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ABSTRACT

According to a recent study, patent litigation has been the target of multiple reform efforts over the past several decades, with mixed results that have left its fundamental dynamics—and problems—stubbornly intact. To make patent litigation more amenable to diagnosis and treatment, this Article proposes setting up a single, specialized Article III patent trial court that has exclusive original jurisdiction over patent cases and is empowered to promulgate its own rules of practice and procedure. Although the suggestion to set up a specialized patent trial court is not new, the existing rationales for doing so focus primarily on enhancing the quality of adjudication and eliminating forum shopping. But the literature has overlooked other potential benefits of such a court. Specifically, it can provide a controlled environment that could: (1) improve the ability of judges and policymakers to diagnose problems in patent litigation by removing certain variables, keeping other variables constant, or mitigating their variance, thereby decreasing the number and influence of potential confounders; and (2) allow for "sandboxing," which can facilitate the adoption of reforms and expand the universe of solutions because the impact of a change that could materially alter the dynamics of patent litigation (and the risk of failure) may remain localized without affecting other parts of the federal court system or raise trans-substantivity concerns. More importantly, the controlled environment provided by a specialized trial court may make it easier to have an iterative diagnosis-treatment cycle, which is necessary for a complex system (like patent litigation) where the initial attempt at diagnosis or reform is unlikely to yield a definitive answer or a lasting solution. It is expected that the

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diagnostic and reform-facilitating benefits of a specialized trial court—when aggregated with the other theorized benefits of specialized courts suggested in the literature—could outweigh the potential downsides, such as a lack of percolation, susceptibility to capture, and tunnel vision from the loss of the generalist perspective.

INTRODUCTION

Here's a puzzle: the patent system has been resilient to changes in the law over the past four decades.[1] Changes in the law—whether statutory, decisional, procedural, or substantive—have failed to materially alter the fundamental dynamics of patent assertion.[2] Complaints about forum shopping, unpredictability, and abusive patent assertions have persisted largely unabated.[3] Given the perennial attempts at reform,[4] such resistance

1. Mark A. Lemley, *The Surprising Resilience of the Patent System*, 95 TEX. L. REV. 1, 1–6 (2016) [hereinafter Lemley, *Resilience*].

2. *Id.* at 2 ("[T]he data show very little evidence that patent owners and challengers are behaving differently because of changes in the law.").

3. *See infra* Part I.

4. *Patent Progress's Guide to Federal Patent Reform Legislation*, PATENT PROGRESS, https://www.patentprogress.org/patent-progress-legislation-guides/patent-progresss-guide-patent-reform-legislation/ (last updated Dec. 4, 2019).

to change is a mystery that warrants greater attention. There may be a variety of reasons why some change in the law fails to have the intended impact or is otherwise ineffective in materially changing patent litigation. It may be the case that, in response to a major change in the law affecting some aspect of patent litigation, its participants shift their strategies, select more hospitable fora, or otherwise respond in a manner that maintains a certain homeostatic set point.[5] Or, maybe the change in the law targets the symptom rather than the underlying cause. Another possibility is that the change in the law is difficult to apply or was unartfully drafted. Or, perhaps, the change in the law had very little practical impact because it did not go far enough or was limited in scope due to opposition by interest groups or other considerations, such as trans-substantivity[6] in the Federal Rules.

On the rare occasion that Congress enacts legislation to reform patent litigation,[7] passing a law that is ultimately ineffective is a costly, wasted opportunity. The same concern applies to the correction of patent law precedents by the United States Court of Appeals for the Federal Circuit—which has exclusive jurisdiction over appeals in patent cases[8]—because en banc decisions are rare.[9] Grants of certiorari by the Supreme Court are rarer still.[10] If changes in the law and reforms are not yielding lasting, material improvements, a threshold question that arises is whether we are accurately diagnosing what is wrong. The literature contains a plethora of theories about how and why certain problems exist in patent litigation and suggestions for solving them.[11] For example, some of the more popular explanations for the problem of abusive patent assertions include: the high cost of patent

5. Lemley, *Resilience*, *supra* note 1, at 31 ("Changes that move patent law in one direction can produce complex feedback effects that return the system to equilibrium.").

6. "A procedural rule is trans-substantive if it applies equally to all cases regardless of substance. . . . The vast majority of the Federal Rules are trans-substantive, with a few minor exceptions." David Marcus, *The Past, Present, and Future of Trans-Substantivity in Federal Civil Procedure*, 59 DEPAUL L. REV. 371, 376 (2010) (footnote omitted).

7. *See* John Lauritsen, *Good Question: Why Is It So Hard To Pass A Law?*, CBS MINNESOTA (June 23, 2016 10:56 PM), https://minnesota.cbslocal.com/2016/06/23/good-question-passing-bills/ ("During this session of Congress, only 2 percent of bills introduced have become law.").

8. 28 U.S.C. § 1295(a)(1).

9. According to one estimate, the Federal Circuit issued en banc opinions in patent cases approximately 0.3% of the time from 1982 to 2010. Ryan Vacca, *Acting Like an Administrative Agency: The Federal Circuit En Banc*, 76 MO. L. REV. 733, 736–38 (2011).

10. *The Supreme Court at Work*, SUP. CT. OF THE U.S., https://www.supremecourt.gov/about/courtatwork.aspx (last visited June 18, 2021) ("Plenary review, with oral arguments by attorneys, is currently granted in about 80 . . . cases each Term . . . .").

11. *See infra* Part I.

litigation, suboptimal substantive patent law, poor patent quality, unpredictable outcomes, and forum shopping.[12]

However, it is difficult to figure out which problems are the actual underlying causes rather than the symptoms, and whether a proposed reform or a change in precedent will have a material impact. Given the complexity of patent litigation, accurate diagnosis can be difficult because of possible confounders or other factors that can obscure the source of the problem. Misdiagnoses may lead to ineffective procedural reforms that are prone to circumvention[13] (e.g., the joinder rule for patent cases).[14] With other problems (e.g., claim construction), it may be difficult to ascertain the extent to which the problem is attributable to the characteristics of the trial judge,[15] the applicable law (e.g., suboptimal doctrines, standard of review), something else, or some combination thereof.

