.* at 1307 (Reyna, J., dissenting).

²⁷⁴ *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 721 (Fed. Cir. 2014) (Mayer, J., concurring) (“A rule holding that claims are impermissibly abstract if they are directed to an entrepreneurial objective, such as methods for increasing revenue, minimizing economic risk, or structuring commercial transactions, rather than a technological one, would comport with the guidance provided in both *Alice* and *Bilski*.”); Joshua L. Sohn, *A Defense of the Current Jurisprudence on Section 101*, LAW 360 (Oct. 7, 2016), <http://www.law360.com/articles/846930/a-defense-of-the-current-jurisprudence-on-section-101> (“[T]he Federal Circuit has consistently invalidated patent claims that simply apply economic, business, or human-interaction practices on a computer without improving the computer itself or any other technological art.”).

²⁷⁵ See Matt Levy, *Software Patents Will Survive: How Section 101 Law is Settling Down*, IPWATCHDOG (Nov. 30, 2016), <http://www.ipwatchdog.com/2016/11/30/software-patents-will-survive/id=75101> (noting that a claim is patent eligible under recent Federal Circuit case law if it is “a technical improvement to a technical problem”).

²⁷⁶ Sohn, *supra* note 274.

²⁷⁷ I explore all of these possibilities in more detail in my forthcoming article on the procedure of patent eligibility. See *supra* note 43.

push courts to consider more fully the role of claim construction in the eligibility analysis. Dismissal on the pleadings would be appropriate only if there is no plausible claim construction under which the patent would satisfy the eligibility test.

In the end, skeptics of eligibility doctrine may still view the Supreme Court's recent decisions as misguided, incoherent, and threatening incentives for innovation. Others might point out that the new administrative proceedings created by the AIA largely address the concerns about the weak patents targeted by eligibility doctrine.²⁷⁸ I cannot hope to respond to all of those critiques in this space. Rather, my aim has been to add to the vigorous and on-going debate over patent eligibility by highlighting an important but underappreciated benefit of the doctrine: unlike any other requirement of patentability, it provides a mechanism to dismiss low-merit suits before the parties incur significant litigation costs.

3. *Pleading Standards*.—Another recent change in the law that has the potential to facilitate pre-discovery decisions in patent cases occurred when the Supreme Court deleted a form complaint for patent infringement from the Federal Rules of Civil Procedure. As the Federal Circuit had explained, that form, Form 18, required a complaint for direct infringement to contain merely an allegation of jurisdiction; a demand for relief; and statements that the plaintiff owned the patent, the defendant had been infringing the patent, and the plaintiff had given the defendant notice of its infringement.²⁷⁹ Thus, a patentee could avoid dismissal for failure to state a claim without providing anything more than a generic description of the allegedly infringing product or process.²⁸⁰ When the Supreme Court deleted Form 18 from the Federal Rules, it also deleted Rule 84, which stated that use of an appropriate form satisfied the requirements of the rules.²⁸¹

²⁷⁸ LEMLEY ET AL., *supra* note 229, at III-166.

²⁷⁹ *In re Bill of Lading Transmission & Processing Sys. Patent Litig.*, 681 F.3d 1323, 1334 (Fed. Cir. 2012). There was no form complaint for claims of indirect infringement (that is, claims of induced or contributory infringement), so the amendments to the Federal Rules do not change the pleading standards in those cases. *See id.* at 1336-37.

²⁸⁰ *See* *McZeal v. Sprint Nextel Corp.*, 501 F.3d 1354, 1357-58 (Fed. Cir. 2007); *see also* *K-Tech. Telecomm., Inc. v. Time Warner Cable, Inc.*, 714 F.3d 1277, 1286 (Fed. Cir. 2013) (“We do not read Form 18 . . . to require that a plaintiff identify an accused device by name.”). Form 18’s model allegation of infringement stated in relevant part: “The defendant has infringed and is still infringing the Letters Patent by making, selling, and using *electric motors* that embody the patented invention” (Emphasis added.)

²⁸¹ Proposed Amendments to the Federal Rules of Civil Procedure (Apr. 29, 2016), [http://www.supremecourt.gov/orders/courtorders/frcv15\(update\)_1823.pdf](http://www.supremecourt.gov/orders/courtorders/frcv15(update)_1823.pdf).

The administrative body charged with updating the rules singled out Form 18 as particularly “inadequate” for modern litigation.²⁸²

Consequently, complaints for direct patent infringement are now, or at least should be, governed by the plausibility standard articulated in *Twombly* and *Iqbal*. That standard would seemingly require patent owners to include in their complaint factual allegations that would allow a court to make a plausible inference of infringement. Much like the invigorated eligibility requirement allows courts to dismiss on the pleadings cases in which the patent is plainly invalid, the new pleading standard allows courts to dismiss cases in which the defendant plainly does not infringe. For example, in a recent case involving a patent on a combination of an RV with a particular seal on its slide-out room, the court dismissed an infringement claim, with prejudice, because the plaintiff alleged only that the defendant sold one of those elements—an infringing seal.²⁸³

Though the new pleading standard facilitates quick decisions where the allegations of infringement are plainly insufficient, in closer cases it has caused district courts to adopt widely varying pleading requirements.²⁸⁴ In contrast to Form 18, many courts now require the complaint to contain allegations linking the patent’s claims to the infringing features of the accused product or process.²⁸⁵ Under that view, merely identifying the patent and generally describing the accused product or process is insufficient.²⁸⁶ But these courts have not been consistent about the level of detail required. Some have required “factual allegations that . . . permit [the] court to infer that the accused product infringes each element of at least one claim.”²⁸⁷ Other courts have been even more demanding, requiring information about how the defendant infringes *each asserted claim*.²⁸⁸

²⁸² COMM. ON RULES OF PRACTICE AND PROCEDURE OF THE JUDICIAL CONFERENCE OF THE U.S., PRELIMINARY DRAFT OF PROPOSED AMENDMENTS TO THE FEDERAL RULES OF BANKRUPTCY AND CIVIL PROCEDURE 276 (2013).

²⁸³ *Lifetime Indus., Inc. v. Trim-Lok, Inc.*, No. 3:13-cv-819, slip op. at 9 (N.D. Ind. Sept. 30, 2016).

²⁸⁴ *See e.Digital Corp. v. iBaby Labs, Inc.*, No. 15-cv-5790, slip op. at 3-4 (N.D. Cal. Aug. 22, 2016) (noting split of authority).

²⁸⁵ *See, e.g., Atlas IP LLC v. Pac. Gas & Elec. Co.*, No. 15-CV-5469, 2016 WL 1719545, at *2 (N.D. Cal. Mar. 9, 2016).

