

# NOTES

## AMERICA INVENTS—AND SO CAN YOU? THE DICHOTOMY OF SUBJECT-MATTER ELIGIBILITY CHALLENGES IN POST-GRANT PROCEEDINGS

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*In 2011, Congress passed the Leahy-Smith America Invents Act, a broad-sweeping reform of the American patent system. Within this landmark piece of legislation, Congress created trial-like administrative proceedings as a cost-effective alternative to litigation. Inter partes review allows third parties to go before the Patent and Trademark Office and attempt to invalidate an already issued patent on the limited grounds that it fails to meet either novelty or nonobvious standards. For a brief, nine-month period following patent issuance, however, a different administrative proceeding governs: post-grant review. With PGR, third parties can bring invalidity challenges that are unavailable to them at IPR—such as the claim that the invention does not encompass patentable subject matter.*

*This Note aims to understand the effect of limiting administrative subject-matter eligibility challenges to a discrete nine-month window, labeling this phenomenon the “IPR–PGR dichotomy” in the process. It argues that, much like common statutes of limitations, the nine-month barrier incentivizes third parties to bring their subject-matter eligibility claims early. But as a consequence, smaller companies and individual inventors will likely be shut out, with only big businesses able to make use of the advantages PGR presents. As such, the Note advocates for legislative reform that would allow more third parties, including the “little guy,” to bring subject-matter eligibility challenges before the PTO.*

### INTRODUCTION

*“[A]nything under the sun that is made by man . . .”<sup>1</sup>*

Thirty years after patent law’s recodification in 1952,<sup>2</sup> the judicial gloss of the accompanying legislative history suggested these words encapsulate an expansive view of the types of inventions the Patent Act

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1. S. Rep. No. 82-1979, at 5 (1952), reprinted in 1952 U.S.C.C.A.N. 2394, 2399; H.R. Rep. No. 82-1923, at 6 (1952), reprinted in 1952 U.S.C.C.A.N. 2394, 2399.

2. Act of July 19, 1952, Pub. L. No. 82-593, 66 Stat. 792 (codified as amended at 35 U.S.C. §§ 1–293 (2012)). This statute will henceforth be referred to in this Note as the “1952 Patent Act.”

was designed to protect.<sup>3</sup> But this interpretation belied a hidden truth—not *every* invention is patent eligible.<sup>4</sup> The question thus becomes: Where exactly does patent law draw the line for eligibility?

Courts had earlier determined that patent protection does not extend to laws of nature, natural phenomena, or abstract ideas—the so-called “judicial exceptions” to patent protection.<sup>5</sup> Under this theory,<sup>6</sup> such seminal discoveries as Einstein’s theory of relativity and Newton’s law of gravity are not patent eligible.<sup>7</sup> What precisely qualifies under the judicial exceptions, however, is ill-defined.<sup>8</sup> In particular, biotechnology, business methods, and computer software have recently been mired in subject-matter eligibility controversy, with questions concerning the validity of patents within these fields reaching the Supreme Court four times since 2010.<sup>9</sup>

While the judiciary engaged in delineating the boundaries of patent-eligible subject matter, the legislature undertook broad revision of patent

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3. Both the Supreme Court and the Court of Appeals for the Federal Circuit have endorsed this view of the legislative history accompanying the 1952 Patent Act. See *Diamond v. Chakrabarty*, 447 U.S. 303, 308–09 (1980) (“Congress plainly contemplated that the patent laws would be given wide scope.”); *State St. Bank & Tr. Co. v. Signature Fin. Grp., Inc.*, 149 F.3d 1368, 1373 (Fed. Cir. 1998) (supporting Supreme Court’s view and noting “it is improper to read limitations . . . on the subject matter that may be patented where the legislative history indicates that Congress clearly did not intend such limitations”), abrogated on other grounds by *In re Bilski*, 545 F.3d 943, 959–60 (Fed. Cir. 2008) (en banc).

4. In fact, the Court in *Chakrabarty* qualified its interpretation of the legislative history almost immediately. See 447 U.S. at 309 (“This is not to suggest that [the 1952 Patent Act] has no limits or that it embraces *every* discovery.” (emphasis added)).

5. E.g., *id.* (noting limitation to patent-eligible subject matter); *Funk Bros. Seed Co. v. Kalo Inoculant Co.*, 333 U.S. 127, 130 (1948) (same); see also *infra* section I.A.2 (describing precedent, including *Chakrabarty* and *Funk Bros.*, for excluding laws of nature, natural phenomena, and abstract ideas from patent protection).

6. For ease, this Note will refer to the limits of patent-eligible subject matter as the “judicial exceptions.” This terminology is meant to include all types of discoveries (laws of nature, natural phenomena, and abstract ideas) that are not patent eligible.

7. Courts have often used these examples to illustrate the boundaries of what inventions are patent eligible. See, e.g., *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1293 (2012) (using Einstein and Newton examples); *Chakrabarty*, 447 U.S. at 309 (“Einstein could not patent his celebrated law that  $E=mc^2$ ; nor could Newton have patented the law of gravity.”).

8. See *Funk Bros.*, 333 U.S. at 135 (Frankfurter, J., concurring) (“[T]hese are vague and malleable terms infected with too much ambiguity and equivocation.”); cf. *infra* section I.B.2 (discussing controversy surrounding judicial exceptions).

9. See *Alice Corp. Pty. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2352 (2014) (considering validity of patent for computer-mediated “settlement risk”); *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2110–11 (2013) (contemplating patent eligibility of naturally occurring genes); *Mayo*, 132 S. Ct. at 1294 (assessing whether method for determining drug-dosage levels merits exclusionary rights); *Bilski v. Kappos*, 130 S. Ct. 3218, 3223 (2010) (evaluating application for patent explaining “how buyers and sellers of commodities in the energy market can protect, or hedge, against the risk of price changes”).

law more generally. In 2011, Congress passed the Leahy-Smith America Invents Act (AIA)<sup>10</sup>—perhaps the most meaningful patent reform in fifty years.<sup>11</sup> The reform provision that appears to have garnered the most attention<sup>12</sup> transformed the American patent system from one that generally rewards the first to make an invention (“first-to-invent”) to one that gives priority to the first inventor to file (“first-to-file”).<sup>13</sup>

Not only did the AIA significantly affect the patent application process,<sup>14</sup> but it also created new mechanisms for third parties to chal-

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10. Pub. L. No. 112-29, 125 Stat. 284 (2011) (amending scattered sections of 35 U.S.C.). For an overview of the AIA, see generally Andrew S. Baluch et al., *America Invents Act: Law and Analysis* (2015 ed.); Edward D. Manzo, *The America Invents Act: A Guide to Patent Litigation and Patent Procedure* (2013 ed.).

11. See, e.g., Joe Matal, *A Guide to the Legislative History of the America Invents Act: Part I of II*, 21 Fed. Cir. B.J. 435, 435 (2012) (“The AIA is the first comprehensive bill to be enacted since the Patent Act of 1952 . . . , and it arguably makes the most substantial changes to the law since those imposed by the Patent Act of 1836 . . . , which created the system of patent examination.” (footnote omitted)); Patrick Leahy & Orrin Hatch, *Meaningful Patent Reform*, Wash. Times (Feb. 15, 2008), <http://www.washingtontimes.com/news/2008/feb/15/meaningful-patent-reform/> [<http://perma.cc/Z5WH-7F8Y>] (advocating for AIA’s enactment by stating “current law was last thoroughly updated more than 50 years ago, and much has changed since then”). Congress did, of course, enact changes in the intervening years between the 1952 Act and the AIA, such as implementing reexamination proceedings. See *infra* section I.C.1 (addressing history of *ex parte* and *inter partes* reexaminations). But the AIA implemented truly profound changes. See *infra* notes 12–14, 16–17 and accompanying text (noting significant provisions of AIA).

12. See John Villasenor, *March 16, 2013: The United States Transitions to a ‘First-Inventor-to-File’ Patent System*, *Forbes* (Mar. 11, 2013, 11:54 PM), <http://www.forbes.com/sites/johnvillasenor/2013/03/11/march-16-2013-america-transitions-to-a-first-inventor-to-file-patent-system/> [<http://perma.cc/7492-VTX2>] (noting change to first-to-file has “gotten significant attention”); cf., e.g., Nathan Hurst, *How the America Invents Act Will Change Patenting Forever*, *Wired* (Mar. 15, 2013, 6:30 AM), <http://www.wired.com/2013/03/america-invents-act/all/> [<http://perma.cc/6HAS-7R3C>] (calling first-to-file provision “meat” of AIA); Steve Lohr, *Investor Challenges a Sweeping Revision in Patent Law*, *N.Y. Times* (Aug. 26, 2012), <http://www.nytimes.com/2012/08/27/technology/mark-stadnyk-challenges-sweeping-revision-in-patent-law.html> (on file with the *Columbia Law Review*) (spilling ink over constitutional challenge to first-to-file provision).

13. AIA sec. 3(a)(2), § 100(i)(1)(B), 125 Stat. at 285; see also Manzo, *supra* note 10, § 2:1, at 5–6 (explaining move from first-to-invent to first-to-file).

14. The legislative history of the AIA nicely summed up the important administrative distinctions between first-to-invent and first-to-file:

In a first-to-file system, the filing date of the application is most relevant; the filing date of an application is an objective date, simple to determine, for it is listed on the face of the patent. In contrast, in a first-to-invent system, the date the invention claimed in the application was actually invented is the determinative date. Unlike the objective date of filing, the date someone invents something is often uncertain, and, when disputed, typically requires corroborating evidence as part of an adjudication.

H.R. Rep. No. 112-98, pt. 1, at 40 (2011), reprinted in 2011 U.S.C.C.A.N. 67, 70 (footnote omitted). As may be expected, the effects of this change in system reverberated throughout patent application provisions of the statute. Cf. Baluch et al., *supra* note 10, ch. 2, at 2-1 to -19 (detailing first-to-file provisions of AIA). One of the most practical consequences was that an administrative mechanism for determining “who invented first”

lenge the validity of a patent through the United States Patent and Trademark Office (PTO)<sup>15</sup> after it has been granted.<sup>16</sup> Known as “post-grant proceedings,” these administrative measures are: post-grant review (PGR), inter partes review (IPR), and covered business method review (CBMR).<sup>17</sup> Congress also created the Patent Trial and Appeal Board (PTAB) as a new administrative body of the PTO and assigned it responsibility for determining disputes in connection with the new post-grant procedures.<sup>18</sup>

In creating PGR and CBMR, Congress opened the door for subject-matter eligibility challenges—claims that a patent is invalid for failing to encompass patentable subject matter—before the PTO.<sup>19</sup> IPR, on the other hand, excludes consideration of statutory subject-matter questions.<sup>20</sup> Although others have noted the existence of this dichotomy<sup>21</sup> in the scope of review of the various post-grant proceedings,<sup>22</sup> this Note aims to fill a gap in the scholarship by examining its implications. Part I explores the history of subject-matter eligibility, from the creation of the judicial exceptions to recent Supreme Court attempts to define the parameters of this doctrine. Part II then surveys the time limit on administrative subject-matter eligibility

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in the event of controversy was no longer necessary. See H.R. Rep. No. 112-98, pt. 1, at 40–42, reprinted in 2011 U.S.C.C.A.N. at 70–72 (noting “interference proceedings”—used to determine dates of invention—would be replaced with “‘derivation’ proceedings,” processes to “ensure that the first person to file the application is actually a true inventor”).

15. The PTO is the governmental agency tasked with issuing patents. About Us, U.S. Patent & Trademark Office (Oct. 29, 2014, 11:38 AM), <http://www.uspto.gov/about/> [<http://perma.cc/2R6T-62CC>] (last modified Feb. 12, 2015, 11:51 AM).

16. See AIA secs. 6, 18, §§ 311–319, 321–329, 125 Stat. at 299–313, 329–31 (detailing proceedings).

17. For an overview of all three post-grant processes, see generally Baluch et al., *supra* note 10, §§ 6.01–02, at 6-3 to -15 (comparing and contrasting PGR and IPR); Manzo, *supra* note 10, pt. III, at 197–421 (overviewing PTO trial practices); Oblon Spivak, *Post-Grant Proceedings Before the Patent Trial and Appeal Board* (2013) (discussing all three post-grant proceedings in detail); Jonathan Tamimi, Note, *Breaking Bad Patents: The Formula for Quick, Inexpensive Resolution of Patent Validity*, 29 *Berkeley Tech. L.J.* 587, app. at 642–43 tbl.A1 (2014) (summarizing PGR, IPR, and CBMR).

18. AIA sec. 7(a)(1), § 6, 125 Stat. at 313 (establishing PTAB).

19. *Id.* sec. 6(d), § 321(b), 125 Stat. at 306 (allowing subject-matter eligibility challenges for PGR); *id.* sec. 18(a)(1), 125 Stat. at 329–30 (permitting challenges available at PGR to be brought during CBMR).

20. *Id.* sec. 6(a), § 311(b), 125 Stat. at 299 (limiting scope of IPR).

21. This Note will refer to the availability of subject-matter eligibility challenges at PGR but its exclusion from IPR as the “IPR–PGR dichotomy” or, in some cases, simply as the “dichotomy.”

22. See, e.g., Yasser El-Gamal, Ehab M. Samuel & Peter D. Siddoway, *The New Battlefield: One Year of Inter Partes Review Under the America Invents Act*, 42 *AIPLA Q.J.* 39, 42 n.8 (2014) (discussing scope of review of PGR and IPR when introducing post-grant proceedings); Tamimi, *supra* note 17, app. at 642–43 tbl.A1 (noting IPR–PGR dichotomy while summarizing post-grant proceedings).

challenges and grapples with its consequences. Finally, Part III proposes potential solutions to the more adverse consequences that the dichotomy triggers.

## I. THE HISTORY OF SUBJECT-MATTER ELIGIBILITY CLAIMS

Although the Patent Act defines four types of inventions and discoveries that qualify as patentable, courts have explicitly created three judicial exceptions. This Part surveys the evolution of the judicial exceptions, with particular focus on the effect of recent Supreme Court jurisprudence. Section I.A walks through the origins of the judicial exceptions. Section I.B then examines four recent Supreme Court decisions concerning subject-matter eligibility and considers whether they have clarified the boundaries of the judicial exceptions. Finally, section I.C addresses Congress's response to these issues when enacting the AIA.

### A. *The Origins of the Judicial Exceptions*

A basic tenet of patent law is that inventions must be useful, novel, and nonobvious in order to obtain protection.<sup>23</sup> Prior to even reaching these considerations, however, an invention must pass the first obstacle of patent eligibility—that is, it must encompass patentable subject matter.<sup>24</sup> Section 101 of the Patent Act governs this requirement by providing, “Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor . . . .”<sup>25</sup> As earlier noted, courts have long read into § 101 “an important implicit exception. ‘[L]aws of nature, natural phenomena, and abstract ideas’ are not patentable.”<sup>26</sup>

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23. See Michael Risch, *Everything Is Patentable*, 75 *Tenn. L. Rev.* 591, 651 (2008) (“The primary application of patent law is to determine whether a new technology is useful, novel, and nonobvious . . .”). Each of these three prongs has been statutorily defined. See 35 U.S.C. § 101 (2012) (noting inventions worthy of protection are ones that are useful); *id.* § 102 (describing conditions for meeting novelty requirement); *id.* § 103 (“A patent for a claimed invention may not be obtained . . . if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious . . .”).

24. See *Bilski v. Kappos*, 130 S. Ct. 3218, 3225 (2010) (labeling patent-eligibility inquiry “threshold test”); *Parker v. Flook*, 437 U.S. 584, 593 (1978) (“The obligation to determine what type of discovery is sought to be patented must precede the determination of whether that discovery is, in fact, new or obvious.”).

25. 35 U.S.C. § 101. These words echo Thomas Jefferson’s conception of patentable subject matter, as expressed in the Patent Act of 1793. See *Diamond v. Chakrabarty*, 447 U.S. 303, 308–09 (1980) (noting Congress largely “left Jefferson’s language intact” when enacting 1952 Patent Act).

26. *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1293 (2012) (alteration in *Mayo*) (quoting *Diamond v. Diehr*, 450 U.S. 175, 185 (1981)).