But even if an accurate diagnosis were possible, the sheer number of moving parts and the complexity of patent litigation can introduce inertia and resistance to taking action. The lobbying efforts of different stakeholders and interest groups within the patent system (e.g., high-tech, big pharma) can make it difficult to enact new legislation.[16] In addition, because patent litigation is conducted in generalist federal courts, concerns about collateral damage beyond the patent system (e.g., impacts on other types of litigation and trans-substantivity in the Federal Rules) can stymie change or limit the scope of any changes that are adopted.[17] And even if a change in the law were to occur without it being limited or watered down, the complexity of the patent system may make it difficult to accurately predict whether the change will be effective or work as intended; there is a good chance that the initial solution may fall short in some way.

To enhance diagnostic power and facilitate material change in the dynamics of patent litigation, one option that has evaded meaningful consideration in the literature is to create a controlled environment in which the number and magnitude of possible confounders are reduced, and the barriers to adopting—and iterating—solutions are lowered. For any complex system—whether it be patent litigation or the human body—diagnosis and treatment are necessarily iterative processes. The initial diagnosis of a complex system may often be incomplete, such that the treatments may need

12. *See infra* Part I.
13. *See infra* Part II.A.2.
14. 35 U.S.C. § 299.
15. *See infra* Part II.A.3.
16. *See infra* note 115 and accompanying text.
17. *See infra* Part II.B.

to be refined or changed, which may, in turn, yield more refined diagnoses and treatments in an iterative fashion.

For patent litigation, one way to implement such a controlled environment would be to establish a single, specialized Article III patent trial court that has exclusive original jurisdiction over patent cases and is empowered to promulgate its own rules of practice. This specialized trial court may mitigate diagnostic confounders arising from variations in: (1) patent litigation procedure (whereby the Federal Rules of Civil Procedure ("FRCP") and the current patchwork of patent local rules[18] in multiple district courts would be replaced by a single set of procedural rules tailored to patent cases); (2) venue (whereby litigants will be unable to evade reforms by forum shopping, and, by removing the need for forum selling, judge-to-judge variance in case management practices may decrease); and (3) trial judge experience (whereby all the judges of the specialized trial court will be (or become) highly experienced in patent case adjudication).

The controlled environment of a specialized patent trial court can improve diagnosis by removing certain variables, keeping some variables constant, and/or mitigating their variance. And once a diagnosis is obtained, the standalone nature of the proposed patent trial court may facilitate the adoption of reforms or changes to the law because the impact of the changes and the risk of a potential failure may remain localized to patent cases, rather than spreading to or affecting other litigation in the federal court system. That is, the specialized patent trial court would operate as a "sandbox"[19] that would allow iterative diagnosis and treatment cycles to occur more readily than is possible today. A specialized patent trial court may thus encourage (or, at the very least, permit) more experimentation with patent litigation procedure—whether by the patent trial court itself, the Federal Circuit, the Supreme Court, or Congress. In addition, the proposed patent trial court would be empowered to promulgate its own rules of practice and procedure. This is an important feature for facilitating iterative changes to the rules governing patent litigation, because the rule changes could be adopted by the patent trial court itself without having to go through the Judicial Conference

18. *See* Megan M. La Belle, *The Local Rules of Patent Procedure*, 47 ARIZ. ST. L.J. 63, 87 (2015) [hereinafter La Belle, *Local Rules*] ("[T]hirty district courts in twenty different states have exercised the discretion granted by FRCP 83 and adopted comprehensive local patent rules."); *see also id.* at 87 n.175 (listing districts). The terms "patent local rules" and "local patent rules" are interchangeable, and both are used by courts to refer to a special set of local rules for patent cases. *See, e.g.*, *Patent Local Rules*, U.S. DIST. CT. FOR THE N. DIST. OF CAL. (Nov. 4, 2020), https://www.cand.uscourts.gov/rules/patent-local-rules/ [hereinafter *N.D. Cal. Patent Rules*]; *Local Patent Rules*, U.S. DIST. CT. FOR THE N. DIST. OF OHIO, https://www.ohnd.uscourts.gov/local-patent-rules (last visited June 18, 2021). The present Article uses the term "patent local rules" throughout.

19. *See infra* note 85 and accompanying text.

or wait for an act of Congress, which can take years and lead to changes being held up or watered down due to lobbying by stakeholders both within and outside the patent system.[20]

Although several major economies around the world already have specialized courts of first instance for patent disputes,[21] the idea of setting up a specialized patent trial court has thus far failed to gain traction in the United States. In the literature, the primary justifications for setting up such a court have focused primarily on improving the quality of adjudication[22] and eliminating forum shopping at the trial-court level.[23] What has been largely overlooked in the literature on specialized courts is that specialization can serve as a tool for facilitating diagnosis and reform because it provides an opportunity to create a controlled environment. Whenever specialized courts are proposed, some of the more common concerns voiced by commentators include the lack of percolation, susceptibility to capture, and "tunnel vision" from the loss of the generalist perspective.[24] Although greater specialization might create additional problems, the benefits are likely to outweigh the potential downsides when the diagnostic and reform-facilitating effects are aggregated with the other benefits of specialized courts that have been previously identified in the literature.[25]

The benefits of a controlled environment provided by a suitably designed, specialized court are not limited to patent litigation. Its principles may be adapted to other areas of the law where there is a need to reduce the number of variables and moving parts in order to make it easier to: (1) figure out what is wrong; (2) craft appropriate reforms or changes in the law (whether statutory or decisional law); and (3) iterate as necessary.