²⁸⁶ *See, e.g., Global Tech LED, LLC v. Every Watt Matters, LLC*, No. 15-cv-61933, slip op. at 6-7 (S.D. Fla. May 18, 2016).

²⁸⁷ *E.g., Atlas IP, LLC v. Exelon Corp.*, 189 F. Supp. 3d 768, 775 (N.D. Ill. 2016).

²⁸⁸ *E.g., Asghari-Kamrani v. United Servs. Auto. Ass’n*, No. 2:15CV478, 2016 WL 1253533, at *4 (E.D. Va. Mar. 22, 2016).

At the other extreme, some courts have absolved plaintiffs from identifying the claims of the patent they are asserting.²⁸⁹ Many judges—including Judge Rodney Gilstrap of the Eastern District of Texas, who hears more patent cases than any other judge in the United States—have emphasized that early deadlines in local procedural rules for disclosing infringement contentions mitigate any prejudice to a defendant faced with a vague complaint for infringement.²⁹⁰ And one court has held that compliance with Form 18 remains sufficient in part because of a somewhat perplexing advisory committee note stating that the abrogation of Rule 84 and the deletion of the forms “does not alter existing pleading standards.”²⁹¹

Thus, though the deletion of Form 18 would appear to facilitate quick decisions of noninfringement, it actually may have encouraged additional litigation over the substance of the pleading standard and whether the plaintiff in a particular case has satisfied it. Even in the courts that have imposed a more onerous standard, most dismissals have been without prejudice, meaning that the patent owner will be able to file an amended complaint. Cases dismissing infringement complaints with prejudice remain the exception, not the rule.²⁹²

Thus, it is quite possible that the deletion of Form 18 has actually increased process costs—by incentivizing defendants to file motions they would not have previously filed and by requiring plaintiffs to engage in additional fact gathering

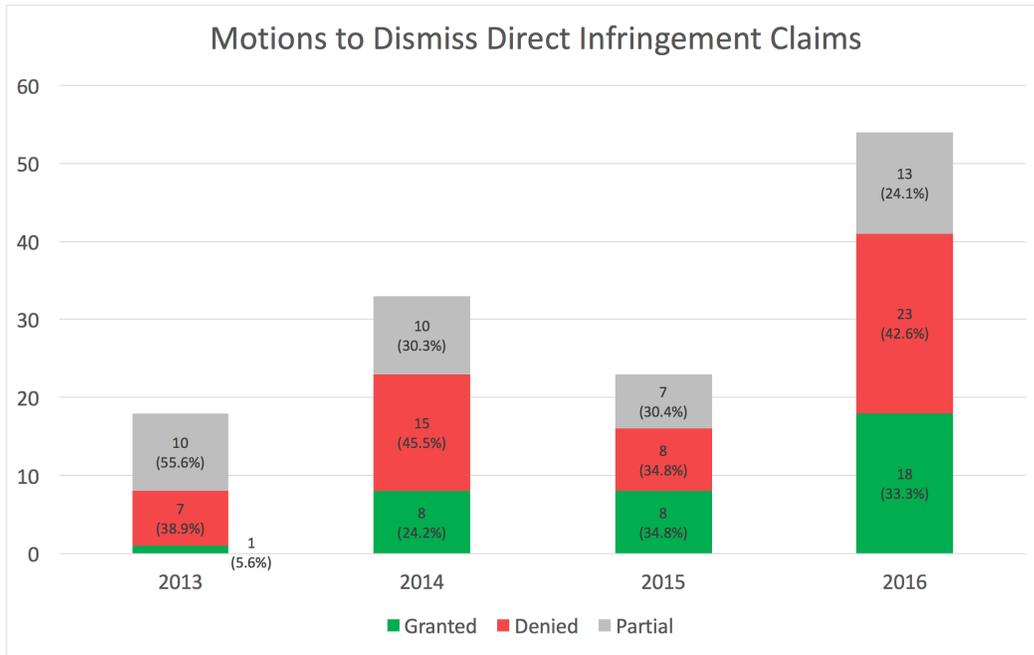
²⁸⁹ *E.g.*, *Iron Gate Sec., Inc. v. Lowe’s Cos.*, No. 15-CV-8814, 2016 WL 1070853, at *3 (S.D.N.Y. Mar. 16, 2016).

²⁹⁰ *See Solocron Educ., LLC v. Healthstream, Inc.*, No. 16-cv-16, slip op. at 6 (E.D. Tex. June 7, 2016) (Gilstrap, J.); *accord Avago Techs. Gen. IP (Singapore) PTE Ltd. v. Asustek Computer, Inc.*, No. 15-CV-04525, 2016 WL 1623920, at *4 (N.D. Cal. Apr. 25, 2016). Several district courts have flatly disagreed with this position. *E.g.*, *CG Tech. Dev., LLC v. FanDuel, Inc.*, No. 2:16-cv-801, slip op. at 5 (D. Nev. Jan. 4, 2017) (“The requirement of providing infringement contentions element-by-element under the Local Rules does not permit a more flexible application of Civil Rule 8(a) at the dismissal stage . . .”).

²⁹¹ *Hologram USA, Inc. v. Pulse Evolution Corp.*, No. 2:14-CV-0772, 2016 WL 199417, at *2 n.1 (D. Nev. Jan. 15, 2016). For a scholarly argument that the deletion of the forms “cannot fairly be read as an invitation to make pleading standards more restrictive,” see Adam M. Steinman, *The End of an Era? Federal Civil Procedure After the 2015 Amendments*, 66 EMORY L.J. 1, 41 (2016).

²⁹² In a thorough search, I have been able to locate six decisions in 2016 in which a court dismissed claims with prejudice for insufficiently alleging direct infringement. *See Lifetime Indus., Inc. v. Trim-Lok, Inc.*, No. 3:13-cv-819, slip op. at 9 (N.D. Ind. Sept. 30, 2016); *Howard v. Ford Motor Co.*, No. 1:16CV127, slip op. at 10 (S.D. Miss. July 29, 2016); *Nu-You Techs., LLC v. Beauty Town Int’l Inc.*, No. 3:15-CV-3433, slip op. at 4 (N.D. Tex. July 7, 2016); *Ruby Sands LLC v. Am. Nat’l Bank*, No. 2:15-cv-1955, slip op. at 9 (E.D. Tex. June 28, 2016); *Atlas IP*, 189 F. Supp. 3d at 779; *Nalco Co. v. Chem-Mod, LLC*, No. 14-cv-2510, slip op. at 9 (N.D. Ill. Apr. 20, 2016). In a few additional cases, the dismissal was not explicitly with prejudice, but the case concluded shortly after the dismissal. *See, e.g.*, *Disc Disease Solutions, Inc. v. VGH Solutions, Inc.*, No. 15-cv-188 (M.D. Ga. Nov. 2, 2016).

and pleading—without concluding cases any more quickly or accurately.²⁹³ As the chart below illustrates, the number of district court decisions on motions to dismiss direct infringement claims ticked up significantly in 2016, the first full year without Form 18, but grant rates slightly declined.