1. *Policy Underpinnings of the Judicial Exceptions.* — Patent protection is authorized by the Constitution, which empowers Congress “[t]o promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.”<sup>27</sup> Patent laws seek to accomplish this laudable progress by granting patent holders the right to exclude others from access to protected inventions, thus providing an incentive to inventive activity.<sup>28</sup> However, that right must be balanced with recognition that exclusionary rights impede competition.<sup>29</sup> After all, “imitation and refinement through imitation are both necessary to invention itself and are the very lifeblood of a competitive economy.”<sup>30</sup>

Each of the judicial exceptions grows out of, and reflects, the concern that overly broad rewards may unduly preempt the vital work of others. Thus, the Supreme Court asserted that allowing patents on “basic tools of scientific and technological work’ . . . might tend to impede innovation more than it would tend to promote it.”<sup>31</sup> As a result, no matter how revolutionary discoveries may appear—or how much exertion one expends in the process—the foundations of the American patent system dictate that laws of nature, natural phenomena, and abstract ideas should be left to the public domain for the benefit of scientific progress.<sup>32</sup> But this limitation must also be well defined. As the Court noted, “too broad an interpretation of this exclusionary principle could eviscerate patent law. For all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.”<sup>33</sup> Examining the precedent establishing and defining the judicial exceptions is thereby a useful exercise in understanding their scope.

2. *Establishing the Judicial Exceptions: Early Jurisprudence.* — The genesis of the judicial exceptions is evident throughout early patent cases, which determined that principles, abstract ideas, scientific truths, and mathematical formulae are not eligible for patent protection.<sup>34</sup> In

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27. U.S. Const. art. I, § 8, cl. 8.

28. See *Chakrabarty*, 447 U.S. at 307 (noting Congress grants patents “as an incentive for . . . inventiveness and research efforts”); cf. *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 480 (1974) (“The productive effort thereby fostered [by patent law] will have a positive effect on society through the introduction of new products and processes of manufacture into the economy, and the emanations by way of increased employment and better lives for our citizens.”).

29. *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 146 (1989).

30. *Id.*

31. *Mayo*, 132 S. Ct. at 1293 (quoting *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972)).

32. See *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2117–18 (2013) (finding neither “groundbreaking, innovative, or even brilliant discovery” nor “extensive effort alone” satisfies § 101).

33. *Mayo*, 132 S. Ct. at 1293.

34. See *MacKay Radio & Tel. Co. v. Radio Corp. of Am.*, 306 U.S. 86, 94 (1939) (“[S]cientific truth, or the mathematical expression of it, is not [a] patentable

1948, the Supreme Court stated: “He who discovers a hitherto unknown phenomenon of nature has no claim to a monopoly of it which the law recognizes. If there is to be invention from such a discovery, it must come from the *application* of the law of nature to a new and useful end.”<sup>35</sup>

In the 1970s, the Supreme Court began wrestling with the patentability of computer programs using mathematical formulae and whether such programs fell within the abstract ideas exception.<sup>36</sup> It tackled the issue three times from 1972–1981.<sup>37</sup> Through this trilogy of cases, the Court determined that a mathematical algorithm itself was an unpatentable abstract idea.<sup>38</sup> If, however, a mathematical formula is used as part of an industrial process to “transform[] or reduc[e] an article to a different state or thing,” then it is patent eligible.<sup>39</sup> Over time, the “machine-or-transformation test” secured the notion that an abstract idea or law of nature is eligible for patent protection when used in a process if it is either sufficiently linked to a machine or transforms an object.<sup>40</sup> This trilogy of cases, however, did not represent the end of Supreme Court jurisprudence on the issue of subject-matter eligibility.

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invention . . . .”); *O’Reilly v. Morse*, 56 U.S. (15 How.) 62, 112–21 (1854) (noting abstract ideas are not patentable); *Le Roy v. Tatham*, 55 U.S. (14 How.) 156, 174–75 (1853) (“It is admitted, that a principle is not patentable. A principle, in the abstract, is a fundamental truth; an original cause; a motive; these cannot be patented, as no one can claim in either of them an exclusive right.”).

35. *Funk Bros. Seed Co. v. Kalo Inoculant Co.*, 333 U.S. 127, 130 (1948) (emphasis added).

36. Note that the Supreme Court did not focus § 101 jurisprudence, which governs the judicial exceptions, solely on mathematical formulae around this time period. The Court also delved into subject-matter eligibility’s reach with respect to biotechnology. See *Diamond v. Chakrabarty*, 447 U.S. 303, 305, 310 (1980) (determining bacterium genetically engineered to break down crude oil was “not nature’s handiwork, but [inventor’s] own”).

37. See *Diamond v. Diehr*, 450 U.S. 175, 192–93 (1981) (finding patent application for method of curing rubber was not “attempt to patent a mathematical formula, but rather . . . an industrial process”); *Parker v. Flook*, 437 U.S. 584, 594–95 (1978) (denying patent protection to method of updating alarm limits during catalytic conversion processes); *Gottschalk v. Benson*, 409 U.S. 63, 71–72 (1972) (holding patent for method for converting binary-coded decimal numerals into pure binary numerals would “in practical effect . . . be a patent on the algorithm itself”).

38. See, e.g., *Benson*, 409 U.S. at 71–72 (invalidating patent application as it “would wholly pre-empt the mathematical formula”).

39. *Diehr*, 450 U.S. at 192. A method for curing rubber that happens to utilize a mathematical formula, for example, is a “function which the patent laws were designed to protect.” *Id.* at 192–93. But see *Flook*, 437 U.S. at 594 (finding patent invalid not only on basis of using algorithm but also because no “inventive concept” existed in implementing formula).

40. Stefania Fusco, Perspectives, *Is In re Bilski a Déjà Vu?*, 2009 Stan. Tech. L. Rev. ¶ 1, ¶ 2, <https://journals.law.stanford.edu/sites/default/files/stanford-technology-law-review-stlr/online/fusco-bilski-deja-vu.pdf> [<http://perma.cc/EX3R-KZUY>]. The origins of this test are from the proceedings in *Benson*, whereby the government asked the court to explicitly adopt the machine-or-transformation test as the necessary test. See Reply Brief for the Petitioner at 9, *Benson*, 409 U.S. 63 (No. 71-485), 1972 WL 136228, at \*6 (“[W]e

B. *Supreme Court Activism: The Effect of Recent Judicial Exception Jurisprudence*

For a time after the 1970s trilogy, the Supreme Court seemed content to leave defining the boundaries of the judicial exceptions to the Federal Circuit.<sup>41</sup> Then, “[a]fter almost thirty years of silence on the topic,”<sup>42</sup> the Supreme Court again focused its attention on § 101—and has yet to stop. But despite the existence of this new precedent, ambiguity continues to surround the judicial exceptions.

1. *Four Cases in Five Years: The Supreme Court Reconsiders Subject-Matter Eligibility.* — The Supreme Court first reexamined subject-matter eligibility in *Bilski v. Kappos*, when it considered an application for a business method patent describing a process for “protect[ing] against the risk of price fluctuations” in the energy market.<sup>43</sup> Here, the Court addressed two separate issues: (1) whether business method patents, as a general matter, are patent eligible under § 101 and (2) whether the invention at issue was a patentable process.<sup>44</sup> The Court answered the first question in the affirmative, declining to create a categorical exception for business methods.<sup>45</sup> Then, rather than make a broad pronouncement on the limits of § 101’s scope, the Court reached and decided the second question on narrower grounds, holding the specific invention at issue invalid for covering the abstract concept of hedging—a long-standing financial practice of protecting against risk.<sup>46</sup>

Two years later, in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, the Supreme Court examined the validity of a patent on a method for determining the correct dose of a potentially toxic drug

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submit that the cases follow such a rule—implicitly or explicitly—and that they cannot be rationalized otherwise.”).

41. In 1998, for example, instead of the machine-or-transformation test, the Federal Circuit required that a law of nature “produce[] ‘a useful, concrete and tangible result’” in order to qualify for patent protection. *State St. Bank & Tr. Co. v. Signature Fin. Grp., Inc.*, 149 F.3d 1368, 1373 (Fed. Cir. 1998), abrogated by *In re Bilski*, 545 F.3d 943 (Fed. Cir. 2008) (en banc). Ten years later, however, the Federal Circuit readopted the machine-or-transformation test. See *In re Bilski*, 545 F.3d at 960 (“[We] reaffirm that the machine-or-transformation test outlined by the Supreme Court is the proper test to apply.”), aff’d on other grounds sub nom. *Bilski v. Kappos*, 130 S. Ct. 3218 (2010). But see *infra* notes 58–59 and accompanying text (noting Supreme Court did not adopt machine-or-transformation test as bright-line rule in response to *In re Bilski*).

42. William J. Casey, Note, *The Sum of the Parts Is Greater than the Whole: Why Courts Determining Subject Matter Eligibility Should Analyze the Patent-Eligible and Unpatentable Portions of the Claim Separately Instead of Treating the Claim as a Whole*, 5 *Hastings Sci. & Tech. L.J.* 107, 107 (2013).

43. 130 S. Ct. at 3223. In *Bilski*, the Court refers to business method patents as “methods of doing business,” although it acknowledges that no explicit definition exists. *Id.* at 3228.

44. See *id.* at 3228–31 (addressing both questions).

45. See *id.* at 3228–29 (declining to “adopt[] categorical rules that might have wide-ranging and unforeseen impacts”).

46. *Id.* at 3231.



used to treat autoimmune diseases.<sup>47</sup> The method linked the desired dose to the presence and amount of the drug's metabolites, the natural result of the body's breaking down the drug in the patient's blood.<sup>48</sup> The Court therefore deemed these relationships a "natural law."<sup>49</sup> Moreover, the patent failed to apply an "'inventive concept[]' sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the natural law itself."<sup>50</sup>

Shortly thereafter, in *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, the Supreme Court scrutinized a patent on genes that, if mutated, can heighten the risk of breast and ovarian cancer.<sup>51</sup> Unlike the earlier cases, all of which involved claims to processes, this claim was to composition of matter. Also, unlike *Bilski*, where the validity of the issue was decided narrowly, here the Court handed down a potentially far-reaching decision regarding the subject-matter eligibility of genes generally.<sup>52</sup> According to the opinion, these patents simply recite a genetic sequence whose "location and order . . . existed in nature" before their discovery; consequently, naturally occurring genes do not qualify for patent protection under the judicial exceptions.<sup>53</sup>

Finally, in *Alice Corp. Pty. v. CLS Bank International*, the Supreme Court held that a method of using a computer to mitigate settlement risk failed to claim patentable subject matter.<sup>54</sup> The Court determined that the patents at issue attempted to claim the unpatentable abstract idea of intermediated settlement and that the application of a computer was insufficiently "transformative" to make it patent eligible under the machine-or-transformation test.<sup>55</sup> With *Alice*, the Court invalidated the

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47. 132 S. Ct. 1289, 1294 (2012).

48. The Court referred here to the concept of metabolism. See *id.* ("The claims purport to apply natural laws describing the relationships between the concentration in the blood of . . . [drug] metabolites and the likelihood that the drug dosage will be ineffective or induce harmful side-effects.").

49. See *id.* at 1296–97 (describing why patents at issue "set forth laws of nature").

50. *Id.* at 1294 (quoting *Parker v. Flook*, 437 U.S. 584, 594 (1978)). The Court explained that the method did nothing more than take a law of nature and add "additional steps consist[ing] of well-understood, routine, conventional activity already engaged in by the scientific community." *Id.* at 1297–98.

51. 133 S. Ct. 2107, 2110–11 (2013).

52. See *id.* at 2120 ("We . . . hold that genes and the information they encode are not patent eligible under § 101 simply because they have been isolated from the surrounding genetic material.").

53. *Id.* at 2116–19. The Court did, however, distinguish as patent eligible man-made genetic sequences with non-coding regions of genes removed, also known as complementary DNA (cDNA). See *id.* at 2119 ("[T]he lab technician unquestionably creates something new when cDNA is made.").

54. See 134 S. Ct. 2347, 2352, 2357 (2014) (defining settlement risk as "risk that only one party to an agreed-upon financial exchange will satisfy its obligation").

55. The notion of "intermediated settlement" was defined by the Court as "the use of a third party to mitigate settlement risk." *Id.* at 2356. The Court then went on to state: "[T]he claims at issue amount to 'nothing significantly more' than an instruction to apply

patent at issue in each of the four subject-matter eligibility cases it considered post-2010. At minimum, this suggests what qualified under the judicial exceptions five years ago was unclear. Whether such doubt persists today is another question.

2. *Ambiguity and Scholarship in the Wake of Bilski, Mayo, Myriad, and Alice.* — Although the Supreme Court rekindled an interest in subject-matter eligibility questions, the extent of § 101's reach remains uncertain. Commentators have continued to note ambiguities surrounding the precise boundaries of the judicial exceptions.<sup>56</sup> And the Justices of the Supreme Court have as well.<sup>57</sup>

Moreover, the debate does not end with determining precisely what qualifies under the judicial exceptions. The lack of a definitive test to determine when an invention incorporating a law of nature, a natural phenomenon, or an abstract idea is nonetheless eligible for patent protection continues to be problematic. Though the Federal Circuit attempted to impose the machine-or-transformation test as the categorical analysis,<sup>58</sup> the Supreme Court shied away from such a bright-line rule.<sup>59</sup> But the Court then failed to clarify the appropriate test to apply.<sup>60</sup> In apparent recognition of the ambiguity surrounding when a

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the abstract idea of intermediated settlement using some unspecified, generic computer." Id. at 2360 (quoting *Mayo*, 132 S. Ct. at 1298).

56. See, e.g., Stephen Pulley, Comment, An "Exclusive" Application of an Abstract Idea: Clarification of Patent-Eligible Subject Matter After *Bilski v. Kappos*, 2011 BYU L. Rev. 1223, 1225 ("Because the Supreme Court has denied bright-line rules for patent eligibility, it may be impossible to answer all the questions in this realm with perfect clarity." (footnote omitted)); Eric J. Rogers, Note, Patenting Medical Diagnostics Methods: The Mort Strikes Back, 17 J. Tech. L. & Pol'y 111, 189–90 (2012) ("[T]he Court's most recent decision regarding subject-matter eligibility, *Mayo* and *Bilski*, failed to provide a clear legal standard for determining when a patent claim has crossed the line into an abstract idea or law-of-nature exception."); Bryan Wisecup, Comments and Casenotes, *Mayo v. Prometheus*: Reorganizing the Toolbox for Patent Eligible Subject Matter and Uses of Natural Laws, 81 U. Cin. L. Rev. 1651, 1668 (2013) (criticizing *Mayo* decision for failing to "add clarity to the boundary of subject matter eligibility for laws of nature" and noting "[i]nventors and practitioners are still not able to distinguish between what is and is not permissible incorporation of a law of nature").

57. For example, though concurring in the judgment in *Bilski v. Kappos*, Justice Stevens admonished the Court for "never provid[ing] a satisfying account of what constitutes an unpatentable abstract idea." 130 S. Ct. 3218, 3236 (2010) (Stevens, J., concurring in the judgment). Indeed, Justices' criticism of the judicial exceptions is nothing new, preceding even the 1952 Patent Act. See *Funk Bros. Seed Co. v. Kalo Inoculant Co.*, 333 U.S. 127, 134–35 (1948) (Frankfurter, J., concurring) ("It only confuses the issue, however, to introduce such terms as 'the work of nature' and the 'laws of nature.' For these are vague and malleable terms infected with too much ambiguity and equivocation.").

58. In *re Bilski*, 545 F.3d 943, 959–60 (Fed. Cir. 2008) (en banc), aff'd on other grounds sub nom. *Bilski*, 130 S. Ct. 3218.

59. In *Bilski*, the Court found that while the machine-or-transformation test may provide an "important clue" to the analysis it was "not the sole test." 130 S. Ct. at 3227.

60. Following *Bilski*, the Supreme Court has seemingly invoked other tests. For example, the decision in *Mayo* appeared to apply an "obviousness-plus" analysis, whereby

law of nature merits exclusionary rights, the PTO released memoranda after each case to aid examiners considering subject-matter eligibility issues.<sup>61</sup>

Scholars have suggested that the judicial exceptions are a moot point, as those patents falling outside § 101's purview would also be invalid for lack of novelty or for being obvious.<sup>62</sup> But this approach does not take into account the efficiency benefits of using subject-matter eligibility as a "threshold test," including: "reduced costs of administration, reduced overall burdens on the patent system, and clearer signals that direct investment and innovation to activities that most need patent-system incentives while better protecting the public domain of science, nature, and ideas from encroachment."<sup>63</sup> Further, this approach would make the judicial exceptions a "dead letter," and is "therefore not consistent with prior law."<sup>64</sup> For better or worse, the judicial exceptions have garnered significant weight in challenging a patent's validity and must therefore receive due attention in the patent-litigation context.