This Article proceeds in three Parts. Part I discusses the diagnostic difficulties associated with patent reform. Part II explains how a controlled environment, in the form of a specialized Article III patent trial court, can ameliorate the difficulties with diagnosing and treating problems in patent litigation. Part III addresses potential concerns and objections to the proposal and is followed by the Conclusion.

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20. *See infra* notes 230–245 and accompanying text.

21. Countries that have specialized trial courts for patent litigation include Japan, *see* Yoshiyuki Inaba, Hiroshi Nemoto, Makoto Okada & Atsushi Sato, *Japan: Patent Litigation*, THE LEGAL 500, https://www.legal500.com/guides/chapter/japan-patent-litigation/ (last visited June 18, 2021), and the United Kingdom, *see* Matthew Bultman, *What You Need To Know About Patent Litigation In The UK*, LAW360 (Aug. 6, 2018, 8:34 PM EDT), https://www.law360.com/articles/1070615/what-you-need-to-know-about-patent-litigation-in-the-uk.

22. *See infra* notes 252–262 and accompanying text.

23. *See infra* note 53 and accompanying text.

24. *See infra* Part III; *see generally* LAWRENCE BAUM, SPECIALIZING THE COURTS 32–41 (John M. Conley & Lynn Mather eds., 2011) (discussing effects of specialization).

25. *See infra* notes 83, 253, 256, 262 and accompanying text.

I. THE SISYPHEAN NATURE OF PATENT REFORM

The United States patent system has undergone several major reconfigurations since its creation in the eighteenth century.[26] The current iteration of the patent system emerged in 1982 with the creation of the United States Court of Appeals for the Federal Circuit.[27] Vested with exclusive jurisdiction over appeals in patent cases,[28] the Federal Circuit was created with the expectation that it "will provide nationwide uniformity in patent law, will make litigation results more predictable and will eliminate the expensive and time-consuming forum shopping that currently characterizes litigation in the field."[29]

In furtherance of these goals, the Federal Circuit issues around 120 patent-related precedents per year,[30] which are periodically modified, abrogated, and supplemented by en banc rehearings, Supreme Court case law, and acts of Congress. The changes have affected both substantive patent law and patent litigation procedure, including: liability issues (e.g., claim construction,[31] obviousness,[32] patentable subject matter[33]); remedies (e.g., injunctions,[34] damages,[35] willfulness,[36] attorney fee awards[37]); procedural

26. The first patent statute was passed in 1790 by the First Congress. An Act to promote the progress of useful Arts, ch. 7, 1 Stat. 109 (1790).

27. Federal Courts Improvement Act of 1982, Pub. L. No. 97-164, 96 Stat. 25.

28. 28 U.S.C. § 1295(a)(1).

29. THE NINTH ANNUAL JUDICIAL CONFERENCE OF THE UNITED STATES COURT OF CUSTOMS AND PATENT APPEALS, 94 F.R.D. 347, 358 (1982) (remarks of Rep. Robert W. Kastenmeier).

30. *See* Jason Rantanen, *Federal Circuit Statistics–2020 edition*, at figs.4 & 5, PATENTLY-O (Jan. 4, 2021), https://patentlyo.com/patent/2021/01/federal-circuit-statistics.html.

31. *E.g.*, Teva Pharms. USA, Inc. v. Sandoz, Inc., 574 U.S. 318 (2015); Markman v. Westview Instruments, Inc., 517 U.S. 370 (1996); Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448 (Fed. Cir. 1998), *abrogated in part by* Teva Pharms. USA, Inc. v. Sandoz, Inc., 789 F.3d 1335 (Fed. Cir. 2015).

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

33. *E.g.*, Alice Corp. Pty. v. CLS Bank Int'l, 573 U.S. 208 (2014); Mayo Collaborative Servs. v. Prometheus Lab'ys, Inc., 566 U.S. 66 (2012); State St. Bank & Trust Co. v. Signature Fin. Grp., Inc., 149 F.3d 1368 (Fed. Cir. 1998), *abrogated by* In re Bilski, 545 F.3d 943 (Fed. Cir. 2008).

34. *E.g.*, eBay Inc. v. MercExchange, L.L.C., 547 U.S. 388 (2006).

35. *E.g.*, WesternGeco LLC v. ION Geophysical Corp., 138 S. Ct. 2129 (2018); Lucent Techs., Inc. v. Gateway, Inc., 580 F.3d 1301 (Fed. Cir. 2009); Rite-Hite Corp. v. Kelley Co., 56 F.3d 1538 (Fed. Cir. 1995) (en banc).

36. *E.g.*, Halo Elecs., Inc. v. Pulse Elecs., Inc., 136 S. Ct. 1923 (2016); In re Seagate Tech., LLC, 497 F.3d 1360 (Fed. Cir. 2007) (en banc), *abrogated by Halo*, 136 S. Ct. at 1928; Underwater Devices Inc. v. Morrison–Knudsen Co., 717 F.2d 1380 (1983), *overruled by Seagate*, 497 F.3d at 1365.

37. *E.g.*, Octane Fitness, LLC v. ICON Health & Fitness, Inc., 572 U.S. 545, 548 (2014) (abrogating Brooks Furniture Mfg., Inc. v. Dutailier Int'l, Inc., 393 F.3d 1378 (Fed. Cir. 2005)).

issues (e.g., declaratory judgment jurisdiction,[38] joinder of parties,[39] venue[40]); and proceedings at the United States Patent and Trademark Office ("PTO") (e.g., Inter Partes Review[41]).