The deletion of Form 18 could, however, still be leveraged to reduce enforcement costs. An important first step would be for the Federal Circuit to provide clarity on what, precisely, plaintiffs must include in their complaints. Under *Twombly* and *Iqbal*, a patentee must plead facts that would plausibly establish a claim under the relevant substantive law. To prove a claim of direct patent infringement, a patentee must demonstrate the presence of each element of the patent claim, or each element's equivalent, in the accused product or process.²⁹⁴ As a purely doctrinal matter, then, it would seem that a complaint for patent infringement should, at minimum, identify the patent claims being asserted,

²⁹³ Indeed, many empirical studies of *Twombly* and *Iqbal* have found no statistically significant change in the proportion of cases granting motions to dismiss with prejudice. See William H.J. Hubbard, *The Empirical Effects of Twombly and Iqbal* 6 (Coase-Sandor Inst. for Law & Econ. Working Paper No. 774, Aug. 2016), available at <https://ssrn.com/abstract=2820300> (collecting studies).

²⁹⁴ *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1301 (Fed. Cir. 2011).

identify the accused product or process, and provide a description of how the accused product or process meets the patent's claim limitations.²⁹⁵

This may seem like too much detail to demand in a pleading. Civil procedure scholars have criticized *Twombly* and particularly *Iqbal* for precisely that reason.²⁹⁶ Bob Bone, for example, praised *Twombly* to the extent that it embraced a “thin screening model” for weeding out truly frivolous suits,²⁹⁷ but criticized *Iqbal* and its “thick screening model” for targeting suits that are weak but not meritless.²⁹⁸ Yet thicker screening may be what contemporary patent law needs. As discussed, two important factors in determining the point at which a case should be finally adjudicated are the cost of continuing to the next stage of litigation and the risk of error. In patent cases, discovery, the stage that follows pleading, is notoriously costly. And the risk that a meritorious claim for infringement will be dismissed seems low. Because dismissal on the pleadings is usually without prejudice, the patentee will receive multiple opportunities to adequately allege infringement. Patentees who cannot do so after multiple tries would seem to be those with the least meritorious claims in the first place. Thus, whatever its merits elsewhere, the pleading-stage screening of weak claims under *Twombly* and *Iqbal* could be defensible in patent cases.²⁹⁹

To be sure, over the long term, if courts granted motions to dismiss too enthusiastically, one might be concerned about weakened patent rights harming ex ante innovation incentives. Thus, it is important to recognize the discretion *Twombly* and *Iqbal* give to district judges in reviewing the sufficiency of complaints.³⁰⁰ This discretion would allow district courts to tailor pleading standards to the unique dynamics of infringement disputes in different industries. For example, it may be appropriate for courts to demand less detail in complaints in biotechnology cases, where patent infringement often occurs in research or

²⁹⁵ For a more general exploration of how, after *Twombly* and *Iqbal*, the specificity required in a complaint may turn on “the substantive contours of the plaintiff’s claim,” see Adam N. Steinman, *The Rise and Fall of Plausibility Pleading*, 69 VAND. L. REV. 333, 383 (2016).

²⁹⁶ David Freeman Engstrom, *The Twiqbal Puzzle and Empirical Study of Civil Procedure*, 65 STAN. L. REV. 1203, 1204 n.6 (2013) (collecting commentary).

²⁹⁷ Robert G. Bone, *Twombly, Pleading Rules, and the Regulation of Court Access*, 94 IOWA L. REV. 873, 909 (2009).

²⁹⁸ Robert G. Bone, *Plausibility Pleading Revisited and Revised: A Comment on Ashcroft v. Iqbal*, 85 NOTRE DAME L. REV. 849, 851 (2010).

²⁹⁹ This does not, however, support proposals for *heightened* pleading standards, which have been percolating in Congress in recent years. See Gugliuzza, *supra* note 22, at 284 (describing recent bills that would require the patentee to state in the complaint “with detailed specificity” how the terms of each asserted patent claim correspond to the accused product or process).

³⁰⁰ See, e.g., *Ashcroft v. Iqbal*, 556 U.S. 662, 679 (2009) (“Determining whether a complaint states a plausible claim for relief will . . . be a context-specific task that requires the reviewing court to draw on its judicial experience and common sense.”).

production facilities to which a patentee does not have access. By contrast, more detailed pleadings may be called for when dealing with multi-component electronics, where a manufacturer accused of infringement will want to know exactly which aspect of its product is alleged to infringe so that, among other things, it can immediately involve the correct supplier in the litigation and perhaps seek to have that supplier take responsibility for the case. Moreover, courts could use their discretion to order limited, pleadings-stage discovery where particular information about the accused product or process is potentially case dispositive but exclusively in the defendant's possession.³⁰¹ And although *Twombly* and *Iqbal* have been criticized for allowing judges to make ad hoc judgment calls about the merits of legal claims,³⁰² it seems less likely that judicial discretion will lead to arbitrary variations across district courts in patent cases because a mere eight district judges hear a remarkable sixty-four percent of patent cases filed nationwide.³⁰³

Unlike AIA proceedings and the invigorated eligibility requirement, which have indisputably facilitated quick decisions, the deletion of Form 18 seems to present merely the potential for quick decisions. It may, in fact, have thus far had the paradoxical effect of increasing litigation costs and slowing cases down. The deletion of that form, however, could certainly be leveraged to render quicker—but still accurate—decisions in cases in which the patent owner's claim of infringement is facially implausible.

B. Other Types of Quick Decisions

To this point, I have focused on changes in the law that allow patent suits to be resolved before discovery begins, for that is the point at which costs begin to quickly escalate. But several other recent developments in patent law also allow patent cases to be resolved earlier in the dispute process, even if they do not enable the parties to avoid discovery altogether.

³⁰¹ See Suzette M. Malveaux, *Front Loading and Heavy Lifting: How Pre-Dismissal Discovery Can Address the Detriemental Effect of Iqbal on Civil Rights Cases*, 14 LEWIS & CLARK L. REV. 65, 69 (2010). Early, limited discovery could also be useful in facilitating quick decisions on validity. Specifically, it could address objections about courts deciding the “inventive concept” prong of the eligibility requirement on the pleadings alone, and it could also facilitate earlier summary judgment motions on validity issues that, under current law, turn on questions of fact, such as nonobviousness. I explore the potential utility of pleading-stage discovery in more detail in my companion paper about the processes through which courts decide the question of patent eligibility. See *supra* note 43

³⁰² See, e.g., Alex Reinert, *Pleading as Information-Forcing*, 75 LAW & CONTEMP. PROBS. 1, 35 (2012).