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the Court was searching for an "inventive concept" that did more than "simply state the law of nature while adding the words 'apply it.'" *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1294 (2012) (quoting *Parker v. Flook*, 437 U.S. 584, 594 (1978)); see also P. Andrew Riley, Jonathan R.K. Stroud & Jeffrey Totten, *The Surprising Breadth of Post-Grant Review for Covered-Business-Method Patents: A New Way to Challenge Patent Claims*, 15 *Colum. Sci. & Tech. L. Rev.* 235, 248 (2014) (naming test applied in *Mayo*).

61. See Memorandum from Robert W. Bahr, Acting Assoc. Comm'r for Patent Examination Policy, to Patent Examining Corps (July 27, 2010), [http://www.uspto.gov/patents/law/exam/bilski\\_guidance\\_27jul2010.pdf](http://www.uspto.gov/patents/law/exam/bilski_guidance_27jul2010.pdf) [<http://perma.cc/NAC2-GHM3>] (providing examiners with guidance after *Bilski*); Memorandum from Andrew H. Hirshfeld, Deputy Comm'r for Patent Examination Policy, to Patent Examining Corps (June 25, 2014), [http://www.uspto.gov/patents/announce/alice\\_pec\\_25jun2014.pdf](http://www.uspto.gov/patents/announce/alice_pec_25jun2014.pdf) [<http://perma.cc/4E4T-5CPN>] (same for *Alice*); Memorandum from Andrew H. Hirshfeld, Deputy Comm'r for Patent Examination Policy, to Patent Examining Corps (Mar. 4, 2014), [http://www.uspto.gov/patents/law/exam/myriad-mayo\\_guidance.pdf](http://www.uspto.gov/patents/law/exam/myriad-mayo_guidance.pdf) [<http://perma.cc/JTF6-UW9P>] (same for *Myriad*); Memorandum from Andrew H. Hirshfeld, Deputy Comm'r for Patent Examination Policy, to Patent Examining Corps (July 3, 2012), [http://www.uspto.gov/patents/law/exam/2012\\_interim\\_guidance.pdf](http://www.uspto.gov/patents/law/exam/2012_interim_guidance.pdf) [<http://perma.cc/L7EG-ESRA>] (same for *Mayo*).

62. See *Mayo*, 132 S. Ct. at 1303 (noting United States, as amicus curiae, argued provisions other than § 101 could suffice to screen for ineligible patents); Joshua D. Sarnoff, *Patent-Eligible Inventions After Bilski: History and Theory*, 63 *Hastings L.J.* 53, 106 (2011) ("[S]ection 103 necessarily should also render ineligible uncreative applications unpatentable as obvious."). Judges have also pointed out cases decided on subject-matter eligibility grounds could have been examined on novelty or nonobviousness grounds rather than subject-matter eligibility. See *In re Bilski*, 545 F.3d at 995–97 (Newman, J., dissenting) (noting validity of patent application at issue should be reached on §§ 102, 103, and 112).

63. Sarnoff, *supra* note 62, at 106–24.

64. *Mayo*, 132 S. Ct. at 1303.

### C. *Subject-Matter Eligibility Challenges Under the AIA*

As evidenced by recent Supreme Court cases, challenging a patent on the basis of a lack of patentable subject matter can be an effective means of invalidating a patent.<sup>65</sup> Of course, courts will not strike down every patent facing § 101 scrutiny.<sup>66</sup> But in the wake of the recent Supreme Court challenges, subject-matter eligibility challenges may become an increasing trend.<sup>67</sup> Whether or not the drafters of AIA anticipated this development, the statute's changes implicate subject-matter eligibility challenges.

1. *Pre-AIA Subject-Matter Eligibility Challenges.* — In creating the AIA, legislators sought to revamp mechanisms of resolving post-grant patent validity questions, especially where the crux of the invalidity claim concerns subject-matter eligibility.<sup>68</sup> Even before the enactment of the AIA, however, third parties wishing to contest a patent's legitimacy were not necessarily confined to the courtroom. Specifically, there were two—albeit limited—means of proceeding through the PTO rather than the courts: *ex parte* and *inter partes* reexamination.<sup>69</sup> *Ex parte* reexamination was first enacted in 1980,<sup>70</sup> while *inter partes* reexamina-

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65. See *supra* section I.B.1 (discussing *Bilski*, *Mayo*, *Myriad*, and *Alice*).

66. Kevin J. McNamee, A View from the Trenches: Section 101 Patent Eligibility Challenges in the Post-*Bilski* Trial Courts, NYIPLA Bull., Dec. 2013/Jan. 2014, at 13, 14, <http://www.nyipla.org/images/nyipla/Documents/Bulletin/2014/Dec2013Jan2014Bulletin.pdf> [<http://perma.cc/F4RX-U4HQ>] (noting fifty-six percent of district court and International Trade Commission proceedings upheld validity of patent faced with § 101 challenge). The susceptibility of patents to § 101 challenges, however, may depend on the type of art they comprise. See *id.* (“[B]usiness method patents and medical diagnostic/treatment patents remain far more vulnerable to § 101 challenges than more traditional, technology-based patents . . .”).

67. At least one commentator has expressed this concern, noting recent Supreme Court cases “might make section 101 challenges the ‘next toss-in’ for every defendant’s response to patent infringement suit involving any patented process and ‘swamp’ the lower courts with section 101 jurisprudence.” Rogers, *supra* note 56, at 188 (quoting *MySpace, Inc. v. GraphOn Corp.*, No. 2011-1149, 2012 WL 716435, at \*6–8 (Fed. Cir. Mar. 2, 2012)).

68. See discussion *infra* section I.C.2 (detailing impetus for revamping post-grant practices); see also *supra* notes 16–17 and accompanying text (introducing new administrative proceedings for challenging patent after it has been issued).

69. For excellent background on reexamination proceedings, see generally Martin J. Adelman, Randall R. Rader & Gordon P. Klacnik, *Patent Law in a Nutshell* 43–45 (2008) (detailing pre-AIA post-grant procedures); Oblon Spivak, *supra* note 17, § 1:2.1, at 8–11 (describing reexamination practices within broader discussion of evolution of post-grant practices before PTO); J. Steven Baughman, *Reexamining Reexaminations: A Fresh Look at the Ex Parte and Inter Partes Mechanisms for Reviewing Issued Patents*, 89 *J. Pat. & Trademark Off. Soc’y* 349 (2007) (discussing reexamination proceedings in detail).

70. See Act of Dec. 12, 1980, Pub. L. No. 96-517, §§ 301–307, 94 Stat. 3015, 3015–17 (codified as amended at 35 U.S.C. §§ 301–307 (2012)) (enacting provisions for *ex parte* reexamination).

tion came into effect nearly two decades later.<sup>71</sup> Though both processes allowed challenges on the same limited substantive grounds, they differed procedurally. Under *ex parte* reexamination, patent owners, as well as third parties,<sup>72</sup> were allowed to request that the PTO initiate proceedings.<sup>73</sup> But once reexamination began, only patent owners were entitled to communicate with the PTO; this essentially left third parties out of the process.<sup>74</sup> By contrast, in *inter partes* reexamination, only third parties were allowed to solicit the PTO,<sup>75</sup> and they “enjoy[ed] more ongoing participation”—including the right to respond to decisions from the PTO.<sup>76</sup>

Both procedures were vehicles for the PTO to reconsider—that is, reexamine—a patent’s validity. For a reexamination request to be approved, however, a “substantial new question of patentability” had to be raised by a particular kind of prior art, namely patents and printed publications.<sup>77</sup> Consequently, reexamination procedures were restricted to questions of novelty and nonobviousness.<sup>78</sup> This restriction forced those who wished to bring a challenge based on a patent’s lack of patentable subject matter to litigate their disputes—an aspect of patent law Congress sought to change when enacting the AIA.<sup>79</sup>

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71. See American Inventors Protection Act of 1999, Pub. L. No. 106-113, § 4604, 113 Stat. 1501A-552, 1501A-567 to -570 (enacting provisions for *inter partes* reexamination), amended by AIA, Pub. L. No. 112-29, sec. 6(a), §§ 311–318, 125 Stat. 284, 299–304 (2011).

72. This Note will use the term “third-party challengers” to refer to those seeking to invalidate a patent either on an *ex-post* or *ex-ante* basis.

73. See 35 U.S.C. § 301 (noting any person may solicit PTO to initiate *ex parte* reexamination proceedings).

74. See *id.* § 305 (stating *ex parte* reexamination proceedings should be conducted “according to the procedures established for initial examination,” while not providing for any third-party participation); see also Baughman, *supra* note 69, at 352 (remarking “only the patent owner communicat[es] with the USPTO examiner” in *ex parte* reexaminations).

75. 35 U.S.C. § 311 (2006), amended by 35 U.S.C. § 311 (2012).

76. Baughman, *supra* note 69, at 352; see also 35 U.S.C. § 314(b)(2) (2006) (allowing third parties to file written comments), amended by 35 U.S.C. § 314 (2012).

77. See 35 U.S.C. §§ 301–303 (detailing when *ex parte* reexamination is proper); 35 U.S.C. §§ 311–312 (2006) (same for *inter partes* reexamination), amended by 35 U.S.C. §§ 311–312 (2012).

78. See Manzo, *supra* note 10, § 16.1, at 294 (“This left other types of prior art or other types of challenges, *e.g.*, Section 101 and 112 issues, to be dealt with by courts or administrative agencies where patents are enforced.”); Oblon Spivak, *supra* note 17, § 1:2.1, at 8–9 (noting reexamination procedures did not allow § 101 aspects to be addressed).

79. “The legislative history of the AIA also makes clear that Congress intended the PTAB to consider challenges brought under § 101 in post-grant reviews.” David Kappos, PTAB and Patentability Challenges, U.S. Patent & Trademark Office Dirs. Forum: A Blog from USPTO’s Leadership (Sept. 24, 2012, 4:44 PM), [http://www.uspto.gov/blog/director/entry/ptab\\_and\\_patentability\\_challenges](http://www.uspto.gov/blog/director/entry/ptab_and_patentability_challenges) [<http://perma.cc/FR42-B8TU>] [hereinafter Kappos, Challenges].

2. *Subject-Eligibility Challenges in the Wake of the AIA.* — Though *ex parte* and *inter partes* reexamination resolved some patent-validity claims, many critics believed these proceedings were not being utilized to their full potential.<sup>80</sup> In response, Congress sought to develop post-grant procedures that would truly be efficient and cost-effective substitutes for litigation.<sup>81</sup> Over the course of several years, Congress proposed various iterations, some of which extended the scope of administrative review to permit comprehensive administrative challenges throughout the life of the patent.<sup>82</sup> However, support for this approach waned, and Congress eventually embraced substantially more limited post-grant proceedings.<sup>83</sup>

The AIA ultimately instituted three new PTO-administered post-grant proceedings: post-grant review, *inter partes* review, and covered business method patent review.<sup>84</sup> Third parties can bring a PGR petition only for patents first issued on applications filed after the AIA's effective date<sup>85</sup> and must do so within a nine-month window after the patent is granted.<sup>86</sup> After this nine-month period expires, third parties may challenge a patent through IPR.<sup>87</sup> While PGR is fairly narrow in scope, at IPR all patents can be challenged—including those filed before the institution of the AIA.<sup>88</sup> The final type of post-grant practice, CBMR, is a transitional program that present legislation will sunset in 2020.<sup>89</sup> CBMR was enacted in response to the Supreme Court's decision in *Bilski*, which

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80. See Oblon Spivak, *supra* note 17, § 1:2.1, at 10 (“The fact that *inter partes* reexamination was not being used as a true alternative to litigation was a significant motivation underlying the call for the creation of a new post-grant review proceeding.”).

81. These purposes are evident in the legislative history of the AIA. For example, the American Intellectual Property Association (AIPLA) testified on the expense and length of patent litigation before Congress in 2004. See Patent Quality Improvement: Post-Grant Opposition: Hearing Before the Subcomm. on Courts, the Internet, and Intellectual Prop. of the H. Comm. on the Judiciary, 108th Cong. 29 (2004) (statement of Michael R. Kirk, Executive Director, American Intellectual Property Law Association (AIPLA)) (“Litigation is very expensive . . . , and final decision is not reached for . . . 2 to 3 years.”); cf. Tamimi, *supra* note 17, at 591 & n.26 (noting AIPLA testimony, along with other congressional hearings held with respect to patent reform).

82. See Oblon Spivak, *supra* note 17, § 1:2.2, at 12–15 (describing various approaches proposed legislation took to key issues, including timing and scope of review); Joe Matal, A Guide to the Legislative History of the America Invents Act: Part II of II, 21 Fed. Cir. B.J. 539, 600–04 (2012) [hereinafter Matal, Guide Part II] (providing history of post-grant procedure legislation).

83. Matal, Guide Part II, *supra* note 82, at 603–04 (noting PTO backtracked on initial support of broad post-grant proceedings and Congress ultimately acquiesced to more limited approach).

84. See *supra* note 17 (noting comprehensive background material on PGR, IPR, and CBMR).

85. AIA, Pub. L. No. 112-29, sec. 6(f)(2)(A), 125 Stat. 284, 311 (2011).

86. 35 U.S.C. § 321(c) (2012).

87. *Id.* § 311(c); see also 37 C.F.R. § 42.102(a)(1) (2014) (noting time of filing).

88. AIA sec. 6(c)(2)(A), 125 Stat. at 304.

89. *Id.* sec. 18(a)(3)(A), 125 Stat. at 330; see also Tamimi, *supra* note 17, app. at 643 tbl.A1 (noting sunset provision of CBMR).

made clear the dubious validity of the “flood of business method patent filings at the PTO” and established a faster and cheaper path to resolving issues concerning them.<sup>90</sup> CBMR is only available to third parties who have been “sued” or “charged with” infringing a business method patent, defined as one related to financial services.<sup>91</sup>

In creating these mechanisms, Congress rejected an “examination-based model of reexamination” in favor of a more “adjudicative model . . . , where the third-party requester has the burden of proof.”<sup>92</sup> Post-grant proceedings are now conducted in a trial-like setting before a three-member panel of the Patent Trial and Appeal Board.<sup>93</sup> The PTAB then issues a written decision no later than one year after the review procedures are initiated.<sup>94</sup> Importantly, these decisions, if unfavorable to petitioners, subsequently estop them and their privies from later asserting invalidity “on any ground that the petitioner raised or reasonably could have raised” during review.<sup>95</sup>

Although PGR, IPR, and CBMR either overlap or diverge in a number of other procedural and substantive respects, most of these interactions are beyond the scope of this Note.<sup>96</sup> Indeed, this Note focuses on the fact that PGR and CBMR allow subject-matter eligibility challenges as grounds for review,<sup>97</sup> while a party may only initiate IPR to

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90. See Tamimi, *supra* note 17, at 592–93 (discussing adoption of CBMR and remarking on contentiousness of debate).

91. AIA sec. 18(a)(1)(B), (d)(1), 125 Stat. at 330–31; see also 37 C.F.R. § 42.302(a) (“Charged with infringement means a real and substantial controversy regarding infringement of a covered business method patent exists such that the petitioner would have standing to bring a declaratory judgment action in Federal court.”).

92. Oblon Spivak, *supra* note 17, § 1:2.1, at 10 (footnote omitted).

93. See 35 U.S.C. § 6(b)–(c) (2012) (providing PTAB “shall . . . conduct inter partes reviews and post-grant reviews”); 37 C.F.R. § 42.300 (noting CBMR is trial before PTAB). Proceedings will include filing of documents, conducting discovery, taking witnesses, and even oral hearings. See *id.* §§ 42.1–.80 (detailing trial practice and procedure for PTAB).

94. This timeline may be extended by six months if good cause is shown. See 35 U.S.C. § 316(a)(11) (providing timeline for IPR); *id.* § 326(a)(11) (same for PGR).

95. For IPR and PGR, “reasonably could have raised” extends to both any subsequent review in front of the PTO and any civil proceeding. 35 U.S.C. §§ 315(e), 325(e). For CBMR, however, estoppel for civil actions is somewhat narrower, limited to any ground that was *actually* raised before the PTO. AIA sec. 18(a)(1)(D), 125 Stat. at 330.

96. See Tamimi, *supra* note 17, app. at 642–43 tbl.A1, for a comparison of all three post-grant proceedings in useful table format.