However, as observed by Mark Lemley, the patent system has exhibited a puzzling resilience in spite of these changes, whereby the fundamental dynamics pertaining to the procurement and assertion of patents have not materially changed in recent decades.[42] Indeed, it has long been "business as usual": the rate of patent issuance has steadily increased from fewer than 60,000 per year in the early 1980s to around 300,000 per year in 2015,[43] and the number of patent suits filed per year have more than tripled from 1982 to 2010.[44] At the same time, patent quality has not substantially improved in the past four decades; patents are still invalidated almost half of the time in court.[45] Also, the patentee win rate in litigation has remained static at around 25%.[46] Notably, concerns about abusive patent assertions have not abated. Of particular concern are suits filed by patent assertion entities ("PAEs")—colloquially known as "patent trolls"—which have been the focus of multiple studies by the Federal Trade Commission since 2003,[47] numerous patent reform bills in recent decades,[48] and various reforms enacted in the 2011

38. *E.g.*, MedImmune, Inc. v. Genentech, Inc., 549 U.S. 118 (2007).

39. Leahy-Smith America Invents Act, Pub. L. No. 112-29, § 19(d), 125 Stat. 284, 332–33 (2011) (codified at 35 U.S.C. § 299).

40. *E.g.*, TC Heartland LLC v. Kraft Foods Grp. Brands LLC, 137 S. Ct. 1514 (2017) (overruling VE Holding Corp. v. Johnson Gas Appliance Co., 917 F.2d 1574 (Fed. Cir. 1990)).

41. Leahy-Smith America Invents Act, Pub. L. No. 112-29, § 6(a), 125 Stat. 284, 299–304 (2011) (codified at 35 U.S.C. §§ 311–319); Oil States Energy Servs., LLC v. Greene's Energy Grp., LLC, 138 S. Ct. 1365 (2018); SAS Inst. Inc. v. Iancu, 138 S. Ct. 1348 (2018).

42. Lemley, *Resilience*, *supra* note 1, at 1–6.

43. See column titled "Utility Patent Grants, All Origin Total" in *U.S. Patent Statistics Chart Calendar Years 1963–2020*, U.S. PAT. & TRADEMARK OFF., https://www.uspto.gov/web/offices/ac/ido/oeip/taf/us_stat.htm (last visited June 18, 2021).

44. *See* Gene Quinn, *The Rise of Patent Litigation in America: 1980–2012*, IP WATCHDOG (Apr. 9, 2013), https://www.ipwatchdog.com/2013/04/09/the-rise-of-patent-litigation-in-america-1980-2012/id=38910/.

45. *See* Lemley, *Resilience*, *supra* note 1, at 24 (summarizing results of three empirical studies indicating that, across several decades, patents litigated to a final decision in federal court on validity issues were upheld between 54% to 58% of the time).

46. *Id.* at 25 ("In 2006, Paul Janicke and LiLan Ren found that patentees won 25% of all cases decided between 2002 and 2004. A decade later, Allison, Lemley, and Schwartz found that patentees won 26% of cases filed in 2008 and 2009 and litigated to decision on validity between 2009 and 2013." (footnote omitted)).

47. *E.g.*, FED. TRADE COMM'N, PATENT ASSERTION ENTITY ACTIVITY: AN FTC STUDY (2016), https://www.ftc.gov/reports/patent-assertion-entity-activity-ftc-study; FED. TRADE COMM'N, TO PROMOTE INNOVATION: THE PROPER BALANCE OF COMPETITION AND PATENT LAW AND POLICY (2003), https://www.ftc.gov/reports/promote-innovation-proper-balance-competition-patent-law-policy.

48. *See supra* note 4 and accompanying text.

America Invents Act ("AIA").[49] Complaints about abusive assertions continue to drive ongoing attempts at patent reform, as demonstrated most recently in the June 2019 congressional hearings on proposals to overhaul the patentable subject matter requirement.[50] Finally, the original problems that led to the creation of the Federal Circuit in 1982 still have not fully subsided. "Uniformity" in patent law has been achieved in a superficial sense by virtue of having a single appellate court for patent appeals that issues binding precedent with nationwide effect. However, predictability in adjudication and the elimination of expensive and time-consuming forum shopping still remain elusive goals, as indicated by: complaints in recent decades about high reversal rates;[51] panel dependence in appellate outcomes;[52] and the concentration of patent suits in select jurisdictions that is symptomatic of active forum shopping[53] and forum selling[54] at the district-court level.

If, despite numerous changes to statutory and decisional law, the same complaints persist without material improvement, it may be an indication that we have difficulty either diagnosing the problems with patent litigation, or crafting a lasting solution, or both. Although it is estimated that, at most, only about 2% of patents are litigated,[55] much of the complaints, concerns, and reforms relating to the patent system have focused on patent litigation, for a couple of reasons.

First, patents are essentially a right to sue.[56] Although patents are obtained for a variety of reasons—such as signaling a firm's economic

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

50. *See, e.g.*, Jared B. Rifis, Courtenay C. Brinckerhoff, George C. Beck & Gilberto M. Villacorta, *The State of Patent Eligibility–Report on Senate Hearings*, NAT'L L. REV. (June 19, 2019), https://www.natlawreview.com/article/state-patent-eligibility-report-senate-hearings.

51. *See, e.g.*, Hon. Patti B. Saris, *The Indefinite Role of the Trial Judge in Patent Litigation*, 18 LEWIS & CLARK L. REV. 751, 754–55 (2014) ("In 2010, the Federal Circuit reversed in full or in part approximately 40% of patent infringement cases. In 2011, the Federal Circuit reversed at least one term in about 30% of claim construction cases. . . . [This] far exceeds the 6.9% average rate of reversal of the regional circuits." (footnotes omitted)).

52. *See, e.g.*, R. Polk Wagner & Lee Petherbridge, *Is the Federal Circuit Succeeding? An Empirical Assessment of Judicial Performance*, 152 U. PA. L. REV. 1105, 1112 (2004) (presenting data revealing that "the composition of the panel that hears and decides an appeal has a statistically significant effect on the claim construction analysis").

53. Kimberly A. Moore, *Forum Shopping in Patent Cases: Does Geographic Choice Affect Innovation?*, 79 N.C. L. REV. 889, 892 (2001).