³⁰³ DOCKET NAVIGATOR, YEAR IN REVIEW 23 (2015), available at <http://home.docketnavigator.com/year-review>. That said, as with any discretionary doctrine, judges could adopt lenient pleading standards to attract cases to their courts. See *infra* notes 368-369 (citing literature on “forum selling” in patent cases).

1. *Claim Construction.*—Though it is now two decades old, the Supreme Court’s seminal decision in *Markman v. Westview Instruments, Inc.* facilitates quicker decisions by mandating that the judge, not the jury, interpret the claims of the patent.³⁰⁴ A jury could not issue its view of the meaning of the patent’s claims until after trial, but judges can—and usually do—decide claim construction before trial, typically during or at the close of discovery. Judicial claim construction often leads directly to summary judgment, particularly on the issue of infringement because there is no dispute about the nature of the accused infringer’s product or process.³⁰⁵ Of course, *Markman* also requires the parties to devote substantial resources to the process of claim construction before or concurrent with summary judgment, meaning that, though *Markman* facilitates earlier resolution, it does not indisputably save process costs—it may simply shift litigation over claim meaning to an earlier stage of the case.³⁰⁶

But even today *Markman* continues to open new avenues of quick resolution. For instance, in a 2014 decision, *Nautilus, Inc. v. Biosig Instruments, Inc.*, the Supreme Court reversed the Federal Circuit’s stringent test for showing that a patent is invalid as indefinite.³⁰⁷ Indefiniteness is a matter of claim construction, so *Nautilus*, coupled with *Markman*, should facilitate quicker judicial decisions of indefiniteness. That said, many district courts, with the Federal Circuit’s blessing, allow juries to decide definiteness, so the increase in speed and savings in enforcement costs from *Nautilus* is not entirely clear.³⁰⁸

The Federal Circuit’s 2015 en banc ruling on functional claiming, *Williamson v. Citrix Online, LLC*, also facilitates quicker decisions.³⁰⁹ At issue in that case was § 112(f) of the Patent Act, which allows a patent claim limitation to be

³⁰⁴ 517 U.S. 370, 372 (1996).

³⁰⁵ Meurer, *supra* note 213, at 534-35.

³⁰⁶ *Cf.* Ashtor, *supra* note 156, at 2 (finding, from 2004 to 2011, a “significant increase” in patent litigation complexity as measured by case duration and the number of docket entries, motions, and orders, attributing the increase to the discovery and claim construction phases).

³⁰⁷ 134 S. Ct. 2120, 2124 (2014). Under the Federal Circuit’s abrogated rule, a patent claim was invalid only if it was “insolubly ambiguous.” *Id.* The Supreme Court, by contrast, held that “a patent is invalid for indefiniteness if its claims, read in light of the specification . . . and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention.” *Id.*

³⁰⁸ *See, e.g.*, *Koninklijke Philips N.V. v. Zoll Med. Corp.*, No. 2014-1764, 2016 WL 4045330, at *20 & n.5 (Fed. Cir. July 28, 2016) (vacating jury verdict of no indefiniteness where jury instruction was based on pre-*Nautilus* law, remanding for another jury trial). The confusion surrounding the allocation of decisionmaking authority on indefiniteness is well illustrated by a recent Federal Circuit decision emphasizing that, because indefiniteness is a matter of claim construction, it reviews the district court’s decision de novo, but also noting that indefiniteness must be proven by clear and convincing evidence. *Sonix Tech. Co. v. Pubs. Int’l Ltd.*, 844 F.3d 1370, 1376-77 (Fed. Cir. 2017).

³⁰⁹ 792 F.3d 1339 (Fed. Cir. 2015).

drafted as a “means . . . for performing a specified function” without reciting structure to perform that function.³¹⁰ The scope of a limitation drafted in that format is, under the statute, limited to the structures described in the patent’s specification,³¹¹ which is the detailed description of the invention that precedes the claims. If the specification does not disclose structure for performing the claimed function, the patent claim is invalid as indefinite.³¹² The Federal Circuit had previously made it difficult to invalidate a patent under that doctrine, holding that if a claim did not expressly use the term “means,” there was a “strong” presumption that § 112(f) did not apply and, therefore, no disclosure of structure was required.³¹³ In *Williamson*, the court overturned that case law, ruling that, to determine if § 112(f) applies, the court should simply determine “whether the words of the claim are understood by persons of ordinary skill in the art to have a sufficiently definite meaning as the name for structure.”³¹⁴

The decision to apply § 112(f) and whether to invalidate a patent under that provision are both questions of claim construction for the judge.³¹⁵ Thus, *Williamson*’s embrace of a broader applicability of § 112(f) should, like many of the other developments discussed in this article, make it easier to invalidate patents early in a case.³¹⁶ That said, as I have argued elsewhere, most patent claims that contain functional language also contain limitations that a court can plausibly identify as structure to avoid applying § 112(f) if it so chooses.³¹⁷ At most, then, *Williamson* offers courts *discretion* to invoke § 112(f) as a mechanism for a quick decision.

A final development related to claim construction that facilitates quicker decisions is the demise of the doctrine of equivalents.³¹⁸ The doctrine of equivalents permits the factfinder to expand the literal scope of the patent to find infringement by products or processes that are “insubstantially different” from the claimed invention.³¹⁹ Since *Markman*, however, infringement claims under the

³¹⁰ 35 U.S.C. § 112(f).

³¹¹ *Id.*

³¹² *Noah Sys., Inc. v. Intuit Inc.*, 675 F.3d 1302, 1311-12 (Fed. Cir. 2012).

³¹³ *Lighting World, Inc. v. Birchwood Lighting, Inc.*, 382 F.3d 1354, 1358 (Fed. Cir. 2004).

³¹⁴ *Williamson*, 792 F.3d at 1349.

³¹⁵ *Id.* at 1346.

³¹⁶ *See, e.g., Media Rights Techs., Inc. v. Capital One Fin. Corp.*, 800 F.3d 1366, 1369 (Fed. Cir. 2015) (invalidating a patent under *Williamson* on a motion for judgment on the pleadings filed at the same time as the defendant’s opening claim construction brief).

³¹⁷ Paul R. Gugliuzza, *Early Filing and Functional Claiming*, 96 B.U. L. REV. 1223, 1239-41 (2016).

³¹⁸ *See Meurer, supra* note 213, at 535.