97. See 35 U.S.C. § 321(b) (allowing claims that could be raised under “paragraph (2) or (3) of section 282(b) (relating to invalidity of the patent or any claim)” for PGR); AIA sec. 18(a)(1), 125 Stat. at 329–30 (implementing claim limitations of PGR to CBMR). These cited sections do not explicitly list § 101. Subsequent case law and then-director of the PTO David Kappos clarified that this provision of the AIA includes challenges based on subject-matter eligibility. See *SAP Am., Inc. v. Versata Dev. Grp., Inc.*, No. CBM2012-00001 (MPT), 2013 WL 5947661, at \*15–17 (P.T.A.B. Jan. 9, 2013) (determining § 101 was permissible grounds for challenging at CBMR); Kappos, *Challenges*, *supra* note 79 (noting PTO’s position subject-matter eligibility challenges can be brought at PGR and CBMR).

hear challenges based on novelty and nonobviousness.<sup>98</sup> In practical effect, for the first nine months following patent issuance, third-party challengers are free to bring nearly any challenge based on patent validity.<sup>99</sup> Upon passage of this nine-month barrier, however, third parties are limited with respect to what challenges they can bring before the PTO.<sup>100</sup> As a result, if a third party wishes to challenge a patent's validity solely on statutory subject-matter grounds, it must proceed through the court system. Part II will explore this dichotomy further by considering the purposes and practical effects of this barrier.

## II. POST-GRANT REVIEW TO INTER PARTES REVIEW: IMPLICATIONS OF A NINE-MONTH BARRIER

For parties wishing to challenge a patent's validity solely on the grounds of statutory subject matter, nine months post-issuance represents a barrier; this is the point at which parties can no longer raise the judicial exceptions before the PTO; instead, they must proceed through the courts.<sup>101</sup> Part II aims to further understand the dichotomy that exists between IPR and PGR for subject-matter eligibility challenges. Section II.A contextualizes the barrier by analyzing the practical timeline of the nine-month limit, comparing and contrasting it to other time restrictions, and examining Congress's decision to include the additional first-to-file restriction. Section II.B then examines the IPR–PGR dichotomy on a more practical level, considering its effect on various parties to patent litigation. Finally, section II.C ponders institutional competence concerns of administrative subject-matter eligibility challenges and questions the effect of the nine-month barrier on patent litigation as a whole.

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Here, it is also important to note that § 101 is not the only type of invalidity challenge that is only available at PGR. For example, for the first nine months of a patent's life, third parties can challenge a patent on the basis of a failure to comply with § 112 of the Patent Act. Cf. 35 U.S.C. § 282(b) (listing § 112 as available defense). Section 112 lays out important specification requirements such as definiteness and adequate written description. *Id.* § 112(a)–(b). Limiting these types of challenges to PGR also has broad implications for patent litigation that merit more in-depth discussion than this Note can provide.

98. 35 U.S.C. § 311(b).

99. This statement leaves CBMR proceedings aside; the nine-month barrier refers to the length of time a third party can request PGR proceedings. *Id.* § 321(b)–(c). The subsequent focus of this Note will be on comparing PGR and IPR.

100. IPR proceedings are limited to nonobviousness and novelty grounds. *Id.* § 311(b).

101. See *supra* section I.C.2 (noting various administrative post-grant challenges instituted in wake of AIA: IPR, PGR, and CBMR).



A. *Contextualizing the Nine-Month Barrier*

A thorough understanding of the implications of the nine-month barrier begins by appropriately framing the IPR–PGR dichotomy. Such an analysis involves comparing and contrasting the nine-month barrier to similar procedural restrictions and then moving beyond the temporal restriction to examine why Congress imposed an additional limitation to the nine-month barrier—limiting it to first-to-file patents. First, however, this Note considers whether subject-matter eligibility challenges before the PTO are as strictly limited as they initially appear.

1. *The Practical Timeline of the Nine-Month Barrier.* — This Note labels the time limit for a third party’s subject-matter eligibility challenge before the PTO a “nine-month barrier,”<sup>102</sup> but the terminology is somewhat misleading if meant to measure the time available to consider a challenge. To be sure, a third-party challenger has only nine months after a patent has issued to file a PGR petition,<sup>103</sup> after which subject-matter eligibility claims are foreclosed.<sup>104</sup> But this nine-month barrier does not realistically represent the amount of time a party has to *consider* challenging a patent’s validity based on subject-matter eligibility. Third parties may only request the PTO institute PGR on a patent that has been granted.<sup>105</sup> But this does not prevent an attentive third party,<sup>106</sup> aware that a patent application is in the pipeline, from preparing in advance to challenge a patent’s validity through PGR.

The statute mandates the PTO maintain patent applications in secret for eighteen months.<sup>107</sup> Most are then disclosed, and curious patent aficionados can freely access both the application and its ongoing prosecution online.<sup>108</sup> As a result, in practical terms, attentive third

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102. See *supra* notes 99–100 and accompanying text (describing post-issuance timeframe to when PGR is no longer available as “nine-month barrier”).

103. 35 U.S.C. § 321(c).

104. *Id.* § 311(b).

105. *Cf. id.* § 321(a) (providing only for review “of the patent”—not application).

106. An attentive third party may include an inventor monitoring applications to ensure they are not precluded from filing a patent on their invention or companies with extensive patent portfolios who keep themselves well apprised of their competitors’ actions. See *id.* § 102(a)(2) (barring patent eligibility if invention has already been described in another patent application); Joseph M. Barich, Pre-Issuance Publication of Pending Applications: Not So Secret Anymore, 2001 U. Ill. J.L. Tech. & Pol’y 415, 421 (“Because the entire prosecution history of the patent application becomes transparent after eighteen months, competitors are now able to monitor the patent efforts of another company in ways that were simply not possible under the previous system.”). For a broader discussion on who might be well placed to immediately challenge a patent’s validity, see *infra* section II.B.

107. 35 U.S.C. § 122(a)–(b).

108. See Patent Full-Text Databases, U.S. Patent & Trademark Office, <http://patft.uspto.gov/> [<http://perma.cc/RD4P-YGMU>] (last modified May 1, 2015) (publishing patent applications); *cf.* 37 C.F.R. § 1.211 (2014) (“Each U.S. national

parties are not limited to a nine-month window when deciding whether to bring a petition for PGR; the period between application publication and patent issuance is also available. Consequently, the amount of time open to third parties varies depending on the length of time the patent takes to issue.

From 2010 to 2014, the average length of time it took to receive a first office action—an initial determination from the examiner either rejecting the patent application or allowing the patent to issue<sup>109</sup>—ranged from 18.2 to 28 months.<sup>110</sup> Moreover, across the same period, the average time from filing until issuance or abandonment of the patent application spanned from 29.1 to 35.3 months.<sup>111</sup> As a result, a patent application will generally be published shortly before the applicant receives her first office action and more than ten months before the application obtains an ultimate resolution. Instead of a nine-month window, therefore, an attentive third party may have over two years<sup>112</sup> to consider the patentability of a potentially problematic patent and to prepare a PGR petition on the basis of a judicial exception.<sup>113</sup>

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application for patent filed in the Office . . . will be published promptly after the expiration of a period of eighteen months from the earliest filing date . . .”).

109. An office action also allows the examiner to indicate to the applicant in writing the reasons for the action. See MPEP § 707 (9th ed. Mar. 2014) (describing examiner office action).

110. 2014 U.S. Pat. & Trademark Off. Performance & Accountability Rep. 30, <http://www.uspto.gov/about/stratplan/ar/USPTOFY2014PAR.pdf> [<http://perma.cc/R69C-7XCV>] [hereinafter U.S. Patent & Trademark Office, Performance].

111. *Id.* Indeed, “fewer than 10% percent of [patents] filed before 2009 are still pending.” Dennis Crouch, Status of US Patent Applications, Patently-O (Oct. 11, 2014), <http://patentlyo.com/patent/2014/10/status-patent-applications.html> [<http://perma.cc/c2E9-42PW>].

112. To illustrate this point, suppose a patent was filed January 1, 2014. Eighteen months later, on July 1, 2015, this patent application will be published. As explained, it may take another eighteen months (a total of thirty-six months from initial filing) for the patent to issue, and then a third-party challenger has an additional nine months to initiate PGR proceedings. Therefore, an attentive third party would theoretically have from July 1, 2015, until October 1, 2017, to consider filing a PGR petition.

113. The assumption that an attentive third party will be able to find relevant applications is not immune from criticism. Mark Chandler of Cisco Systems expressed the high-technology sector’s reservations about the notion that relevant patent applications are easily monitored:

A technology company . . . cannot know at the time a patent is issued . . . whether that patent might become relevant to the company’s business sometime in the future. Indeed, even when a technology business is developing a new device or a new computer program, it often is extraordinarily difficult—notwithstanding the business’s best efforts—to identify all of the existing patents, let alone pending patent applications, that may be relevant to each of the hundreds or even thousands of components that make up that new product.

Perspectives on Patents: Post-Grant Review Procedures and Other Litigation Reforms: Hearing Before the Subcomm. on Intellectual Prop. of the S. Comm. on the Judiciary, 109th Cong. 45 (2006) (statement of Mark Chandler, Senior Vice President and General Counsel, Cisco Systems). Supposing the truth of this assertion, even an attentive third

Accordingly, although a statutorily mandated rule, the barrier's timeline is more flexible in practice.

2. *Subject-Matter Eligibility Challenges and Lessons from Statutes of Limitations.* — Despite the flexibility it affords in practice, the nine-month barrier bears hallmarks of the similarly procedurally restrictive statutes of limitations. Statutes of limitations are designed to establish a specific point in time “at which a party can no longer bring an action or suit in law or equity.”<sup>114</sup> By confining subject-matter eligibility challenges before the PTO to nine months post-issuance, Congress denied parties access to § 101 invalidity claims in a manner that, at least procedurally, mimics statutes of limitations and emphasizes the importance of bringing subject-matter eligibility challenges early.

The policy rationale underlying statutes of limitations is that “it is unjust not to put the adversary on notice to defend within the period of limitation and that the right to be free of stale claims in time comes to prevail over the right to prosecute them.”<sup>115</sup> Encouraging plaintiffs to bring their claims early also promotes judicial efficiency, summarily granting courts leave to avoid confronting “old or stale litigation.”<sup>116</sup> Moreover, such a bright-line rule conveys “stability and consistency” to the parties of a transaction.<sup>117</sup> If they are too strict, however, statutes of limitations prevent “fair, meritorious claims the chance of even being heard.”<sup>118</sup> Thus, mechanisms have developed to soften their effect. As an example, the discovery rule ensures the clock only begins to run if the claim at issue “has been or should have been discovered with reasonable diligence.”<sup>119</sup> Each individual event can also give rise to a new cause of action, thus tolling a statute of limitations.<sup>120</sup>

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party may be hard-pressed to take advantage of the time between publication of the patent application and issuance; all parties are therefore left with nine months.

114. Peter G. Brassard, Comment, Is There a Statute of Limitations for Skiing on Filled Wetlands? Interpreting 28 U.S.C. § 2462 After *United States v. Telluride Co.*, 23 B.C. Envtl. Aff. L. Rev. 885, 887 (1996).

115. *Order of R.R. Telegraphers v. Ry. Express Agency, Inc.*, 321 U.S. 342, 349 (1944); see also David D. Siegel, *New York Practice: Practitioner Treatise Series* § 33, at 43 (5th ed. 1991) (“The Statute of Limitations was enacted to afford protection to defendants against defending stale claims after a reasonable period of time had elapsed during which a person of ordinary diligence would bring an action. The statutes embody an important policy of giving repose to human affairs.” (quoting *Flanagan v. Mount Eden Gen. Hosp.*, 248 N.E.2d 871, 872 (N.Y. 1969), superseded by statute, N.Y. C.P.L.R. 214-a (McKinney 2006), as recognized in *LaBarbera v. N.Y. Eye & Ear Infirmary*, 230 A.D.2d 303, 306 (N.Y. App. Div. 1997))).

116. Brassard, *supra* note 114, at 888.

117. *Id.*

118. Henry G. Miller, *Statute of Limitations: An Immoral Defense?*, N.Y. St. B. Ass'n J., Mar./Apr. 2011, at 24, 25.

119. Joseph Cioffi & James R. Serritella, *When Is It Too Late for Investors to Bring RMBS-Related Claims?*, 130 *Banking L.J.* 813, 814 (2013).

120. See Darin Snyder, Marcus Quintanilla & Michael Myers, *Statute of Limitations and Trade Secret Claims: Some Answers and Some Questions*, *Intell. Prop. & Tech. L.J.*,

In the intellectual property context, only copyright-infringement<sup>121</sup> and trade-secret-misappropriation claims<sup>122</sup> have statutorily mandated time restrictions. Neither trademark-<sup>123</sup> nor patent-<sup>124</sup> infringement claims are similarly expressly limited. Instead, to prevent patent owners from “sleeping on their rights,” the doctrine of laches is available as an equitable defense for alleged infringers.<sup>125</sup> Instead of a bright-line rule, laches “invokes the *discretionary* power of the district court to limit the defendant’s liability for infringement . . . .”<sup>126</sup>

Beyond the procedural mimicry of the nine-month barrier to statutes of limitations, the IPR–PGR dichotomy serves some of the same policy purposes.<sup>127</sup> First, the nine-month barrier aims to prevent third parties from sleeping on their right to bring a subject-matter eligibility challenge. Evidence suggests third parties are reticent to challenge even

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Aug. 2008, at 1, 2 (“One view held that each instance in which a defendant misused a given [trade] secret gave rise to a new cause of action.”). There is, however, another view whereby “each such instance [is] subsumed with a ‘single claim’” that begins the statute of limitations. *Id.*

121. See 17 U.S.C. § 507(b) (2012) (“No civil action shall be maintained under the provisions of [the copyright] title unless it is commenced within three years after the claim accrued.”).

122. Unif. Trade Secrets Act § 6, 14 U.L.A. 649 (2005) (“An action for [trade-secret] misappropriation must be brought within 3 years after the misappropriation is discovered or by the exercise of reasonable diligence should have been discovered.”). The statute of limitations for trade secrets begins to run on actual or constructive discovery. See Snyder, Quintanilla & Myers, *supra* note 120, at 2 (finding notice requirement instituted “in order to mitigate the harsh result that a claim could become time barred before the would-be plaintiff had any reasonable way to know that a misappropriation had occurred”).

123. Ronald J. Nessim, *Criminal (and Civil) Trademark Infringement: What Statute of Limitations Applies?*, 76 J. Pat. & Trademark Off. Soc’y 933, 936 (1994).

124. Though the AIA limits recovery if the infringing action occurred over six years before a complaint was filed, it does not preclude parties from bringing the action. 35 U.S.C. § 286 (2012); see also *A.C. Aukerman Co. v. R.L. Chaides Constr. Co.*, 960 F.2d 1020, 1030 (Fed. Cir. 1992) (“[S]ection 286 is not a statute of limitations in the sense of barring a suit for infringement.”).

125. *Aukerman*, 960 F.2d at 1031. Laches is not only a bar to monetary remedies but also to legal claims. *Id.* Laches is also available in trademark law; there, it is not only available at common law but written directly into the statute. 15 U.S.C. § 1115(b)(9) (2012). Of note, whether or not the defense of laches will continue to be available in patent cases is currently before an en banc panel of the Federal Circuit. See *SCA Hygiene Prods. Aktiebolag v. First Quality Baby Prods., LLC*, No. 2013-1564, 2014 WL 7460970 (Fed. Cir. Dec. 30, 2014) (order granting petition for rehearing en banc).

126. *Aukerman*, 960 F.2d at 1030. A defendant must prove the following in order to invoke the laches defense in a patent-infringement suit: (1) “[T]he plaintiff delayed filing suit for an unreasonable and inexcusable length of time from the time the plaintiff knew or reasonably should have known of its claim against the defendant, and” (2) “the delay operated to the prejudice or injury of the defendant.” *Id.* at 1032. A delay of six years brings a rebuttable presumption of laches. *Id.* at 1035.