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

55. Mark A. Lemley, *Rational Ignorance at the Patent Office*, 95 NW. U. L. REV. 1495, 1501 (2001).

56. *See* Carl Shapiro, *Antitrust Limits to Patent Settlements*, 34 RAND J. ECON. 391, 395 (2003) ("What the patent grant actually gives the patentholder is the right to sue to prevent others from infringing the patent. . . . [A] real patent does not give the patentee 'the right to exclude' but rather the more limited 'right to *try* to exclude' by asserting its patent in court."); *see also* Joseph Scott

attributes,[57] enhancing product marketing,[58] or indicating a firm's compliance with industry norms[59]—a major driver of patenting is related to its potential use in litigation for offensive and/or defensive purposes. Colleen Chien has chronicled the arms race that led to the growth of large patent portfolios, which were initially amassed for defensive purposes for use in counterclaims.[60] But those large portfolios, which are expensive to maintain, became subject to a monetization push by operating companies that has resulted in licensing campaigns (backed by the threat of litigation) and the sale of patents to PAEs.[61] *Second*, patent law is created and maintained largely by the Federal Circuit. The PTO does not have substantive rulemaking authority;[62] its interpretations of the Patent Act relating to substantive patent law are not accorded *Chevron*[63] deference.[64] Accordingly, much of substantive patent law is decisional law created by the Federal Circuit. Over 90% of patent cases settle at the trial level,[65] leaving patent law

Miller, *Building a Better Bounty: Litigation-Stage Rewards for Defeating Patents*, 19 BERKELEY TECH. L.J. 667, 680 n.46 (2004) ("It is thus, in a sense, more accurate to say that a patent confers a right to sue, rather than a right to exclude.").

57. *See* Clarisa Long, *Patent Signals*, 69 U. CHI. L. REV. 625, 651–52 (2002) ("Straight patent counts are used as a means of measuring otherwise unobservable or difficult-to-measure attributes, such as knowledge capital or the productivity of R&D spending. Analysts often treat patents as a benchmark of firm innovativeness." (footnote omitted)).

58. *See* Ann Bartow, *Separating Marketing Innovation from Actual Invention: A Proposal for A New, Improved, Lighter, and Better-Tasting Form of Patent Protection*, 4 J. SMALL & EMERGING BUS. L. 1, 3–5 (2000).

59. *See* Dan L. Burk, *On the Sociology of Patenting*, 101 MINN. L. REV. 421, 442 (2016) ("Patents serve as a token of . . . compliance [in the expected social order] because they are integral to the pervasive narrative of innovation . . . . The firm may or may not in fact be innovative . . . but that is largely beside the point: holding patents demonstrates its adoption of the proper role in the proper social script.").

60. Colleen V. Chien, *From Arms Race to Marketplace: The Complex Patent Ecosystem and Its Implications for the Patent System*, 62 HASTINGS L.J. 297, 300 (2010).

61. *Id.* at 304–07.

62. Merck & Co., Inc. v. Kessler, 80 F.3d 1543, 1549–50 (Fed. Cir. 1996) ("[T]he broadest of the PTO's rulemaking powers—35 U.S.C. § 6(a)—authorizes the Commissioner to promulgate regulations directed only to 'the conduct of proceedings in the [PTO]'; it does NOT grant the Commissioner the authority to issue substantive rules." (citing Animal Legal Def. Fund v. Quigg, 932 F.2d 920, 930 (Fed. Cir. 1991))).

63. Chevron U.S.A., Inc. v. Nat. Res. Def. Council, Inc., 467 U.S. 837, 842–44 (1984) (providing a framework for according deference to an agency's construction of a statute).

64. Brand v. Miller, 487 F.3d 862, 869 n.3 (Fed. Cir. 2007) ("[T]he [PTO's] Board does not earn *Chevron* deference on questions of substantive patent law.").

65. *See* John R. Allison, Mark A. Lemley & David L. Schwartz, *Understanding the Realities of Modern Patent Litigation*, 92 TEX. L. REV. 1769, 1780 (2014) ("[L]ess than 10% of the patent lawsuits filed in 2008 and 2009 (462 of 5,029) resulted in any merits decision. In other words, more than 90% of lawsuits settle before the court resolves summary judgment or tries the case." (footnote omitted)).

susceptible to being shaped by selection effects arising from those cases that eventually secure an appellate disposition.

Given the importance of litigation and decisional law in shaping the patent system, it should come as no surprise that they have been the focus of many proposals for reform. For example, scholars have suggested various procedural changes for patent suits to mitigate the problem of abusive litigation, such as: restricting venue to prevent forum shopping and forum selling;[66] expanding the customer suit exception;[67] requiring early-stage administrative review of patent suits;[68] and fee-shifting.[69] Other proposals have focused on improving the quality and predictability of adjudication at the trial level by increasing the patent law expertise of federal district court judges[70] or creating a specialized patent trial court.[71] With respect to fixing substantive patent law precedents, much commentary exists on the need to improve the doctrines governing claim construction,[72] remedies (especially reasonable royalties),[73] and more recently, patentable subject matter.[74] On a more macroscopic level, oft-repeated criticisms of the Federal Circuit's

66. *See, e.g.*, Jeanne C. Fromer, *Patentography*, 85 N.Y.U. L. REV. 1444, 1447 (2010) [hereinafter Fromer, *Patentography*]; Klerman & Reilly, *supra* note 54, at 304; Moore, *supra* note 53, at 931–37.

67. *See, e.g.*, Brian J. Love & James C. Yoon, *Expanding Patent Law's Customer Suit Exception*, 93 B.U. L. REV. 1605, 1635–41 (2013).

68. *See, e.g.*, Lauren Cohen, John M. Golden, Umit G. Gurun & Scott Duke Kominers, "*Troll" Check? A Proposal for Administrative Review of Patent Litigation*, 97 B.U. L. REV. 1775, 1808 (2017).