³¹⁹ *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 731-32 (2002).

doctrine of equivalents have increasingly failed.³²⁰ Though commentators disagree in the particulars about why that is so, they generally acknowledge that *Markman* played a key role by making judicial claim construction the centerpiece of patent litigation.³²¹ Because the judge now determines the scope of the patent pre-trial, the judge is unlikely to allow the jury to effectively nullify the claim construction ruling by finding infringement under the doctrine of equivalents.

2. *Local Patent Rules.*—In recent years, numerous federal district courts have adopted local procedural rules, often for the express purpose of speeding up historically slow-moving patent litigation.³²² In 2000, the Northern District of California became the first district to adopt local patent rules. Thirty districts now have them, and they cover all aspects of pre-trial procedure, including the timing and sequence of discovery,³²³ the process of claim construction,³²⁴ and even, in one district, pleading requirements.³²⁵

Many features of local patent rules appear to facilitate quick decisions, or, at least, quick resolutions. For example, some districts' rules (along with individual judges' standing orders) impose early deadlines for document production³²⁶ and

³²⁰ John R. Allison & Mark A. Lemley, *The (Unnoticed) Demise of the Doctrine of Equivalents*, 59 STAN. L. REV. 955, 978 (2007) (reporting that, in the three years before *Markman* was decided in 1996, patentees won forty percent of doctrine of equivalents cases compared with twenty-four percent for various periods from 1999 through 2005).

³²¹ See *id.*; David L. Schwartz, *Explaining the Demise of the Doctrine of Equivalents*, 26 BERKELEY TECH. L.J. 1157, 1160 (2011) (also highlighting the role of the Federal Circuit's decision in *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448 (Fed. Cir. 1998) (en banc), which adopted a de novo standard of review for claim construction); Lee Petherbridge, *On the Decline of the Doctrine of Equivalents*, 31 CARDOZO L. REV. 1371, 1402 (2010) (noting that substantive changes also made it more difficult to establish infringement under the doctrine of equivalents).

³²² See Ryan Davis, *Icon of IP: Former U.S. District Judge T. John Ward*, LAW360 (July 8, 2016), <http://www.law360.com/ip/articles/814679>. For a thorough description and analysis of those rules, see Megan M. La Belle, *The Local Rules of Patent Procedure*, 47 ARIZ. ST. L.J. 63 (2015).

³²³ *E.g.*, N.D. ILL. PAT. R. 2.1.

³²⁴ *E.g.*, E.D. TEX. PAT. R. 4-2 to 4-6.

³²⁵ D.N.H. PAT. R. 2.1(a) (requiring a complaint for patent infringement to include “a list of all products or processes (by model number, trade name, or other specific identifying characteristic) for which the claimant . . . has developed a good-faith basis for alleging infringement, as of the time of filing the pleading” and “at least one illustrative asserted patent claim (per asserted patent) for each accused product or process”).

³²⁶ See La Belle, *supra* note 322, at 100; see also Eastern District of Texas, Sample Discovery Order for Patent Cases Assigned to Judge Rodney Gilstrap and Judge Roy Payne 3, <http://www.txed.uscourts.gov/page1.shtml?location=info;judge&judge=17> (requiring the parties to produce all documents “that are relevant to the pleaded claims or defenses involved in this action” with their initial disclosures and without awaiting a discovery request).

for the parties to exchange infringement and validity contentions.³²⁷ Those deadlines help speed cases toward claim construction and summary judgment.³²⁸ Compelled information exchange about the merits of the case is also thought to facilitate settlement,³²⁹ building on the mandatory initial disclosures first introduced into the Federal Rules of Civil Procedure in the 1990s.³³⁰ In addition, local rules mandate settlement conferences—sometimes more than one—often in front of a magistrate judge,³³¹ which can also lead to quicker resolution of the case. And some local rules complement deadlines for disclosure by providing specific, relatively quick trial dates.³³²

In the District of Delaware, which does not have local patent rules but hears the second most patent cases of any district, the judges have individually adopted numerous procedures designed to resolve cases more quickly.³³³ These procedures include: setting an initial case management conference as soon as any defendant files an answer (as opposed to waiting until any motions to dismiss are resolved),³³⁴ providing for early *Markman* hearings on case dispositive claim

³²⁷ See Travis Jensen, *Infringement Contentions Summary Chart*, LOCAL PATENT RULES, <http://www.localpatentrules.com/wp-content/uploads/2014/03/Chart%20Infringement%20Contentions.pdf>. Most districts' local rules require the plaintiff to disclose its infringement contentions shortly after the initial case management conference. The Eastern District of Texas, by contrast, requires the plaintiff to disclose its infringement contentions ten days *before* the case management conference, E.D. TEX. PAT. R. 3-1, meaning that the defendant's invalidity contentions are also due earlier than in many other districts, see Travis Jensen, *Invalidity Contentions Summary Chart*, LOCAL PATENT RULES, <http://www.localpatentrules.com/wp-content/uploads/2014/03/Chart%20Invalidity%20Contentions.pdf>; see also E.D. TEX. PAT. R. 3-3 (providing that invalidity contentions are due forty-five days after infringement contentions).

³²⁸ It should be noted that the *combination* of *Markman* and local rules leading to an early claim construction decision is particularly useful in reaching quick decisions, because, as noted, claim construction is often dispositive of infringement and can lead to a stipulated judgment to allow an appeal. See John R. Allison et al., *Understanding the Realities of Modern Patent Litigation*, 92 TEX. L. REV. 1769, 1789 (2014).

³²⁹ See generally Robert G. Bone, *Discovery*, in PROCEDURAL LAW AND ECONOMICS 188, 192 (Chris William Sanchirico, ed., 2012).

³³⁰ 8A WRIGHT ET AL., *supra* note 229, § 2053.

³³¹ See, e.g., D. NEV. LOCAL R. 16.1-19 (requiring settlement conferences to take place (1) before claim construction, (2) after claim construction, and (3) before trial).

³³² See, e.g., S.D. OHIO PAT. R. 107.1 (setting the trial date at eighteen months after the initial scheduling conference).

³³³ Many of these changes were spurred by the district's "Patent Study Group," which recommended that judges "help identify weaker cases and end them early," set a trial date "at the beginning of the case and keep it," and "issu[e] decisions," particularly claim construction decisions, "quickly." Chad Stover, *Another Delaware Judge Outlines New Patent Case Practices*, LAW360 (May 19, 2014), <http://www.law360.com/articles/539183/another-delaware-judge-outlines-new-patent-case-practices>.