127. See *supra* notes 115–120 and accompanying text (noting policy rationale of statutes of limitations).

bad patents.<sup>128</sup> The nine-month barrier alleviates this problem, encouraging “preemptive strikes.”<sup>129</sup> While a claim of invalidity is a common response to an infringement charge,<sup>130</sup> a third party may be more apt to proactively bring such an action before the PTO while subject-matter eligibility challenges are available. Second, after nine months, third parties can still raise § 101 issues for the first time before a court once administrative remedies are no longer at their disposal. This tempers the harshness of the nine-month barrier and ensures meritorious claims are resolved, drawing similarities to the discovery rule and other means of tolling statutes of limitations.<sup>131</sup> Finally, restricting administrative subject-matter eligibility challenges may bring much-needed clarity to the judicial exceptions.<sup>132</sup> Because of the limited timeframe of PGR, third parties are likely to bring only easily resolvable claims to the PTO. As a result, only more complex subject-matter eligibility questions will reach the dockets of Article III judges.<sup>133</sup> The IPR–PGR dichotomy may therefore increase judicial efficiency, allowing resolution of more nuanced aspects of the judicial exceptions.

But the nine-month barrier does not perfectly mirror statutes of limitations. Subject-matter eligibility claims are not “stale” after the passage of nine months.<sup>134</sup> Third-party challengers are still able to bring these actions before the courts. And alternative claims of invalidity, predicated on novelty or nonobviousness, can still freely be heard by the

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128. Cf. Roger Allan Ford, Patent Invalidity Versus Noninfringement, 99 *Cornell L. Rev.* 71, 90 (2013) (“Patent litigants, like all litigants, are risk averse, with both sides having incentives to license even invalid patents.”); Jay P. Kesan & Andres A. Gallo, Why “Bad” Patents Survive in the Market and How Should We Change?—The Private and Social Costs of Patents, 55 *Emory L.J.* 61, 70 (2006) (“[I]ncorrectly issued patents can survive in the market without judicial review, even when the invention is neither novel nor nonobvious.”).

129. Although too early to tell with PGR, from September 2012 to November 2013, there were eighty-five total IPRs that were instituted with no associated litigation, in comparison to 610 that were instituted *with* litigation. Gregory J. Gonsalves, TC Beckett & Barry Leff, Trends in Inter Partes Review and Covered Business Method Review, *Intell. Asset Mgmt. Mag.*, Mar./Apr. 2014, at 20, 23, 25, <http://www.iam-magazine.com/Magazine/Issue/64/Features/Trends-in-inter-partes-review-and-covered-business-method-review> (on file with the *Columbia Law Review*). This data suggests new post-grant proceedings in general might be used as a preemptive strike.

130. See Ford, *supra* note 128, at 77–87 (discussing two main defenses to patent-infringement claim, patent invalidity and noninfringement).

131. See *supra* notes 118–120 and accompanying text (describing measures to soften harshness of statutes of limitations).

132. See *supra* section I.B.2 (discussing ambiguity of § 101 jurisprudence in wake of recent Supreme Court decisions).

133. Whether judges are the appropriate body to resolve these complex issues is a separate issue this Note will also consider. See *infra* section II.C.1 (addressing subject-matter eligibility and institutional competence).

134. See *supra* notes 115–120 and accompanying text (remarking staleness of claims underlies adoption of statutes of limitations).

PTAB,<sup>135</sup> these challenges may even significantly overlap with those invoking the judicial exceptions.<sup>136</sup> Moreover, subject-matter eligibility claims are a matter of law,<sup>137</sup> within the courts' exclusive purview and independent of reliance upon witnesses or evidence whose authenticity becomes questionable over time. These questions are therefore more immune from the time-sensitive nature of evidence—a driving force behind strict statutes of limitations in other areas of law.<sup>138</sup>

Analogizing to laches is similarly somewhat unsatisfactory. As an equitable remedy, laches, unlike the nine-month barrier, is discretionary, not mandatory. Moreover, both statutes of limitations and laches protect the *infringer*,<sup>139</sup> whereas the nine-month barrier operates to the benefit of the *patentee*. A more comparable cause of action to an administrative subject-matter eligibility challenge is one seeking a declaratory judgment of invalidity.<sup>140</sup> Notably, such motions are not subject to time limitations under the Declaratory Judgment Act.<sup>141</sup> Despite the lack of perfect comparison, the parallels between the nine-month barrier and other temporal restrictions highlight the importance of the IPR–PGR dichotomy in encouraging third parties to bring their subject-matter eligibility challenges early.

3. *Further Restricting the Nine-Month Barrier: Limiting to First-to-File Patents.* — The nine-month barrier is also not the only major limitation Congress has imposed on PGR petitions. As explained, PGR is only available as an administrative option if the patent at issue was first filed after the AIA came into effect.<sup>142</sup> Imposing such an anti-retroactive measure helps ensure the constitutionality of allowing the PTO to hear subject-matter eligibility challenges. The Takings Clause protects private property, such that it cannot “be taken for public use, without just

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135. 35 U.S.C. § 311(b) (2012).

136. See *supra* note 62 and accompanying text (noting criticism subject-matter eligibility challenges and allegations of obviousness or lack of novelty are redundant).

137. *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1369 (Fed. Cir. 2011); accord *In re Roslin Inst. (Edinburgh)*, 750 F.3d 1333, 1335 (Fed. Cir. 2014) (noting § 101 patent eligibility is matter of law); *Fort Props., Inc. v. Am. Master Lease LLC*, 671 F.3d 1317, 1320 (Fed. Cir. 2012) (same).

138. See *Order of R.R. Telegraphers v. Ry. Express Agency, Inc.*, 321 U.S. 342, 348–49 (1944) (“Statutes of limitation . . . are designed to promote justice by preventing surprises through the revival of claims that have been allowed to slumber until evidence has been lost, memories have faded, and witnesses have disappeared.”).

139. See *supra* notes 125–126 and accompanying text (describing laches).

140. See 28 U.S.C. § 2201 (2012) (describing remedy).

141. “But the passage of time does not counsel against finding declaratory judgment jurisdiction if ‘the relevant circumstances’ surrounding the patentee’s assertion of patent rights ‘have not changed despite the passage of time.’” *3M Co. v. Avery Dennison Corp.*, 673 F.3d 1372, 1380–81 (Fed. Cir. 2012) (quoting *Ass’n for Molecular Pathology v. U.S. Patent & Trademark Office*, 653 F.3d 1329, 1346 (Fed. Cir. 2011), *aff’d in part, rev’d in part sub nom. Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107 (2013)).

142. AIA, Pub. L. No. 112-29, sec. 6(f)(2)(A), 125 Stat. 284, 311 (2011).

compensation.”<sup>143</sup> The doctrine of takings has led to a rich body of case law with respect to real property.<sup>144</sup> Its application to intellectual property, however, is unclear and has merited substantial scholarly debate.<sup>145</sup> Adam Mossoff describes the principal argument against applying takings to an inventor’s patent: “The government’s unauthorized use of a patented invention . . . lacks the physical dispossession that triggers a compensable taking of land . . . . [It] does not interfere with a patentee’s own use of the invention, and, more importantly, the patentee can continue to exclude others from using it.”<sup>146</sup> But the Supreme Court has yet to explicitly address whether takings operates more generally in the realm of patent law.

Hypothetically, a party challenging the PTO decision to invalidate a patent on the basis of § 101 would argue that the government is appropriating an individual’s intellectual property for public use—an action requiring “just compensation.”<sup>147</sup> Takings case law, however, does not support this argument. The PTO’s invalidation of a patent on the basis of the judicial exceptions does not deprive an owner of all economically beneficial use and is therefore inappropriately framed as a

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143. U.S. Const. amend. V.

144. Cf., e.g., *Palazzolo v. Rhode Island*, 533 U.S. 606, 617 (2001) (“[A] taking nonetheless may have occurred, depending on a complex of factors including the regulation’s economic effect on the landowner, the extent to which the regulation interferes with reasonable investment-backed expectations, and the character of the government action.”); *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1030 (1992) (“When . . . a regulation that declares ‘off-limits’ all economically productive or beneficial uses of land goes beyond what the relevant background principles would dictate, compensation must be paid to sustain it.”); *Loretto v. Teleprompter Manhattan CATV Corp.*, 458 U.S. 419, 441 (1982) (“We affirm the traditional rule that a permanent physical occupation of property is a taking.”); *Penn Cent. Transp. Co. v. New York City*, 438 U.S. 104, 124 (1978) (determining question of whether “economic injuries caused by public action [should] be compensated by the government” depends on “ad hoc, factual inquiries”); *Pa. Coal Co. v. Mahon*, 260 U.S. 393, 413 (1922) (invoking “extent of the diminution” test); *Hadacheck v. Sebastian*, 239 U.S. 394, 410–12 (1915) (finding ordinance at issue was sufficient nuisance such that it was within state police power to regulate without just compensation).

145. Compare Adam Mossoff, *Patents as Constitutional Private Property: The Historical Protection of Patents Under the Takings Clause*, 87 B.U. L. Rev. 689, 724 (2007) (concluding courts have historically ruled patents are constitutionally protected private property), with Davida H. Isaacs, *Not All Property Is Created Equal: Why Modern Courts Resist Applying the Takings Clause to Patents, and Why They Are Right to Do So*, 15 Geo. Mason L. Rev. 1, 43 (2007) (“[P]atentholders are not entitled to assert takings claims.”). The Federal Circuit has made at least one clarification about the Takings Clause’s applicability to patent law. In *Zoltek Corp. v. United States*, the court held that patent holders could not bring an action against the government for infringement under the Takings Clause. 442 F.3d 1345, 1350 (Fed. Cir. 2006), vacated as moot, 672 F.3d 1309, 1327 (Fed. Cir. 2012).

146. Mossoff, *supra* note 145, at 721 (emphasis omitted) (footnote omitted).

147. U.S. Const. amend. V.

per se taking.<sup>148</sup> The inventor is still able to profit off the use or sale of the invention and can continue to make personal use of it.<sup>149</sup>

Further, the new administrative challenges do not infringe upon a patent owner's "reasonable investment-backed expectations."<sup>150</sup> Through ex parte and inter partes reexamination, the PTO has been able to invalidate patents on the basis of novelty or nonobviousness for over fifteen years.<sup>151</sup> Thus, current patent owners have advance notice that the PTO could invalidate their patents on the grounds available at IPR.<sup>152</sup> By limiting subject-matter eligibility challenges to patents granted *after* the institution of the AIA, Congress similarly provided that advance notice for grounds available at PGR—such as subject-matter eligibility.<sup>153</sup>

### B. *Practical Effects: Benefits and Detriments of the Nine-Month Barrier for Third Parties*

The statutory limitations and restrictions discussed above have important implications for the IPR–PGR dichotomy. In particular, the nine-month barrier results in differences between the compositions of parties fighting invalidity before the courts and those before the PTO. As of June 18, 2015, only nine PGR requests have been filed, in sharp contrast with 3,083 petitions filed for IPR.<sup>154</sup> The limited timeframe of

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148. See *Palazzolo*, 533 U.S. at 617 (relying on *Lucas* to note regulation, which deprives real property of all value is per se taking).

149. This raises a similar anti-takings argument to that expressed by Mossoff. See Mossoff, *supra* note 145, at 721 (articulating main argument against applying takings to patent law).

150. *Palazzolo*, 533 U.S. at 617 (stating factors courts analyze when regulation "fall[s] short of eliminating all economically beneficial use").

151. See *supra* notes 70–71 and accompanying text (discussing enactment of ex parte and inter partes reexamination).

152. A patent's term extends to twenty years post-filing. 35 U.S.C. § 154(a)(2) (2012). As a result, current patent owners would have filed after the institution of ex parte reexamination, and most would even have done so after inter partes reexamination came into effect. See *supra* notes 70–71 and accompanying text (noting ex parte and inter partes reexaminations were enacted in 1980 and 1999, respectively). Inter partes reexamination was also limited to those patents filed after it had been signed into law. American Inventors Protection Act of 1999, Pub. L. No. 106-113, § 4608, 113 Stat. 1501, 1501A-572.

153. It is notable that in *Patlex Corp. v. Mossinghoff*, a takings claim was unsuccessfully brought in an attempt to strike ex parte reexamination as unconstitutional even though there was retroactive effect. 758 F.2d 594, 602–03 (Fed. Cir. 1985). In that case, "overriding public purposes" were sufficient to ensure the constitutionality of the retroactive provision. *Id.* at 603. An anti-retroactive provision in PGR makes reaching a determination of whether or not "overriding public purposes" exist unnecessary. AIA, Pub. L. No. 112-29, sec. 6(f)(2)(A), 125 Stat. 284, 311 (2011).

154. U.S. Patent & Trademark Office, Patent Trial and Appeal Board AIA Progress 1 (June 18, 2015), [http://www.uspto.gov/sites/default/files/documents/aia\\_statistics\\_06-18-2015.pdf](http://www.uspto.gov/sites/default/files/documents/aia_statistics_06-18-2015.pdf) [<http://perma.cc/PWQ2-T937>] [hereinafter U.S. Patent & Trademark Office, AIA Progress]; see also Dennis Crouch, The New Role for Post Grant Review Proceedings (PGR), Patently-O (Oct. 8, 2014), <http://patentlyo.com/patent/2014/10/grant-review->



PGR is unlikely solely responsible for the present disparity in filing statistics. As just explained, PGR is limited to first-to-file patents while IPR is available for all patents—automatically reducing the number of patents for which PGR is an option, especially for the years immediately following PGR’s availability.<sup>155</sup> But even in the event that PGR does become more heavily utilized in the next few years,<sup>156</sup> discrepancies in filing statistics would continue because the limited timeframe still necessarily constricts the number of PGR petitions that can be filed. The result would not only be a gap in the number of petitions but also a distinction in the makeup of third parties bringing an IPR versus PGR petition.

When Congress passed the post-grant provisions of the AIA, it intended to make challenging a patent’s validity more cost effective.<sup>157</sup> Patent litigation is “the true sport of kings,” with litigation expenditures costing millions of dollars.<sup>158</sup> As a result, larger companies benefit from having the resources to more easily manage such extensive bills and see litigation through to trial.<sup>159</sup> Post-grant proceedings are intended to “level[] the playing field.”<sup>160</sup> Costs are estimated in the hundreds of thousands of dollars range—a figure ostensibly more manageable for

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proceedings.html [http://perma.cc/LUQ5-WR4Y] [hereinafter Crouch, New Role] (detailing factual circumstances surrounding two PGR petitions).

155. See supra notes 85, 88 and accompanying text (noting restriction to patent type for IPR and PGR).

156. The dearth of reexamination petitions being filed was a major impetus to overhauling post-grant proceedings. See supra notes 80–83 and accompanying text (summarizing briefly move from reexamination to new post-grant proceedings).

157. See supra note 81 and accompanying text (noting congressional intent of post-grant proceedings).

158. See Todd Hixon, For Most Small Companies, Patents Are Just About Worthless, *Forbes* (Oct. 4, 2013, 12:57 AM), <http://www.forbes.com/sites/toddhixon/2013/10/04/for-most-small-companies-patents-are-just-about-worthless/> [http://perma.cc/2MNJ-N23B] (“Enforcing your patent in the courts is a nightmare. Plan on 3–5 years and \$3–\$5 million to get to a judgment. And then there is the appeal.”); see also Jim Kerstetter, How Much Is that Patent Lawsuit Going to Cost You?, *CNET* (Apr. 5, 2012, 10:00 AM), <http://www.cnet.com/news/how-much-is-that-patent-lawsuit-going-to-cost-you/> [http://perma.cc/L3NW-G27Z] (delineating theoretical bill breakdown for patent lawsuit).

159. See Jeff Canter, It’s Time to Make the Plaintiff Responsible for Predatory Patent Litigation, *Forbes* (Mar. 13, 2014, 6:25 AM), <http://www.forbes.com/sites/realspin/2014/03/13/its-time-to-make-the-plaintiff-responsible-for-predatory-patent-litigation/> [http://perma.cc/VW6S-JV5X] (“Companies like Apple and Samsung have charged shoulder first into patent litigation battles for one obvious reason: they have enough money to win and cripple competitors.”).

160. “[T]he goal of the new *America Invents Act* is to create not just the simplest possible patent system, or the most precise patent system, but rather the most innovation-friendly and inventor-friendly patent system that reduces costs, levels the playing field for businesses small and large, and spurs economic growth.” David Kappos, Under Sec’y of Commerce for IP & Dir. of the USPTO, *The America Invents Act and a Global Call for Harmonization* (Sept. 22, 2011), [http://www.uspto.gov/news/speeches/2011/kappos\\_wipo.jsp](http://www.uspto.gov/news/speeches/2011/kappos_wipo.jsp) [http://perma.cc/ER9C-DB3S].

individuals or smaller companies.<sup>161</sup> Whether “the little guy”<sup>162</sup> is accorded any competitive advantage in bringing subject-matter eligibility challenges before the PTO, however, is less certain. To explore this question, this section first examines *which* third parties can bring subject-matter eligibility challenges in post-grant proceedings. It does so by looking at defensive challenges in reaction to an adversarial infringement suit as well as invalidity challenges that are used offensively as a means of proactively invalidating a competitor’s patent. This section then ends by pondering the effect of the nine-month barrier on suits involving non-practicing entities (NPEs).