69. *See, e.g.*, Jay P. Kesan, *Carrots and Sticks to Create a Better Patent System*, 17 BERKELEY TECH. L.J. 763, 795 (2002); Megan M. La Belle, *Fee Shifting for PTAB Proceedings*, 24 TEX. INTELL. PROP. L.J. 367, 399 (2016).

70. *See infra* Part II.D.2.

71. *See, e.g.*, Jay P. Kesan & Gwendolyn G. Ball, *Judicial Experience and the Efficiency and Accuracy of Patent Adjudication: An Empirical Analysis of the Case for A Specialized Patent Trial Court*, 24 HARV. J.L. & TECH. 393, 443 (2011); Arti K. Rai, *Specialized Trial Courts: Concentrating Expertise on Fact*, 17 BERKELEY TECH. L.J. 877, 877–78 (2002) [hereinafter Rai, *Specialized Trial Courts*].

72. *See, e.g.*, J. Jonas Anderson & Peter S. Menell, *Informal Deference: A Historical, Empirical, and Normative Analysis of Patent Claim Construction*, 108 NW. U. L. REV. 1, 4–5 nn.6–11 (2013) (collecting sources).

73. *See, e.g.*, David O. Taylor, *Using Reasonable Royalties to Value Patented Technology*, 49 GA. L. REV. 79, 81–82, 82 n.6 (2014) (collecting sources).

74. *See, e.g.*, Jason D. Reinecke, *Is the Supreme Court's Patentable Subject Matter Test Overly Ambiguous? An Empirical Test*, 2019 UTAH L. REV. 581, 582 (2019) (compiling scholarly reactions).

jurisprudence include its penchant for rigid, formalistic rules,[75] and its unwillingness to tailor patent law to the needs of different industries.[76]

Given the patent system's historical resilience to changes in the law,[77] it may be unclear, at first blush, which, if any, of the existing proposals or areas highlighted for improvement mentioned above should be the focus of reform efforts. Because opportunities for change through congressional action, en banc review at the Federal Circuit, and Supreme Court review are relatively scarce,[78] it would be wasteful to focus on the symptoms of a problem or reform proposals that are unlikely to be effective. Unfortunately, the complex machinery of patent litigation can obscure the underlying causes of persistent problems, as well as limit the universe of feasible, lasting solutions. A major source of complexity in patent litigation lies in the fact that patent cases are currently adjudicated in federal district courts where there may be considerable case-to-case, district-to-district, and judge-to-judge variances in the adjudicatory environment. Further compounding the complexity is the fact that the universe of patent litigants hail from different industries that interact with the patent system in very different ways and have different priorities. For example, patents are critical to the product development plans of pharmaceutical companies,[79] while software and electronics companies are primarily concerned with fighting nuisance suits from "patent trolls."[80] As such, different industries may employ different litigation strategies, and may have different preferred venues.[81] Thus, when it becomes necessary to address a problem in patent litigation, it may be difficult to pinpoint or disentangle the root cause of the problem, which can lead to a misdiagnosis, which, in turn, may lead to an ineffective solution being adopted—sometimes at considerable cost in light of the rarity of congressional action, Federal Circuit en banc rulings, and Supreme Court review.

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75. *See* David O. Taylor, *Formalism and Antiformalism in Patent Law Adjudication: Rules and Standards*, 46 CONN. L. REV. 415, 420 n.16 (2013) (collecting sources criticizing Federal Circuit formalism).

76. Dan L. Burk & Mark A. Lemley, *Policy Levers in Patent Law*, 89 VA. L. REV. 1575, 1579 (2003) [hereinafter Burk & Lemley, *Policy Levers*]; *see also* Rochelle Cooper Dreyfuss, *In Search of Institutional Identity: The Federal Circuit Comes of Age*, 23 BERKELEY TECH. L.J. 787, 827 (2008) [hereinafter Dreyfuss, *Identity*].

77. Lemley, *Resilience*, *supra* note 1, at 2.

78. *See supra* notes 7–10 and accompanying text.

79. *See* Benjamin N. Roin, *Unpatentable Drugs and the Standards of Patentability*, 87 TEX. L. REV. 503, 547 (2009) ("[I]t is not unusual for a pharmaceutical company to sour on an otherwise promising drug candidate after their attorneys turn up a prior disclosure that threatens its patent protection.").

80. *See* Edgar Walters, *Tech Companies Fight Back Against Patent Lawsuits*, N.Y. TIMES (Jan. 23, 2014), https://www.nytimes.com/2014/01/24/us/tech-companies-fight-back-against-patent-lawsuits.html.

81. *See infra* notes 303–304 and accompanying text.

II. PROPOSAL: A CONTROLLED ENVIRONMENT

One possible solution for overcoming the patent system's resistance to change may be to create a controlled environment for patent suits to reduce the effect of possible diagnostic confounders and facilitate implementation of impactful changes. As proposed in this Article, a controlled environment can be implemented with a single, specialized patent trial court that has exclusive original jurisdiction over patent suits and is empowered to promulgate its own rules of practice. Concentrating all patent suits in a single trial court that has its own rules of practice—separate from the Federal Rules—may help mitigate confounders arising from variations in: (1) patent litigation procedure (whereby the FRCP and the current patchwork of patent local rules in multiple district courts would be replaced by a single set of procedural rules tailored to patent cases); (2) venue (whereby litigants will be unable to evade reforms by forum shopping, and, by removing the need for forum selling, judge-to-judge variance in case management practices may decrease); and (3) trial judge experience (whereby all the judges of the specialized trial court will be (or become) highly experienced in patent case adjudication).