³³⁴ Hon. Leonard P. Stark, District of Delaware, Revised Procedures for Managing Patent Cases 5 (June 18, 2014), <http://www.ded.uscourts.gov/sites/default/files/Chambers/LPS/PatentProcs/LPS-PatentProcedures.pdf>.

terms,³³⁵ indicating a willingness to limit the number of claims asserted,³³⁶ and setting a trial date in the initial case scheduling order.³³⁷

Though local rules and individual judges' practices (sometimes termed "local-local" rules³³⁸) facilitate quicker decisions, those decisions will, like an early claim construction order that leads to summary judgment, not necessarily be cheap. Early disclosure deadlines, for instance, can require the parties to undertake significant discovery effort even while, say, a motion to dismiss on eligibility grounds is under consideration or the defendant is preparing a petition for inter partes review and seeking a stay of litigation.³³⁹

Accordingly, proposals have percolated in Congress that would require courts to stay discovery until preliminary motions (such as motions to dismiss or to transfer venue) are resolved³⁴⁰ or until the judge issues the claim construction order.³⁴¹ It is important to recognize, however, that judges already have ample discretion to manage litigation to minimize discovery costs in cases where these early proceedings are potentially dispositive, as illustrated by the Delaware judges' individual practices.³⁴²

3. *Declaratory Judgments.*—While most of the examples of legal changes that facilitate quick decisions have the effect of ending litigation earlier, recent decisions in the declaratory judgment context make it possible for accused infringers to get into court more quickly to seek a ruling of invalidity, noninfringement, or both. By statute, the federal courts may hear declaratory judgment claims only when there is an "actual controversy" between the parties.³⁴³ For many years, the Federal Circuit held that an actual controversy existed only when the potential infringer had a reasonable apprehension it was about to be sued for infringement.³⁴⁴ But the Supreme Court, in its 2007 decision

³³⁵ *Id.* at 8.

³³⁶ *E.g.*, Hon. Sue L. Robinson, District of Delaware, Patent Case Scheduling Order ¶ 5(i) (Feb. 5, 2015), <http://www.ded.uscourts.gov/sites/default/files/Chambers/SLR/Forms/Sched-Order-Patent2-05-15.pdf>.

³³⁷ *E.g.*, Hon. Gregory M. Sleet, District of Delaware, Patent Scheduling Order 5 (Feb. 25, 2014), http://www.ded.uscourts.gov/sites/default/files/Chambers/GMS/Forms/Sched_Order_Patent_Rev02-25-14.pdf.

³³⁸ *See* La Belle, *supra* note 322, at 66 (citing Paul D. Carrington, *Renovating Discovery*, 49 ALA. L. REV. 51, 56 (1997)).

³³⁹ *See* Love & Yoon, *supra* note 35, at 23.

³⁴⁰ *See, e.g.*, Innovation Act, H.R. 9, § 3(d)(1), 114th Cong. (2015).

³⁴¹ *See, e.g.*, Innovation Act, H.R. 3309, § 3(d), 113th Cong. (2013).

³⁴² *See generally* Gugliuzza, *supra* note 22, at 293 (describing the discretion the Federal Rules provide district judges to manage discovery).

³⁴³ 28 U.S.C. § 2201(a).

³⁴⁴ *E.g.*, *Gen-Probe Inc. v. Vysis, Inc.*, 359 F.3d 1376, 1380 (Fed. Cir. 2004).

in *MedImmune, Inc. v. Genentech, Inc.*, rejected that restrictive test, adopting a more flexible standard that looks at “all the circumstances” to determine whether there is a sufficiently concrete dispute to warrant a declaratory judgment.³⁴⁵

This new standard allows potential infringers to seek a declaratory judgment earlier—before the dispute has escalated to threats of litigation. For instance, in the Federal Circuit’s leading case applying *MedImmune*, the patentee had explicitly stated that it did not intend to file suit.³⁴⁶ Yet the court held that an oral presentation and written analysis alleging infringement, during the course of licensing negotiations, were sufficient to create the required controversy.³⁴⁷ In a later case, the court made clear that a party may file a declaratory judgment suit even when the patentee has not “affirmatively accused” it of infringement.³⁴⁸ And, in one recent case, the Federal Circuit held that an actual controversy existed even though the patentee never referenced—and, indeed, did not know about—the specific products that were potentially infringing.³⁴⁹

By lowering the barriers to filing a declaratory judgment suit, *MedImmune* makes it easier for potential infringers to clear invalid patents.³⁵⁰ Of course, this benefit must be balanced against the fact that, but for the relaxation of the standing requirement, there are probably cases on the margins where there might have been no litigation and hence no process costs incurred at all. Moreover, the Federal Circuit’s restrictive law of personal jurisdiction can deter potential infringers from filing a declaratory judgment suit.³⁵¹ In several cases, the Federal Circuit has held that cease-and-desist letters sent into a state and licensing negotiations conducted in that state do not establish personal jurisdiction over the patentee,³⁵² though the court retreated from that restrictive view in its most recent decision in this area.³⁵³

³⁴⁵ 549 U.S. 118, 127 (2007) (internal quotation marks omitted).

³⁴⁶ *SanDisk Corp. v. STMicroelectronics, Inc.*, 480 F.3d 1372, 1377 (Fed. Cir. 2007).

³⁴⁷ *Id.* at 1382.

³⁴⁸ *Danisco U.S. Inc. v. Novozymes A/S*, 744 F.3d 1325, 1330 (Fed. Cir. 2014).

³⁴⁹ *Asia Vital Components Co. v. Asetek Danmark A/S*, 837 F.3d 1249, 1254 (Fed. Cir. 2016).

³⁵⁰ For an argument that, even after *MedImmune*, the Federal Circuit has continued to make it too difficult for certain litigants to challenge patents, see Gaia Bernstein, *The End User’s Predicament: User Standing in Patent Litigation*, 96 B.U. L. REV. 1929, 1937 (2016).

³⁵¹ For a comprehensive critique of Federal Circuit personal jurisdiction law in declaratory judgment suits, see Megan M. La Belle, *Patent Litigation, Personal Jurisdiction, and the Public Good*, 18 GEO. MASON L. REV. 43 (2010).

³⁵² *E.g.*, *Autogenomics, Inc. v. Oxford Gene Tech. Ltd.*, 566 F.3d 1012, 1019 (Fed. Cir. 2009); *Red Wing Shoe Co. v. Hockerson-Halberstadt, Inc.*, 148 F.3d 1355, 1361 (Fed. Cir. 1998).