1. *On the Defensive: Post-Grant Proceedings as a Response to an Infringement Suit.* — With respect to defensive invalidity challenges, the IPR–PGR dichotomy does not disparately advantage any particular third party, whether they are a large conglomerate or an individual inventor. The nine-month barrier does, however, affect patent owner behavior. Post-grant proceedings are already being used as a response to infringement actions; “in 80 percent of IPRs, the challenged patent was also asserted in litigation between the petitioner and respondent.”<sup>163</sup> The prevalence of this defensive use of post-grant proceedings is unsurprising given that counterclaims of invalidity frequently accompany assertions of infringement<sup>164</sup> and the cost-saving nature of the administrative route. But though IPR and PGR are similarly cost effective,<sup>165</sup> they are not equivalently useful as a response to an infringement suit. For IPR, any defendant has a year following notice of an infringement action to institute proceedings.<sup>166</sup> The benefits of this course of action are not without limitation; defendants must still convince the court to stay the infringement claim until the IPR is resolved by the PTAB. Fortunately for defendants, such motions to stay are generally successful.<sup>167</sup> By contrast,

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161. See Gonsalves, Beckett & Leff, *supra* note 129, at 20 (noting cost of post-grant proceedings is “not cheap” but is “still much less expensive than seeking to invalidate a patent in federal court”).

162. As used here, the moniker the “little guy” refers to less influential players in the corporate world: smaller companies, start-up corporations, and individual entrepreneurial inventors.

163. Brian J. Love & Shawn Ambwani, *Inter Partes Review: An Early Look at the Numbers*, 81 U. Chi. L. Rev. Dialogue 93, 103 (2014). Also, recall a suit for infringement *must* accompany a petition for CMBR. AIA, Pub. L. No. 112-29, sec. 18(a)(1)(B), 125 Stat. 284, 330 (2011).

164. See *Ill. Comput. Research LLC v. HarperCollins Publishers, Inc.*, No. 10 Civ. 9124(KBF), 2012 WL 163801, at \*1 (S.D.N.Y. Jan. 19, 2012) (describing “matter of course” procedure for patent litigation, whereby defendants accused of infringement “very frequently” assert counterclaim of invalidity).

165. The filing fees are comparable for IPR and PGR. 37 C.F.R. § 42.15 (2014) (noting filing fees for both proceedings); see also *supra* notes 157–161 and accompanying text (noting overall cost savings of post-grant proceedings as compared to trial).

166. 35 U.S.C. § 315(b) (2012).

167. A recent study has supported this view: “Of patent suits proceeding in parallel with an instituted IPR between the same parties, a motion to stay was filed in over 76

the advantages to PGR's use as a defensive technique are somewhat stymied by restrictions in the ability to halt simultaneous litigation proceedings.<sup>168</sup>

Corporations, often parties to patent litigation,<sup>169</sup> will be especially attuned to cheaper alternatives to costly trials when sued for infringement. This particular use of post-grant proceedings, however, does not overtly advantage large corporations over smaller ones. Where a patentee is sufficiently motivated to file an infringement claim immediately upon patent issuance, defendants are unable to halt a court's consideration of an adversarial preliminary injunction.<sup>170</sup> Because of this inability to stall parallel infringement litigation, *any* defendant—corporation or not—might be reticent to respond by filing a PGR petition. By contrast, in cases where a suit is not filed immediately upon patent issuance, alleged infringers can pause a costly trial while they pursue an IPR proceeding; thus *all* defendants are well served by making use of the cheaper alternative to immediately pursuing a counterclaim of invalidity.<sup>171</sup>

The defensive use of post-grant proceedings affects not only the behavior of defendants but also that of patent owners. Specifically, the nine-month barrier incentivizes patent owners to wait nine months to assert their patent.<sup>172</sup> In doing so, the patentee can make the defensive use of post-grant proceedings a moot point for parties who wish to predicate their challenge to the patent's validity on subject-matter eligibility.<sup>173</sup> This leaves third parties to choose among less attractive options: fight the infringement claim through the courts and prolong costly litigation, or settle the suit. Thus, Congress not only limited subject-matter eligibility challenges before the PTO to nine months; it may have for all intents and purposes foreclosed it completely—at least

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percent. Overall, these cases were stayed (at least in part) 82 percent of the time, though rates varied considerably across districts." Love & Ambwani, *supra* note 163, at 103.

168. See 35 U.S.C. § 325(b) (limiting courts' ability to stay preliminary injunction motion).

169. Overwhelmingly, patent litigation involves corporate entities. A study showed that ten years ago, corporations faced off in patent litigation 84.6% of the time with corporations appearing as a defendant in an infringement suit 95.3% of the time. Kimberly A. Moore, *Populism and Patents*, 82 N.Y.U. L. Rev. 69, 94 *tbl.3* (2007). This has continued into 2014, with large technology companies bearing "the brunt of patent litigation." Brian Howard, *Lex Machina Releases First Annual Patent Litigation Year in Review*, *Lex Machina* (May 13, 2014), <https://lexmachina.com/patent-litigation-review/> [<http://perma.cc/VDT5-LUM8>].

170. 35 U.S.C. § 325(b).

171. Cf. *supra* notes 166–167 and accompanying text (discussing defensive IPR).

172. See Crouch, *New Role*, *supra* note 154 ("[PGR] provides patent owners at least some incentive to hold-off asserting their patent until after [the nine-month] window has closed (unless the patentee would welcome the review).").

173. While there is no empirical evidence, the limited number of PGR petitions filed thus far strongly suggests this is the case. See *supra* note 154 and accompanying text (noting disparity between PGR and IPR petitions filed).

for some third parties. The IPR–PGR dichotomy effectively puts that power into the hands of knowledgeable patentees. Canny patent owners can wait nine months, leaving administrative subject-matter eligibility challenges open only to those who are apt to monitor patents and can therefore bring a petition for PGR offensively. As the next section suggests, such a strategic use of PGR overwhelmingly benefits large, established corporations—creating tension with the original purposes of the AIA.

2. *Strategic Subject-Matter Eligibility Challenges: Only for Large Companies.*—A significant corporate advantage presented by post-grant proceedings is the ability to invalidate another business’s patent through the PTO. It is a multipurpose tool within a corporation’s arsenal. A company can not only seek a competitive edge by waging a calculated attack on a rival’s patent portfolio but can also attempt to strike exorbitant licensing fees from their balance sheets if those licenses are predicated on weak patents. The offensive use of IPR or PGR also demonstrates a tangible benefit of post-grant proceedings beyond mere cost savings. Asserting patent invalidity purposefully, rather than in response to the threat of litigation, is unlikely to present a case or controversy sufficient to provide the plaintiff-company standing to bring a declaratory action of patent invalidity.<sup>174</sup> As a tactical matter, the administrative route is therefore the more attractive—and perhaps only—option for the company. Evidence suggests corporations recognize this and are already making strategic use of IPR.<sup>175</sup>

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174. Third parties may seek declaratory judgment of patent invalidity even though the patentee has not initiated an infringement suit. *Cardinal Chem. Co. v. Morton Int’l, Inc.*, 508 U.S. 83, 95 (1993). But “the Declaratory Judgment Act requires the existence of an actual case or controversy between the parties before a federal court can constitutionally assume jurisdiction.” *Goodyear Tire & Rubber Co. v. Releasomers, Inc.*, 824 F.2d 953, 955 (Fed. Cir. 1987). Until 2007, the Federal Circuit employed a two-part test to determine whether or not a sufficient case or controversy exists in a patent case: (1) whether the defendant’s conduct “created on the part of a plaintiff a reasonable apprehension that the defendant will initiate suit if the plaintiff continues the allegedly infringing activity” and (2) whether the plaintiff “produced the device or ha[s] prepared to produce that device.” *Id.* Following the Supreme Court’s decision in *MedImmune, Inc. v. Genentech, Inc.*, 549 U.S. 118 (2007), however, the Federal Circuit acknowledged a rejection of the “reasonable apprehension of suit” test and instead embraced an “all the circumstances” test. *Teva Pharm. USA, Inc. v. Novartis Pharm. Corp.*, 482 F.3d 1330, 1339 (Fed. Cir. 2007); see also *SanDisk Corp. v. STMicroelectronics, Inc.*, 480 F.3d 1372, 1380 (Fed. Cir. 2007) (noting rejection of “reasonable apprehension of suit” test in *MedImmune*).

175. Although “in 80 percent of IPRs, the challenged patent was also asserted in litigation between the petitioner and respondent,” twenty percent of IPRs were instituted *without* a realized threat of litigation. Love & Ambwani, *supra* note 163, at 103. This strategy has not gone unnoticed by commentators: “*Inter partes* reviews filed in cases where there is no associated litigation are overwhelmingly filed against operating companies (60.6% of the time), presumably in an attempt to secure competitive advantage (clearly not the original motivation behind the change in rules).” Gonsalves, Beckett & Leff, *supra* note 129, at 23.

Large conglomerates are best poised to employ post-grant proceedings as a strategic maneuver, bringing a petition for IPR or PGR without a looming threat of litigation. Companies are financially dependent upon their intellectual property.<sup>176</sup> Clever, deliberate patent strategy is therefore correlated with company success.<sup>177</sup> As such, large corporations tend to be more sophisticated with respect to patent law than their smaller counterparts. In addition, big businesses have the infrastructure to monitor what patents are being filed.<sup>178</sup> These resources and requisite knowledge of the patent system ensure large corporations are potentially able to use not only the nine-month period PGR is available but also the time between an application being published and ultimately issued.<sup>179</sup> As a result, larger companies can take full advantage of the availability of administrative subject-matter eligibility challenges.

By contrast, smaller companies may not be as readily able to make strategic use of PGR. Perhaps there are those among the little guys who will have an incentive to monitor;<sup>180</sup> however, start-up companies and individual inventors will be less likely to have the resources to do so as a matter of course.<sup>181</sup> If the third party is also a latecomer, established long after a potentially problematic patent has issued, the matter is exacerbated.<sup>182</sup> At that point, no third party can use the judicial

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176. “Research indicates that about 70% to 80% of a company’s market capitalization comes in the form of intangible assets, which include intellectual assets such as patents, trademarks, copyrights, and other business knowledge and know-how.” Joseph G. Hadzima, Jr., *How to Tell What Patents Are Worth*, *Forbes* (June 25, 2013, 11:13 AM), <http://www.forbes.com/sites/forbesleadershipforum/2013/06/25/how-to-tell-what-patents-are-worth> [<http://perma.cc/QEJ2-YZUX>].

177. See *id.* (marking success as going public or being acquired).

178. See Jay M. Mattappally, Comment, *Goliath Beats David: Undoing the Leahy-Smith America Invents Act’s Harmful Effects on Small Businesses*, 58 *Loy. L. Rev.* 981, 1019 (2012) (“Only big companies with a stable of in-house counsel and legal staff can afford to constantly monitor the availability of newly issued patents and challenge them in time.”).

179. See *supra* section II.A.1 (discussing realistic timeline of nine-month barrier).

180. For example, a patent owner who brings an infringement action on one patent incentivizes the alleged infringer, even if a little guy, to begin monitoring any applications the patentee may have pending with the PTO. See Crouch, *New Role*, *supra* note 154 (suggesting this may be common occurrence).

181. Cf. Robert Jordan, *The New Patent Law: End of Entrepreneurship?*, *Forbes* (Nov. 13, 2012, 12:00 PM), <http://www.forbes.com/sites/robertjordan/2012/11/13/the-new-patent-law-end-of-entrepreneurship/> [<http://perma.cc/5WMM-RVEL>] (“[S]tartups without cash on hand will not be able to protect their idea.”).

182. Large companies may also be latecomers and face similar bars to using subject-matter eligibility challenges. But in fields such as computer technology, for example, it is start-ups that are left to “carve out fiefs of their own” in an industry dominated by the “big four”: Google, Apple, Facebook, and Amazon. Another Game of Thrones, *Economist* (Dec. 1, 2012), <http://www.economist.com/news/21567361-google-apple-facebook-and-amazon-are-each-others-throats-all-sorts-ways-another-game> [<http://perma.cc/PJ88-MLYN>].

exceptions as a tactical maneuver; highlighted, the true issue of the IPR–PGR dichotomy.<sup>183</sup>

Moreover, smaller corporations may be at the mercy of larger corporations that can make full use of the tactical benefits of post-grant proceedings.<sup>184</sup> If big businesses are filing strategic lawsuits against small companies, they may similarly use post-grant proceedings. Whether benefitting larger companies at the expense of the little guy is economically detrimental, and therefore worthy of concern, admittedly remains unclear.<sup>185</sup> But the institution of the nine-month barrier will seemingly create a disparate impact on these smaller entities. Such an effect is, at least, at cross-purposes with the original intent of the AIA to modulate corporate advantages.<sup>186</sup> But it is not the only manner in which PGR potentially falls short of promoting the objectives of the AIA.

3. *What About Non-Practicing Entities?* — In foreclosing administrative subject-matter eligibility challenges after nine months, third parties are also potentially less able to mount a response before the PTO to certain types of patents asserted by non-practicing entities.<sup>187</sup> In crafting the AIA, Congress attempted to address the growing power NPEs were having in patent litigation. Congressman Lamar Smith, an author of the AIA, expressed as much when he said: “[O]ur outdated patent system has

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183. Of course, the option to seek a declaratory judgment of invalidity on the basis of subject-matter eligibility is still open to smaller companies and individual inventors. As explained, however, a sufficient case or controversy is required to maintain standing—a significant impediment. See *supra* note 174 and accompanying text (identifying difficulty of using motion for declaratory judgment of invalidity as strategic tool).

184. Some critics have gone much further:

In the world of patent law, the halls of justice, rather than shielding the little guys, have been turned into a weapon to assault those little guys . . . . [S]mall entities are being threatened with patent lawsuits of seriously questionable merit, but those small entities are forced to acquiesce because the costs of justice are too high.

Charles Duan, *Big Businesses Are Filing Frivolous Patent Lawsuits to Stifle Innovative Small Competitors*, *Forbes Opinion* (Feb. 24, 2014, 7:00 AM), <http://www.forbes.com/sites/realspin/2014/02/24/big-businesses-are-filing-frivolous-patent-lawsuits-to-stifle-innovative-small-competitors/> [<http://perma.cc/L5ES-EWVE>].

185. See J.D. Harrison, *Who Actually Creates Jobs: Start-ups, Small Businesses or Big Corporations?*, *Wash. Post* (Apr. 25, 2013), [http://www.washingtonpost.com/business/on-small-business/who-actually-creates-jobs-start-ups-small-businesses-or-big-corporations/2013/04/24/d373ef08-ac2b-11e2-a8b9-2a63d75b5459\\_story.html](http://www.washingtonpost.com/business/on-small-business/who-actually-creates-jobs-start-ups-small-businesses-or-big-corporations/2013/04/24/d373ef08-ac2b-11e2-a8b9-2a63d75b5459_story.html) [<http://perma.cc/J3EV-GBUY>] (detailing conflicting views on “which group should take priority”).