To the extent that a specialized patent trial court has been previously proposed in the literature, its justifications typically focused on enhancing the quality of adjudication[82] in patent cases and eliminating forum shopping.[83] What has been overlooked in the literature is the potential utility of a specialized trial court to enhance diagnostic power by reducing the number and magnitude of possible confounders, thereby allowing the underlying cause of some intractable problem to be discerned more accurately by judges, policymakers, stakeholders, and other observers of the patent system. Indeed, the reduction of confounders will enhance empirical research relating to patent litigation, given that substantial disagreement exists over whether the current empirical literature supports the need for additional reforms, as shown by the dueling set of letters from the academy that was sent to Congress a couple of years after the enactment of the AIA.[84]

82. *See supra* note 71 and accompanying text. The term "quality of adjudication" as used in this Article refers to the "correctness" of decisions (often measured as a function of the reversal rate) from the standpoint of substantive patent law and the specific technology at issue. The uniform application of the law and the predictability of outcomes are also relevant considerations for the quality of adjudication.

83. *See, e.g.*, Moore, *supra* note 53, at 932–33.

84. The letters are reproduced on the Patently-O website operated by Dennis Crouch. *Compare* Dennis Crouch, *The Rewards From Effective Reform Could Be Great*, PATENTLY-O (Mar. 3, 2015), https://patentlyo.com/patent/2015/03/rewards-effective-reform.html (signed by fifty-one academics), *with* Dennis Crouch, *Professor-to-Professor: You Are Wrong about Patent Reform*,

Furthermore, the controlled environment provided by a specialized patent trial court may also help facilitate experimentation to test and fine-tune possible "treatments" in the form of changes to the law or reforms to resolve some underlying problem. Specifically, policymakers and judges may be able to introduce or try out new procedural rules without regard to trans-substantivity concerns in federal litigation procedure. That is, the specialized trial court may allow for "sandboxing,"[85] whereby the impact of any new procedural rules would be limited to patent cases without affecting other litigation in the federal court system. In addition, because the proposed patent trial court would be empowered to promulgate its own rules of practice and procedure, it can readily refine the rules governing patent litigation in an iterative manner to keep up with the litigants' evolving strategies—without going through the Judicial Conference or waiting for an act of Congress, which can take years and lead to changes being held up or watered down due to lobbying by stakeholders.[86]

This Part explains the diagnosis- and treatment-enhancing features of the specialized trial court proposal in greater detail.

A. Enhancing Diagnoses by Mitigating Confounders

As proposed, a specialized patent trial court could mitigate diagnostic confounders along at least three dimensions: (1) patent litigation procedure; (2) venue; and (3) trial judge experience.

1. Patent Litigation Procedure

Presently, there are multiple sets of procedural rules that govern how a patent case is litigated in any one of the ninety-four federal district courts:[87] the FRCP; certain sections of Title 28 (e.g., the venue rule for patent cases[88]); local rules governing civil cases;[89] patent local rules (in several dozen district

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PATENTLY-O (Mar. 10, 2015), https://patentlyo.com/patent/2015/03/professor-patent-reform.html (signed by forty academics).

85. A definition of "sandboxing," which has its origins in computer security, is as follows:

> Sandboxing is a computer security term referring to when a program is set aside from other programs in a separate environment so that if errors or security issues occur, those issues will not spread to other areas on the computer. Programs are enabled in their own sequestered area, where they can be worked on without posing any threat to other programs.

Sandboxing, TECHOPEDIA, https://www.techopedia.com/definition/25266/sandboxing (last visited June 19, 2021).

86. *See infra* Part II.B.

87. *Court Role and Structure*, U.S. CTS., https://www.uscourts.gov/about-federal-courts/court-role-and-structure (last visited June 19, 2021) (noting that there are ninety-four district courts).

88. 28 U.S.C. § 1400(b).

89. Fed. R. Civ. P. 83.

courts);[90] precedents from the regional circuits on procedural issues that do not implicate substantive patent law;[91] and Federal Circuit precedents on procedural issues that are "intimately involved in the substance of enforcement of the patent right."[92] On top of the district-to-district variance in the set of rules (of which there will be ninety-four varieties), there will also be judge-to-judge variance in how the rules are applied within a district because some rules may be open to varying interpretations or require the exercise of discretion.[93]

To reduce diagnostic confounders, the current amalgam of multiple sets of procedural rules would be replaced with a single set of procedural rules tailored to patent litigation for use by the proposed specialized patent trial court. Other than high-level housekeeping issues related to the establishment of the specialized patent trial court—such as the grant of powers, jurisdiction, etc., which would be established by an act of Congress—this single set of procedural rules governing practice and procedure in patent cases would be promulgated by the specialized patent trial court itself.[94] This arrangement is by no means unprecedented in the federal court system: examples of specialized courts that craft their own procedural rules include the United States Court of International Trade[95] and the United States Tax Court.[96] Given the complexity of patent litigation, the specialized patent trial court's ability to promulgate its own rules of practice and procedure is a critical feature that allows for iterative diagnosis-treatment cycles. In promulgating a single set of procedural rules, the proposed court will not eliminate all potential confounders arising from procedural variations. Rather, it can remove some (e.g., district-to-district variance in the procedural rules) while decreasing the magnitude of others (e.g., judge-to-judge variance in the exercise of discretion). Depending on the problem, it may not be necessary (or feasible) to eliminate all confounders; simply mitigating one or more confounders may be sufficient to enhance diagnostic accuracy.

Having only one set of procedural rules apply in an area of law as complex as patent litigation is desirable because the interaction of multiple sets of procedural rules can increase the probability of misdiagnosis in at least two ways.

90. *See supra* note 18 and accompanying text.
91. *See* Int'l Nutrition Co. v. Horphag Rsch. Ltd., 257 F.3d 1324, 1328 (Fed. Cir. 2001).
92. Viam Corp. v. Iowa Exp.-Imp. Trading Co., 84 F.3d 424, 428 (Fed. Cir. 1996).
93. *See infra* note 307 and accompanying text.
94. *See infra* Part II.C.
95. 28 U.S.C. § 2633(b).
96. 26 U.S.C. § 7453.