³⁵³ *Xilinx, Inc. v. Papst Licensing GmbH & Co.*, --- F.3d ---, No. 2015-1919, 2017 WL 605307, at *7 (Fed. Cir. Feb. 15, 2017) (holding, without distinguishing its older case law, that

4. *The ITC.*—Under § 337 of the Tariff Act, the U.S. International Trade Commission has the power to issue exclusion orders that prohibit the importation of goods that infringe a U.S. patent.³⁵⁴ ITC proceedings move quickly compared to patent litigation in court, concluding in about seventeen months on average.³⁵⁵ This speed, by many accounts, has contributed to the growth of the ITC's patent caseload in the past two decades—from about ten cases per year in the late 1990s, to roughly fifty cases per year today.³⁵⁶

Some of that growth is, of course, due to the Supreme Court's 2006 decision in *eBay Inc. v. MercExchange, L.L.C.*,³⁵⁷ which made it more difficult for plaintiffs who do not practice their patent to obtain an injunction in federal court.³⁵⁸ Though the ITC cannot award damages for infringement, it enters an exclusion order—effectively, an injunction against future infringement if the infringing product is imported from abroad—in practically every case in which the patentee prevails.³⁵⁹

ITC decisions, though, are not inexpensive by any means. ITC proceedings, because they raise issues of both validity and infringement, entail much of the same discovery that would occur in a district court, only condensed into a shorter time period.³⁶⁰ The accused infringer is also required to produce ITC-specific evidence, such as data about the quantity and value of its imports, customs documents, and information about its operations and sales in the United States.³⁶¹ Moreover, the strict time line does not lend itself to nuanced discovery disputes, and many observers believe that the administrative law judges who conduct ITC

letters sent into the forum state and licensing negotiations conducted in that state established personal jurisdiction over the patentee).

³⁵⁴ 19 U.S.C. § 1337.

³⁵⁵ Sapna Kumar, *The Other Patent Agency: Congressional Regulation of the ITC*, 61 FLA. L. REV. 529, 536-37 (2009).

³⁵⁶ U.S. Int'l Trade Comm'n, *Number of Section 337 Investigations Instituted by Year*, http://www.usitc.gov/intellectual_property/documents/cy_337_institutions.pdf; U.S. Int'l Trade Comm'n, *Section 337 Statistics: Number of New, Completed, and Active Investigations by Fiscal Year*, https://www.usitc.gov/intellectual_property/337_statistics_number_new_completed_and_active.htm.

³⁵⁷ 547 U.S. 388 (2006).

³⁵⁸ Christopher B. Seaman, *Permanent Injunctions in Patent Litigation After eBay: An Empirical Study*, 101 IOWA L. REV. 1949, 1952 (2016).

³⁵⁹ Colleen V. Chien & Mark A. Lemley, *Patent Holdup, the ITC, and the Public Interest*, 98 CORNELL L. REV. 1, 16 (2012).

³⁶⁰ Bert C. Reiser & Cyrus T. Frelinghuysen, *An Overview of Section 337 Litigation Before the ITC*, LAW360 (Aug. 9, 2010), <http://www.law360.com/articles/183706/an-overview-of-section-337-litigation-before-the-itc>.

³⁶¹ Steven E. Adkins & Matthew Bathon, *Preparing for Discovery and Witness Selection at the ITC*, LAW360 (May 13, 2016), <http://www.law360.com/articles/794816/preparing-for-discovery-and-witness-selection-at-the-itc>.

proceedings err on the side of requiring disclosure.³⁶² Thus, though ITC proceedings fit comfortably within a trend toward quick decisions, in terms of litigation costs, they seem neutral at best. In fact, commentators have criticized the Commission's nearly automatic exclusion orders for allowing patentees to obtain settlements that exceed the patent's economic value, particularly in cases in which the patent covers a small portion of a multicomponent product, such as a computer or smartphone.³⁶³ As others have recommended, the ITC could reduce those holdup costs by adjusting the scope and timing of its exclusion orders in appropriate cases.³⁶⁴

IV. QUICK DECISIONS IN THE FUTURE

As the discussion above demonstrates, many recent developments in patent law can be understood as providing mechanisms to increase speed to decision and reduce enforcement costs. These changes have the potential to significantly improve the patent system: AIA proceedings and motions to dismiss on eligibility grounds, for example, provide new mechanisms for resolving infringement disputes before discovery, something that is particularly useful in deterring nuisance litigation by NPEs. Yet the cost savings of quick decisions is not beyond doubt, for quick decisions may result in erroneous patent invalidations and may incentivize litigation about issues, such as pleading sufficiency, that were not previously disputed. Given the uncertainty about cost savings, and the fact that most recent changes help defendants avoid liability for infringement, it is tempting to dismiss those changes as simply part of an emerging shift to an era of weaker patent rights. Yet viewing patent law through the lens of enforcement costs can teach lessons that transcend the pro-patent/anti-patent divide.

A. Merely an Anti-Patent Moment?

Without a doubt, many mechanisms of quick decisions favor accused infringers. Only an infringer can win a case through a motion to dismiss on eligibility grounds. *Markman*'s fractioning of claim construction from trial creates an additional stage at which a defendant can prevail.³⁶⁵ Though a PTO decision confirming patent validity receives some deference in future litigation, accused infringers plainly enjoy a greater benefit if they are able to invalidate the patent. Thus, one might reasonably view these developments as simply part of an

³⁶² Asim Bhansali, *ABC Guide to the ITC*, IP MAGAZINE (Oct. 2012), http://www.kvn.com/Templates/media/files/Articles/ABC%20Guide%20to%20ITC_IPM%20Oct%202012.pdf.

³⁶³ Chien & Lemley, *supra* note 359, at 24-25.

³⁶⁴ *See id.* at 32-42.

³⁶⁵ For a general discussion of how the division of patent law doctrines into discrete procedural steps favors infringers, see Mark A. Lemley, *The Fractioning of Patent Law* 504, 506, in *INTELLECTUAL PROPERTY AND THE COMMON LAW* (Shyamkrishna Balganeshe ed., 2012).

incipient anti-patent ethos, destined to be brushed aside when judges, scholars, and policymakers rediscover the merits of patents as incentives for innovation.³⁶⁶

But the pro- or anti-patent valence of the trend is toward quick decisions is arguably more nuanced. The grant rate of motions to dismiss on eligibility grounds has, as noted, fallen from nearly sixty-five percent to fifty percent in the past year, perhaps providing a preliminary indication that those invalidations are increasingly confined to the weakest patents. Alternatively, it could be that the weakest patents have already been invalidated or are no longer being asserted in litigation. In any case, falling grant rates provide some reason to think that the invigoration of the eligibility requirement is not an all-out assault on patent rights.

As for the supposedly deadly AIA proceedings, recall that the PTAB can institute inter partes review only if it is reasonably likely that a challenged claim is invalid and that the bar for instituting post-grant and covered business method review is even higher, requiring that the claim must “more likely than not” be invalid. Accordingly, the PTAB institutes review of fewer than half of all challenged patent claims, and it invalidates only about a quarter of challenged claims.³⁶⁷ These numbers suggest that characterizations of the PTAB as a “death squad” may be overblown.