186. See *supra* notes 157–161 and accompanying text (discussing AIA’s intent to level corporate playing field).

187. NPEs are aptly termed; “[t]he entity is ‘non-practicing’ because it does not manufacture products or otherwise make use of the invention.” Tracie L. Bryant, Note, *The America Invents Act: Slaying Trolls, Limiting Joinder*, 25 *Harv. J.L. & Tech.* 687, 690 (2012). Examples of NPEs include: Intellectual Ventures, Transpacific IP Ltd., and Round Rock. See Mark A. Lemley & A. Douglas Melamed, *Missing the Forest for the Trolls*, 113 *Colum. L. Rev.* 2117, 2126–27, 2126 n.47 (2013) (citing examples of “patent aggregators”).

become a barrier to innovation and invites lawsuits from holders of questionable patents seeking to extort millions of dollars from companies . . . . We need reforms that discourage frivolous suits, enhance patent quality and streamline international principles.”<sup>188</sup> The new post-grant proceedings, in particular, were hailed as a cost-effective means of defending against infringement suits, particularly those filed by NPEs.<sup>189</sup>

But it is uncertain that defendants subject to NPE-initiated litigation will be able to bring an administrative subject-matter eligibility challenge to bear. Unless the NPE acquired the patent at issue immediately upon issuance—an unlikely scenario<sup>190</sup>—the nine-month timeline will be lost. As a result, use of post-grant proceedings (either defensively or offensively) against NPEs will be limited to novelty and non-obviousness.<sup>191</sup> A recent study into the distribution of NPE litigation across technology classes notes the patents at issue are concentrated in “software and related technologies,” with “drugs and medical” also accounting for one percent of suits.<sup>192</sup> Similar classes of patents were the focus of the latest Supreme Court patentable-subject-matter jurisprudence. Recall in *Mayo*, *Myriad*, and *Alice*, the patentability of pharmaceutical/medical, genetic, and software patents were all questioned, and rejected, on judicial-exception grounds.<sup>193</sup> Subject-matter eligibility challenges are therefore a potentially useful tool against NPEs—one which the IPR–PGR dichotomy precludes defendants from bringing before the PTO. In the end, though the nine-month barrier overtly benefits large corporations to the detriment of smaller companies, neither will be able to make use of subject-matter eligibility challenges against NPEs.

### C. *Other Potential Consequences of the Nine-Month Barrier*

Beyond influencing the type of defendant likely to file PGR petitions, other considerations of having time-limited administrative subject-matter eligibility challenges include the effect of having two

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188. Press Release, Judiciary Comm., U.S. House of Representatives, Chairman Smith: Patent Reform Creates Jobs (Mar. 30, 2011), <http://judiciary.house.gov/index.cfm/press-releases?ID=1B4FA0BB-9038-695A-3977-C8AA7D61778E> (internal quotation marks omitted) [<http://perma.cc/7DSD-5E9M>].

189. See Love & Ambwani, *supra* note 163, at 94 & n.5 (noting original goal of IPR to fight suits begun by NPEs).

190. See Brian J. Love, *An Empirical Study of Patent Litigation Timing: Could a Patent Term Reduction Decimate Trolls Without Harming Litigators?*, 161 U. Pa. L. Rev. 1309, 1331 (2013) (finding NPEs wait to begin enforcing their patents until “nine years from expiration,” well beyond nine-month timeline of PGR).

191. See 35 U.S.C. § 311(b) (2012) (limiting challenges available at IPR).

192. See James Bessen, Jennifer Ford & Michael J. Meurer, *The Private and Social Costs of Patent Trolls, Regulation*, Winter 2011–2012, at 26, 29 & tbl.2 (summarizing characteristics of NPE lawsuits).

193. See *supra* section I.B.1 (discussing recent Supreme Court decisions on judicial exceptions).

separate institutions consider post-grant § 101 issues and the nine-month barrier's potential influence on patent litigation as a whole.

1. *Institutional Competence: Who Best Determines What a Law of Nature Is?* — The bifurcation of subject-matter eligibility questions runs the risk that two distinct conceptions of § 101 will develop—the courts' and the PTO's. While ostensibly both are governed by the same case law,<sup>194</sup> narrow or broad readings of the relevant precedents can lead to different interpretations of the boundaries of the judicial exceptions<sup>195</sup>—and consequently determine which patents are valid. In practice, however, controversial subject-matter eligibility questions—whether initiated before the courts or before the PTO—will nevertheless be appealed and be decided by the judiciary. In the end, rather than create institutional competence problems, the IPR–PGR dichotomy may in fact serve to promote judicial efficiency.

Any institutional competence concern presupposes that third parties actually make use of the ability to bring subject-matter eligibility challenges before the PTO. The limited number of PGR petitions that have been filed thus far<sup>196</sup> is not sufficiently helpful data. But CBMR, the transitional administrative program for business methods that is also open to subject-matter eligibility challenges,<sup>197</sup> is already in heavy use.<sup>198</sup> And since the AIA-created post-grant proceedings were made available in March 2013, three of the first eleven final CBMR decisions handed down were decided on patentable-subject-matter grounds.<sup>199</sup> Moreover, post-grant proceedings disproportionality mine the following three fields:<sup>200</sup> Electrical/Computer,<sup>201</sup> Mechanical/Business Methods,<sup>202</sup>

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194. Cf. 28 U.S.C. § 1295(a)(4)(A) (2012) (granting Federal Circuit appellate jurisdiction over patent-related matters).

195. “There are . . . two coexisting doctrines of precedent: a narrow one for getting rid of troublesome decisions, and a broad one for taking advantage of helpful decisions.” David L. Shapiro, In Defense of Judicial Candor, 100 Harv. L. Rev. 731, 734 (1987) (relying on Karl Llewellyn's argument).

196. See U.S. Patent & Trademark Office, AIA Progress, supra note 154, at 1 (noting nine PGRs have been filed as of June 18, 2015).

197. See supra notes 89–98 and accompanying text (describing CBMR and comparing and contrasting with IPR and PGR).

198. See U.S. Patent & Trademark Office, AIA Progress, supra note 154, at 1 (demonstrating 356 petitions of CBMR have been instituted as of June 18, 2015).

199. See Riley, Stroud & Totten, supra note 60, at 271–72 (listing CBMR final decisions and corresponding statutory provision upon which each decision was based).

200. See U.S. Patent & Trademark Office, AIA Progress, supra note 154, at 1 (categorizing AIA petitions by technology).

201. The Electric/Computer category includes Patent Technology Centers 2100, 2400, 2600, and 2800. *Id.* These Technology Centers are, respectively: Computer Architecture, Software, and Information Security; Computer Networks, Multiplex Communication, Video Distribution, and Security; Communications; and Semiconductors, Electrical and Optical Systems and Components. Patent Technology Centers, U.S. Patent & Trademark Office, [http://www.uspto.gov/about/contacts/phone\\_directory/pat\\_tech/](http://www.uspto.gov/about/contacts/phone_directory/pat_tech/)



and Bio/Pharma.<sup>203</sup> Given that the validity of business method, pharmaceutical, genetic, and software patents have all recently been before the Supreme Court,<sup>204</sup> those seeking to challenge a patent's validity through the PTO *will* likely look to bring § 101 challenges. This is particularly true given not only the cost-saving nature of these proceedings but also the fact that thus far third parties have been extraordinarily successful at invalidating patents at issue through both IPR<sup>205</sup> and CMBR.<sup>206</sup> Third-party challengers could use PGR to similar effect for subject-matter eligibility questions.

Concerns that the PTO will develop its own conception of § 101, however, may be irrelevant: Final written IPR and PGR decisions are appealable to the Federal Circuit.<sup>207</sup> If that appeal is predicated on subject-matter eligibility, a question of law, the Federal Circuit is under no obligation to accord any deference to the PTO.<sup>208</sup> Nor is the Supreme

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[<http://perma.cc/N4WA-R845>] [hereinafter U.S. Patent & Trademark Office, Centers] (last modified Feb. 17, 2010, 12:34 PM).

202. The Mechanical/Business Methods category includes Patent Technology Centers 3600 and 3700. U.S. Patent & Trademark Office, AIA Progress, *supra* note 154, at 1. These Technology Centers are, respectively: Transportation, Construction, Electronic Commerce, Agriculture, National Security and License & Review; and Mechanical Engineering, Manufacturing, Products. U.S. Patent & Trademark Office, Centers, *supra* note 201.

203. The Bio/Pharma category includes Patent Technology Center 1600. U.S. Patent & Trademark Office, AIA Progress, *supra* note 154, at 1. This Technology Center is designated for Biotechnology and Organic Chemistry. U.S. Patent & Trademark Office, Centers, *supra* note 201.

204. See *supra* section 1.B.1 (discussing four recent Supreme Court decisions).

205. Petitions for IPR are instituted for “at least one challenged claim 84 percent of the time.” Love & Ambwani, *supra* note 163, at 94. Moreover, of 160 claims on the merits, “the PTAB eliminated all *instituted* claims almost 78 percent of the time. Among the same group, the PTAB eliminated all claims *challenged* in the petition 65 percent of the time, giving petitioners a complete victory almost two-thirds of the time that they pursued their IPRs to a final decision.” *Id.* at 101.

206. With eleven CMBR petitions reaching final decision, the PTAB “cancel[ed] all 236 claims at issue.” Riley, Stroud & Totten, *supra* note 60, at 271. This is especially significant as the success of three of those petitions was founded on § 101. *Id.* at 272.

207. 35 U.S.C. §§ 319, 329 (2012).

208. Subject-matter eligibility challenges are reviewed *de novo*. *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1369 (Fed. Cir. 2011); accord *In re Roslin Inst. (Edinburgh)*, 750 F.3d 1333, 1335 (Fed. Cir. 2014) (noting standard of review); *Fort Props., Inc. v. Am. Master Lease LLC*, 671 F.3d 1317, 1320 (Fed. Cir. 2012) (same). This is unlike a question of fact, which is reviewed under an arbitrary-and-capricious standard. *Dickinson v. Zurko*, 527 U.S. 150, 152 (1999). Notably, the Federal Circuit expressed the view that the PTO should not be accorded deference on questions of fact. See *In re Zurko*, 142 F.3d 1447, 1459 (Fed. Cir. 1998) (determining heightened level of scrutiny should apply when reviewing decisions of PTO), *rev'd sub nom. Zurko*, 527 U.S. 150; see also Clarisa Long, *The PTO and the Market for Influence in Patent Law*, 157 U. Pa. L. Rev. 1965, 1975–79 (2009) (discussing conflict between PTO and Federal Circuit over judicial deference). And even post-*Zurko*, significant reversal rates continue to exist. Indeed, 13.64% of all patent cases and 32.58% of published patent cases decided post-*Zurko* through December 2009 were reversed. Jeffrey M. Samuels & Linda B. Samuels, *The*

Court, which has a newfound interest in issues of patent law—especially those involving the judicial exceptions.<sup>209</sup> Ultimately, if the patentable-subject-matter question merits careful consideration and debate, and is sufficiently significant, it will be appealed to a court able to render a decision *de novo*. As a result, the same outcome will be reached regardless of whether the claim originated in the district court or before the PTO.<sup>210</sup> Moreover, parties will be unlikely to appeal the PTO decisions that concern more straightforward subject-matter eligibility questions. Keeping those cases from Article III judges' dockets could therefore serve to increase judicial efficiency. It may also, as the next section suggests, result in a spike of patent litigation.

2. *Increasing Litigation Under the Subject-Matter Eligibility Challenge.* — While overall patent suits may be in decline,<sup>211</sup> there is potential for the nine-month barrier to substantially impact the volume of litigation. If third parties choose to see an IPR through to final written decision, they are barred from subsequently bringing an invalidity action before the courts on grounds that “reasonably could have [been] raised” before the PTO.<sup>212</sup> Congress adopted the estoppel provision of IPR as a means of preventing serial suits.<sup>213</sup> The IPR–PGR dichotomy, however, allows a third party to “game the system,” skirting the impediment to bringing a subsequent suit. Third parties can first challenge a patent on novelty or nonobviousness grounds through IPR<sup>214</sup> at a substantially reduced cost.<sup>215</sup> And, should petitioners lose, they can then proceed to bring a subject-matter eligibility challenge on the same patent before the courts—because it is impossible that they “reasonably [could] have raised” § 101 claims at IPR. Leaving this loophole for third parties to bring a new claim, one that may overlap substantially with novelty and nonobvious-

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Impact of *Dickinson v. Zurko* on Federal Circuit Review of USPTO Board Decisions: An Analytic and Empirical Analysis, 20 Fed. Cir. B.J. 665, 675, 677–78 tbls.2 & 5 (2011).

209. E.g., Peter Lee, Patent Law and the Two Cultures, 120 Yale L.J. 2, 43 (2010) (“The Supreme Court’s deference to Federal Circuit jurisprudence, as well as its general indifference to patent matters, appears to have ended.”); supra section I.B.1 (discussing Supreme Court’s recent attentiveness to patentable subject matter).

210. Further, if the PTO produces a decision based on novel reasoning that the Federal Circuit agrees with, the opinion can simply be affirmed. The Federal Circuit can even do so without producing a written opinion under Rule 36 of the Federal Circuit Rules of Practice. Fed. Cir. R. 36.

211. Jason Rantanen, Pending Patent Cases in Decline, Patently-O (Nov. 7, 2014), <http://patentlyo.com/patent/2014/11/open-patent-cases.html> [<http://perma.cc/BKU9-35CR>].

212. 35 U.S.C. § 315(e).

213. See Matal, Guide Part II, supra note 82, at 603–04 (discussing concern throughout AIA drafting process of potential for “serial challenges to patents” and legislature’s adoption of estoppel provisions in response).

214. 35 U.S.C. § 311(b).

215. See supra notes 157–161 and accompanying text (noting cost savings of post-grant proceedings).

ness claims,<sup>216</sup> may often lead to litigation after IPR is completed. Whether the IPR–PGR dichotomy will increase judicial efficiency and whether serial challenges will become commonplace is still uncertain given the limited number of PGR petitions thus far.<sup>217</sup> As Part III addresses, however, Congress could avoid many of the foreseeable negative effects of the IPR–PGR dichotomy through reform of the AIA.

### III. MITIGATING NEGATIVE CONSEQUENCES OF THE IPR–PGR DICHOTOMY

Five years of modification has improved the PGR structure,<sup>218</sup> but the IPR–PGR dichotomy still risks negative consequences for the field of patent law. Fortunately, Congress may be able to address these consequences while retaining the many positive attributes of PGR. Simply allowing subject-matter eligibility claims before the PTO opens a door previously closed to third parties: a cost-effective defensive and offensive use of the judicial exceptions.<sup>219</sup> And seemingly, limiting subject-matter eligibility challenges to a discrete window is necessary as it incentivizes parties to bring claims in a contentious area of law early.<sup>220</sup> But despite these attributes, two-and-a-half years after taking effect, only nine petitions for PGR have been filed.<sup>221</sup> Neither IPR (at 3,083 petitions) nor CMBR (at 356 petitions) are similarly underutilized,<sup>222</sup> a particularly telling statistic given CMBR also permits subject-matter eligibility challenges to business method patents.<sup>223</sup>

Even if PGR petitions become more commonplace as more patents filed post-AIA are issued, the limited nine-month timeframe will still necessarily curtail the number of PGR petitions filed. Allowing subject-matter eligibility challenges in the fields of biotechnology and computer software, which cannot be addressed by CMBR, has the potential to

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216. See *supra* note 62 and accompanying text (discussing overlap between subject-matter eligibility and novelty or nonobviousness).

217. See *supra* note 154 and accompanying text (noting number of IPR and PGR petitions).

218. See *Matal*, Guide Part II, *supra* note 82, at 601–05 (detailing history of post-grant proceeding provisions of AIA).

219. See *supra* sections II.B.1–2 (analyzing two uses of subject-matter eligibility challenges before PTO).

220. See *supra* sections II.A.2–3 (contextualizing nine-month barrier).

221. PGR is limited to first-to-file patents, which only became available as of March 16, 2013. AIA, Pub. L. No. 112-29, secs. 3(n)(1), 6(f)(2)(a), 125 Stat. 284, 293, 311 (2011). As of June 18, 2015, nine PGR petitions have been filed. U.S. Patent & Trademark Office, AIA Progress, *supra* note 154, at 1.

222. U.S. Patent & Trademark Office, AIA Progress, *supra* note 154, at 1.

223. See *supra* note 97 and accompanying text (noting permissible grounds for challenging validity for CBMR). Already, three CMBR final written decisions have been predicated on § 101 grounds. See *supra* note 199 and accompanying text (noting as much).

streamline and even clarify many areas of the judicial exceptions.<sup>224</sup> Though the Supreme Court has addressed the boundaries of the judicial exceptions four times since 2010,<sup>225</sup> these issues are far from resolved.<sup>226</sup> Given the enormity of the reforms to patent law recently instituted by the AIA,<sup>227</sup> radical changes to the structure of PGR to increase its use may prove ill-advised and unwelcome.<sup>228</sup> This Part therefore first suggests a moderate approach before advocating for more significant reform: section III.A proposes expanding availability of PGR to three years while section III.B recommends enacting a provision that would, for the life of a patent, give a party accused of infringement nine months to bring a PGR petition.