In terms of procedural changes, the speed engendered by local patent rules can also favor patentees. Early claim constructions often lead to an early summary judgment of infringement. Tight deadlines for discovery in places such as the Eastern District of Texas also favor patent owners.³⁶⁸ Patent lawyers say that “speed kills defendants” because “the faster a court conducts its business, the faster a defendant must decide whether to risk a jury decision or settle.”³⁶⁹ A speedy trial or quick settlement can also “allow a patentee to build a war chest to sue other defendants, and, in the case of trial, build the reputation of the patent.”³⁷⁰ Indeed, evidence suggests that East Texas has become the favorite venue for patentees not because its substantive rulings are particularly pro-patentee, but because of procedural doctrines and practices that enhance

³⁶⁶ On the tendency of patent law to cycle between pro-patent and anti-patent eras, see Lemley, *supra* note 40, at 13-14. The prior, pro-patent era commenced in the early 1980s, and was itself a response to the era of weak patent rights that spanned the 1960s and 1970s. See Rochelle Cooper Dreyfuss, *The Federal Circuit: A Case Study in Specialized Courts*, 64 N.Y.U. L. REV. 1, 6 (1989).

³⁶⁷ See PTAB STATISTICS, *supra* note 2, at 12-13.

³⁶⁸ Daniel Klerman & Greg Reilly, *Forum Selling*, 89 S. CAL. L. REV. 241, 266 (2016).

³⁶⁹ J. Jonas Anderson, *Court Competition for Patent Cases*, 163 U. PA. L. REV. 631, 677 (2015).

³⁷⁰ Mark A. Lemley, *Where to File Your Patent Case*, 38 AIPLA Q.J. 401, 413 (2010).

plaintiffs' bargaining power in settlement negotiations.³⁷¹ The speed and broad remedies available at the ITC favor patent owners, too.

In addition, the Supreme Court's recent patent decisions have neither uniformly facilitated quick decisions nor uniformly favored accused infringers. A notable example is the Supreme Court's 2016 decision in *Halo Electronics, Inc. v. Pulse Electronics, Inc.*³⁷² Before *Halo*, the issue of whether the plaintiff could recover enhanced damages for willful infringement could often be resolved in the defendant's favor on summary judgment. Under Federal Circuit law, a defendant who had any objectively reasonable defense to infringement could not be liable for enhanced damages,³⁷³ and the reasonableness of a defense was a question of law to be determined by the judge.³⁷⁴ In *Halo*, however, the Supreme Court rejected the Federal Circuit's categorical bar on enhanced damages when the defendant had a reasonable defense, instead holding simply that the decision to award enhanced damages lies within the district court's discretion.³⁷⁵ Because the enhanced damages inquiry no longer contains a threshold question of law, the issue of willful infringement will likely get past summary judgment and go to the jury more frequently.³⁷⁶ Moreover, the fact that juries will increasingly hear evidence suggesting that the defendant intentionally infringed could skew results on the basic question of liability in favor of patentees.

In sum, the tendency of modern patent law is not invariably toward quicker and cheaper resolution, nor do current trends uniformly favor accused infringers. Indeed, some mechanisms of quick resolution actually aid patent owners in obtaining settlements and proving infringement.

³⁷¹ See Anderson, *supra* note 369, at 634-35; Klerman & Reilly, *supra* note 368, at 250; Love & Yoon, *supra* note 35, at 5.

³⁷² 136 S. Ct. 1923 (2016).

³⁷³ *Spine Solutions, Inc. v. Medtronic Sofamor Danek USA, Inc.*, 620 F.3d 1305, 1319 (Fed. Cir. 2010).

³⁷⁴ *Bard Peripheral Vascular, Inc. v. W.L. Gore & Assocs.*, 682 F.3d 1003, 1006-07 (Fed. Cir. 2012).

³⁷⁵ To guide that discretion, the Court noted that "[t]he sort of conduct warranting enhanced damages has been variously described in our cases as willful, wanton, malicious, bad-faith, deliberate, consciously wrongful, flagrant, or—indeed—characteristic of a pirate." *Halo*, 136 S. Ct. at 1932.

³⁷⁶ See, e.g., Patrick M. Arenz & William E. Manske, *The Halo Effect: More Jury Trials on Willfulness*, LAW360 (Aug. 1, 2016), <http://www.law360.com/articles/823447/the-halo-effect-more-jury-trials-on-willfulness>. But cf. Michael Feldman & Mark A. Lemley, "Characteristic of a Pirate": Willfulness and Treble Damages 3 (Stanford Public Law Working Paper No. 2811773, July 19, 2016), available at <https://ssrn.com/abstract=2811773> (suggesting that, because the Court in *Halo* adopted an "abuse of discretion" standard of review, "the power to impose [enhanced damages] may now lie exclusively with the judge").

B. What Can We Learn?

Thinking about patent law in terms of speed and enforcement costs provide useful lessons that transcend the pro-patent/anti-patent divide and that can enrich the development of substantive patent law. For instance, some aspects of current eligibility doctrine are substantively problematic. The test for determining eligibility is vague and results can be unpredictable. As I have highlighted, however, a comprehensive critique of that doctrine must acknowledge the savings in litigation costs that stems from allowing courts to resolve validity on the pleadings.

In a similar vein, the new AIA proceedings have undoubtedly resulted in the invalidation of many “bad patents,” which would seem to be a useful corrective to the lax standards of patentability applied by the Federal Circuit and the PTO in the 1990s and the early 2000s. Yet the social gain from clearing those patents is undermined by the costs of permitting the validity of a single patent to be reviewed by both the courts and the PTO.

Likewise, the deletion of the form complaint for patent infringement from the Federal Rules has been praised as offering defendants protection from frivolous claims of infringement. But that change may have simply increased litigation about the sufficiency of pleadings with no corresponding benefit in terms of dispositive dismissals of weak claims.

Understanding these enforcement-related complications can help patent law strike the essential balance between the ideal of patents as an incentive for innovation and the reality that bad patents and weak claims for infringement exist and should be amenable to quick disposition. Striking a better balance between protecting valid patents and permitting quick and cheap disposition of weak claims for infringement could help modulate the often dramatic swings between pro- and anti-patent eras.

CONCLUSION

The clear trend in patent litigation, as in many areas of civil litigation, is toward quicker resolution. Generally speaking, this trend is a reasonable response to concerns that the PTO has issued too many patents that are invalid and that patentees can too easily use those patents to extract nuisance-value settlements. But not all quick decisions are cheap, and they may increase the risk of error. The enforcement-costs based framework developed by this article provides a useful tool for analyzing the normative merit of many recent developments in patent law.