A. *Expanding the Timeline: More than a Nine-Month Barrier*

Designing the structure of the post-grant proceedings adopted by the AIA proved difficult. Early bills, backed by the PTO, “proposed an all-issues post-grant review that could be invoked throughout the life of a patent.”<sup>229</sup> The impetus behind such broad-sweeping reform was testimony from insiders of the high-technology field; they argued that confining post-grant review to nine months would deprive administrative proceedings of all utility.<sup>230</sup> But backing for these provisions was short-lived: “[L]ife-of-the-patent post-grant review . . . drew a sharply negative reaction from many businesses, universities, and patent-law professional

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224. See *supra* section II.C.1 (discussing institutional competence and expected resultant effect of having PTO address subject-matter eligibility challenges).

225. See *supra* section I.B.1 (analyzing *Bilski*, *Mayo*, *Myriad*, and *Alice*).

226. Even in the wake of *Alice*, there is still uncertainty at the district court level about the patentability of software. Compare *Amdocs (Isr.) Ltd. v. Openet Telecom, Inc.*, 56 F. Supp. 3d 813, 819–25 (E.D. Va. 2014) (rejecting validity of software patent as it claimed abstract idea), with *Card Verification Sols., LLC v. Citigroup, Inc.*, No. 13 C 6339, 2014 WL 4922524, at \*4–5 (N.D. Ill. Sept. 29, 2014) (ruling software patent is plausibly eligible for sufficiently transforming abstract idea). The patentability of genetic material also did not stop at *Myriad*. The Federal Circuit recently held as patent ineligible single-stranded DNA fragments (known as primers) based on a naturally occurring breast cancer gene. In re *BRCA1- and BRCA2-Based Hereditary Cancer Test Patent Litig.*, 774 F.3d 755, 759–61 (Fed. Cir. 2014). In the same case, the court also determined that a method claim for comparing a patient’s BRCA1 sequence to the wild type (naturally occurring) version to identify any mutations the patient may have was also invalid for failing to add “enough” to the abstract idea of “comparing . . . sequences and determining the existence of alterations” to render it patent eligible. *Id.* at 762–64.

227. See *supra* notes 10–18 and accompanying text (recounting important provisions of AIA).

228. For example, a recent post-AIA patent reform bill died in Congress when it reached the Senate. See Ashby Jones, Patent Overhaul Effort Stalls, *Wall St. J.* (Aug. 17, 2014, 7:13 PM), <http://www.wsj.com/articles/patent-overhaul-effort-stalls-1408317189> (on file with the *Columbia Law Review*) (“The patent overhaul effort has expired.”).

229. Matal, *Guide Part II*, *supra* note 82, at 601.

230. *Id.* at 602.

organizations.”<sup>231</sup> Even the PTO pulled its initial support.<sup>232</sup> As a result, PGR was strictly limited in subsequent proposals: first to twelve months and then eventually to the enacted nine-month period.<sup>233</sup>

This legislative history suggests administrative proceedings unrestricted by time and challenge type is an untenable congressional solution.<sup>234</sup> As a result, subject-matter eligibility challenges before the PTO will not be granted the same freedom accorded motions for declaratory judgment of invalidity.<sup>235</sup> At nine months, PGR is the most severe of the time restrictions that exist in intellectual property law.<sup>236</sup> For example, the statutes of limitations in copyright<sup>237</sup> and trade secret<sup>238</sup> law are set at three years. And patent law presumes that a six-year delay in filing an infringement claim requires application of the equitable doctrine of laches.<sup>239</sup> Though imperfectly symmetrical to the nine-month barrier,<sup>240</sup> these statutes of limitations perhaps represent a suitable benchmark for how long PGR should be available; they at least suggest PGR is inappropriately short.

A three-year PGR process would continue to encourage the early filing of subject-matter eligibility challenges. Because initial motions may be denied on technicalities, “it is wise to commence actions, if at all possible, with at least six or eight months to spare” when faced with any time restriction.<sup>241</sup> Thus, with an extended three-year timeframe, third parties would still be motivated to bring PGR petitions within two-and-a-half years. Further, the number of PGR petitions—and consequently,

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231. *Id.*

232. See *id.* at 603 (“[T]he USPTO’s enthusiasm for undertaking additional post-issuance responsibilities waned . . .”).

233. See *id.* at 604 (noting proposals put forth by both House and Senate from 2007–2010); see also 35 U.S.C. § 321(c) (2012) (codifying ultimately enacted nine-month timeframe).

234. Both houses of the legislature were unable to promote an all-issues post-grant proceeding. Matal, *Guide Part II*, *supra* note 82, at 604. The Senate in particular resisted restrictions to post-grant proceedings but was forced to “accede[] to opposition demands.” *Id.*

235. See *supra* note 141 and accompanying text (remarking motions for declaratory judgment are unrestricted by time).

236. This remains true even considering attentive third parties may potentially have almost two years to consider filing a petition for PGR. See *supra* section II.A.1 (discussing timeframe of nine-month barrier).

237. 17 U.S.C. § 507(b) (2012).

238. Unif. Trade Secrets Act § 6, 14 U.L.A. 649 (2005).

239. *A.C. Aukerman Co. v. R.L. Chaides Constr. Co.*, 960 F.2d 1020, 1035 (Fed. Cir. 1992). But see *supra* note 125 (noting laches may soon no longer be available for patent-infringement cases).

240. See *supra* section II.A.2 (importing lessons from statutes of limitations to nine-month barrier).

241. Siegel, *supra* note 115, § 33, at 43. It is noteworthy that, with the current nine-month barrier, this advice counsels third parties to bring their claims within one to three months post-issuance—a near impossible task.

subject-matter eligibility challenges—would likely rise simply by virtue of the additional time to learn of a patent’s existence. Though large corporations are better suited to making offensive use of PGR,<sup>242</sup> even they may have difficulties learning of the patent in time to meet a short, nine-month timeline.<sup>243</sup> Extending PGR to three years reduces that burden, thereby allowing big businesses to more easily bring strategic subject-matter eligibility challenges. Moreover, some smaller businesses and individual inventors may feasibly be able to make tactical use of administrative subject-matter eligibility challenges. In that respect, a three-year PGR timeline may therefore help level the corporate playing field.<sup>244</sup>

A longer timeframe may also mean administrative subject-matter eligibility challenges are more likely to be brought in response to infringement claims.<sup>245</sup> Product-producing companies prefer to “begin litigating their patents early in the patent term,” possibly as a means “to fend off competitors that are developing or introducing similar products.”<sup>246</sup> Waiting nine months to assert a patent may be minimally invasive, but patentees actively making use of their invention may be wary waiting three years. Financially speaking, the increased delay might mean an additional two years and three months of lost profits to competitors. Smaller companies especially may be unable to afford continuing losses to an allegedly infringing competitor without receiving licensing fees. As a result, increasing the time allowed to bring a PGR petition may correlate with an increase in defensive subject-matter eligibility challenges.

Whether this increase will be significant, however, is uncertain.<sup>247</sup> With regard to bringing administrative subject-matter eligibility challenges as a response to NPE-instigated suits, the effect may be especially minimal. NPEs are more reticent than product-producing companies to

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242. See *supra* section II.B.2 (discussing strategic use of PGR).

243. See *supra* note 113 (noting Mark Chandler of Cisco Systems’s testimony to Congress that it is extraordinarily difficult for companies to monitor recently issued patents and patent applications for relevance).

244. This was an express purpose behind the enactment of the AIA. See *supra* notes 157–161 and accompanying text (addressing impetus of AIA to offer cost-saving alternatives to litigation).

245. See *supra* section II.B.1 (acknowledging improbability of PGR being used as defensive maneuver).

246. Love, *supra* note 190, at 1316, 1331 (using term “product-producing company” to mean companies that make use of their patent, unlike NPEs).

247. Despite the speed with which patent-producing companies begin asserting their patents, they still only initiate suits on average 12.1 years before their patents expire. *Id.* at 1331 & n.93. With patent terms running twenty years post-filing, patent-producing companies therefore begin enforcement of their patent usually 7.9 years post-filing. 35 U.S.C. § 154(a)(2) (2012). Even with some patents taking as long as three years to issue, the average patent-producing company will still not bring suit before a three-year PGR time limit runs out. See U.S. Patent & Trademark Office, Performance, *supra* note 110 (noting total patent pendency rate from 2010–2014).

assert patents early, delaying filing suit, on average, until “less than nine years from expiration.”<sup>248</sup> As a result, increasing the barrier to three years would make little difference; most NPE-alleged infringers would still be left only with the option of filing a counterclaim of invalidity predicated on subject-matter eligibility through the courts. For some defendants, this may be especially unfortunate as the judicial exceptions could prove an effective tool against NPEs.<sup>249</sup> At the very least, a three-year PGR process would result in a modest overall increase in administrative subject-matter eligibility challenges. To respond to the above concerns, however, Congress can also enact a more sweeping provision: an “infringement exception” to the PGR time barrier, which would cause a more pronounced surge in defensive use of administrative subject-matter eligibility challenges.

B. *An Infringement Exception: Allowing Subject-Matter Eligibility in Response to IPR*

When “all issues,” life-of-the-patent post-grant review was initially proposed to Congress, it was not without limitations; early bills restricted these proceedings to “any party that had been accused by the patent owner of infringement or who presented a ‘substantial reason to believe’ that the patent caused him ‘significant economic harm.’”<sup>250</sup> The former option functioned similarly to a statute of limitations restricted by a discovery rule.<sup>251</sup> Upon notification of an infringement suit, third parties had six months to file a PGR petition; strategic PGRs were limited to nine months.<sup>252</sup> Congress ultimately decided against passing such an infringement exception because of opposition to initial proposals and the PTO reversing course on support for early bills.<sup>253</sup> But the need to increase the utility of PGR may call for the legislature to reconsider.<sup>254</sup>

The cost-saving nature of post-grant proceedings suggests institution of the infringement exception would result in a significant spike in PGR’s use, particularly if the asserted patent is vulnerable to a subject-matter

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248. Love, *supra* note 190, at 1331.

249. See *supra* notes 192–193 and accompanying text (discussing potential usefulness of subject-matter eligibility challenges against NPEs).

250. Matal, Guide Part II, *supra* note 82, at 601–02 (footnote omitted) (quoting Patent Reform Act of 2007, S. 1145, 110th Cong. sec. 6(e), § 322(2)(A) (2007); Patent Reform Act of 2007, H.R. 1908, 110th Cong. sec. 6(e), § 322(2)(A) (as introduced); Patent Reform Act of 2006, S. 3818, 109th Cong. sec. 6(a)(1), § 312(2) (2006)).

251. See *supra* note 119 and accompanying text (defining discovery rule).

252. Patent Reform Act of 2005, H.R. 2795, 109th Cong. sec. 9(f)(1), § 323 (2005).

253. Matal, Guide Part II, *supra* note 82, at 601–05 (delineating response to initial House bill); see also *supra* notes 229–233 and accompanying text (explaining how support for initial bill waned).

254. This would, of course, require overcoming opposition from “businesses, universities, and patent-law professional organizations.” Matal, Guide Part II, *supra* note 82, at 602. How such opposition could be overcome is beyond the scope of this Note.

eligibility challenge.<sup>255</sup> Large and small companies alike will be able to make use of this defense, perhaps even against NPEs. Thus far, NPEs have not been the target of post-grant proceedings they were expected to be.<sup>256</sup> The infringement exception could remedy this concern, as NPE-owned patents may be particularly susceptible to the judicial exceptions.<sup>257</sup> Notably, the aforementioned hurdle to a defendant's use of PGR as a response to an infringement action—the inability to stay parallel litigation<sup>258</sup>—would not be a setback with the infringement exception. Courts are only barred from staying consideration of the plaintiff patent-owner's preliminary injunction motion if the infringement action was “filed within 3 months after the date on which the patent is granted.”<sup>259</sup> Where the infringement exception would increase defensive use of administrative subject-matter eligibility challenges, at nine months post-issuance, the restriction would not apply.

Critics of this approach, particularly the PTO,<sup>260</sup> worry the infringement exception would create a flood of PGR petitions. But, post-grant proceedings predicated on novelty and nonobviousness are already available for the lifetime of the patent.<sup>261</sup> Thus, the overall growth of proceedings before the PTO should not be as extensive as critics fear.<sup>262</sup> The infringement exception's effect is also limited in scope; the PTO should only see an increase in the number of administrative challenges predicated on claims unavailable through IPR, such as subject-matter eligibility.<sup>263</sup> Thus, the infringement exception should expand the number of defensive-PGR petitions without overwhelming the agency tasked with resolving these claims.

In drafting an “all-issues” post-grant proceeding, the legislature considered two extremes: life-of-the-patent challenges or an extremely

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255. See *supra* notes 158–161 and accompanying text (characterizing post-grant proceedings as cheaper alternative to litigation).

256. Gonsalves, Beckett & Leff, *supra* note 129, at 26 (noting “particularly interesting” finding that IPRs were predominantly filed against operating companies and only twenty-five percent of IPRs were filed against patent-asserting entities).

257. See *supra* notes 192–193 and accompanying text (noting type of technologies involved in NPE-instigated litigation and relevance to subject-matter eligibility).

258. See *supra* notes 165–168 and accompanying text (comparing and contrasting use of IPR and PGR as defensive techniques).

259. 35 U.S.C. § 325(b) (2012).

260. Cf. Matal, Guide Part II, *supra* note 82, at 603–04 (“The USPTO began to express concern about its ability to manage the review proceedings proposed by the early bills.”).

261. See 35 U.S.C. § 311(b)–(c) (noting scope and filing deadline of IPR).

262. This is especially true considering that novelty and nonobviousness challenges may overlap with subject-matter eligibility invalidity claims. See *supra* note 62 and accompanying text (noting as much).

263. Compare 35 U.S.C. § 321(b) (noting scope of PGR), with *id.* § 311(b) (same for IPR).



limited post-issuance window.<sup>264</sup> Ultimately, Congress chose the latter.<sup>265</sup> The more efficient solution, however, would be the middle ground—a three-year timeline. This would appease critics who argued a nine-month window would render PGR inoperable in practice,<sup>266</sup> while acknowledging that opening the floodgates of subject-matter eligibility challenges generally may overwhelm the PTO. Additionally, the institution of an infringement exception, though a more drastic measure, will create a more significant surge in PGR use. And though the AIA was passed only four years ago, the legislature has demonstrated willingness to consider further patent reform. While a recent post-AIA bill was unsuccessful in reaching the Executive's desk,<sup>267</sup> Congress is already again considering legislative action.<sup>268</sup> Administrative subject-matter eligibility challenges may yet break through that nine-month barrier.

#### IV. CONCLUSION

Since the 2010 Term, the Supreme Court has repeatedly considered patentable-subject-matter questions. Despite these efforts, ambiguity continues to surround the judicial exceptions. With the institution of a post-grant proceeding known as PGR, claims predicated on this inexact area of law can now be heard before the PTO rather than the courts—but only for nine months. The institution of this barrier draws similarities to statutes of limitations, encouraging third parties to bring claims early. Thus far, imposing such a short time limit to administrative subject-matter eligibility challenges has been extremely effective at restricting their use; only nine PGR petitions have been filed since administrative proceedings became available almost two-and-a-half years ago. As a result, the potential benefits of having the PTO address subject-matter eligibility questions are going unrealized. To help, congressional reform is needed. A more restrained approach would see PGR availability extended to three years while a more ambitious legislature may consider enacting an infringement exception for all-issues review. Both are modest when compared to the fundamental changes to patent law imposed by the AIA. But should Congress act, both may serve to bring clarity to a contentious area of law.

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264. See *supra* notes 229–233 and accompanying text (walking through drafting of PGR).

265. Cf. 35 U.S.C. § 321(c) (granting nine months for bringing PGR petition).

266. See *supra* note 113 (quoting one such critic). With the limited number of PGRs being filed, those critics may have been right.

267. See Jones, *supra* note 228 (discussing bill's demise).

268. See Dennis Crouch, Patent Reform: Innovation Act of 2015, *Patently-O* (Feb. 5, 2015), <http://patentlyo.com/patent/2015/02/patent-reform-innovation.html> [<http://perma.cc/X9R4-SRXL>] (overviewing proposed bill known as the Innovation Act); Dennis Crouch, The Strong Patent Act of 2015 from Senator Coons, *Patently-O* (Mar. 3, 2015), <http://patentlyo.com/patent/2015/03/strong-patent-senator.html> [<http://perma.cc/E4Y9-7Q7G>] (overviewing proposed bill known as the Strong Patents Act).