First, having many sets of rules covering similar or related areas may increase the likelihood of obscuring the source of the problem: Does the problem lie with the FRCP? Or some patent local rule? Or with substantive patent law? Or a combination? In addition, depending on who (e.g., trial judges, appellate judges, Congress, academics, stakeholders, etc.) is performing the diagnosis and their priors, there may be a tendency to focus on one rule over another in an ambiguous situation. For example, a problem that may appear on the surface to be attributable to some provision in the FRCP might actually be rooted in one of the Federal Circuit's precedents on an issue of substantive patent law that is closely tied to procedural issues, for which there may also be associated patent local rules.

By way of illustration, a misdiagnosis along these lines likely occurred with the special joinder rule for patent cases enacted through the AIA, 35 U.S.C. § 299, which prohibits the mass joinder of unrelated defendants in a single suit solely on the basis that they allegedly infringed the same patent.[97] Section 299 can be readily circumvented when plaintiffs file multiple cases and move to consolidate them. Because the statute, as drafted, limits consolidations "for trial"[98] and is silent on pretrial matters, some courts have interpreted Section 299 as being inapplicable to *pretrial* consolidation and have granted plaintiffs' motions to consolidate,[99] citing the need to avoid construing the same patent more than once.[100] The significance of trial vs. pretrial consolidation appears to have eluded Congress, which seemingly viewed the mass joinder problem as simply a "joinder" issue under FRCP 20,[101] without appreciating its implications for claim construction, which is usually a pretrial event[102] that is often scheduled according to the patent local

97. Leahy-Smith America Invents Act, Pub. L. No. 112-29, § 19(d)(1), 125 Stat. 332 (2011) (codified as amended at 35 U.S.C. § 299).

98. 35 U.S.C. § 299(b).

99. *See, e.g.*, Affinity Lab'ys of Tex., LLC v. Blackberry Ltd., No. WA:13-CV-362, 2014 WL 12551206, at *4 (W.D. Tex. Apr. 4, 2014) ("While it is clear that the limitations set out in the AIA extends [sic] to consolidation of actions for trial, consolidation for pretrial proceedings is not addressed in § 299."); In re: Bear Creek Techs., Inc., ('722) Pat. Litig., 858 F. Supp. 2d 1375, 1378 (J.P.M.L. 2012) ("Section 299 . . . is silent as to the conduct of pretrial proceedings . . . .").

100. *See, e.g.*, Auto-Dril, Inc. v. Canrig Drilling Tech., Ltd., No. 6:15-CV-00096, 2015 WL 12780793, at *5 (W.D. Tex. June 29, 2015) ("Allowing the parties to present their evidence and arguments concerning claims construction in a single hearing will help conserve judicial resources by limiting the claim construction to a single hearing at which all parties are present, rather than three separate hearings.").

101. *See* Joe Matal, *A Guide to the Legislative History of the America Invents Act: Part II of II*, 21 FED. CIR. BAR J. 539, 590–93 (2012) (summarizing legislative history of Section 299).

102. *See* Edward Tulin, *Practical Strategies For Markman Hearings Amid COVID-19*, LAW360 (May 15, 2020, 5:16 PM EDT), https://www.law360.com/articles/1272814/practical-strategies-for-markman-hearings-amid-covid-19.

rules,[103] and which is considered one of the most significant events in a patent case by virtue of its centrality to the merits[104] and the de novo standard of review on appeal.[105]

Such misdiagnoses should not be surprising in complex litigation. Could the proposed specialized patent trial court have promulgated a joinder rule with a similar flaw? It is possible, but the likelihood of a misdiagnosis would decrease because the court would be operating under a single set of procedural rules, which would be amended by its own judges who would be highly experienced with, and thus attuned to, the interactions between the procedural rules and substantive patent law. Compared to Congress, if the proposed specialized patent trial court needed to amend a rule in response to circumvention attempts, it can more readily do so on its own as it may be more resistant to lobbying.

Second, diagnostic confounders may also be introduced by the availability of different interpretations or versions of the same (or similar) rule in different districts. For example, the interpretation of some federal procedural statute or FRCP provision that is applied during a patent case may differ from circuit to circuit because the Federal Circuit allows the law of the regional circuit to be applied to procedural issues that do not implicate substantive patent law.[106] Relatedly, the patent local rules adopted by several dozen district courts are not uniform, with some districts not having any patent local rules.[107] Such district-to-district variance in the procedural rules can drive forum shopping and forum selling.[108] The resulting nonrandom distribution of patent cases among districts may limit the statistical power of empirical studies that courts and policymakers rely on to diagnose problems with patent litigation and devise solutions. This is discussed in greater detail in Parts II.A.2 and II.D.2, which explore how procedural variations and the resulting nonrandom distribution of cases have made it difficult to ascertain the effectiveness of reforms (e.g., AIA), changes in the law (e.g., the Supreme Court's patentable subject matter case law), and experiments (e.g., the Patent Pilot Program).

103. *See, e.g.*, *N.D. Cal. Patent Rules*, *supra* note 18, at § 4.

104. *See infra* note 171 and accompanying text.

105. *See infra* note 174 and accompanying text.

106. *See, e.g.*, In re Barnes & Noble, Inc., 743 F.3d 1381, 1383 (Fed. Cir. 2014) ("In reviewing a district court's ruling on a motion to transfer pursuant to § 1404(a), we apply the law of the regional circuit . . . ."); Exergen Corp. v. Wal-Mart Stores, Inc., 575 F.3d 1312, 1318 (Fed. Cir. 2009) ("The denial of a motion to amend a pleading under Rule 15(a) is a procedural matter governed by the law of the regional circuit.").

107. *See* La Belle, *Local Rules*, *supra* note 18, at 96–97.

108. *See* Klerman & Reilly, *supra* note 54, at 250–70 (explaining how the Eastern District of Texas's procedural rules and case management practices attract patentees).

Given the problems arising from procedural variance, those wary of setting up a specialized patent trial court might wonder if a less "drastic" alternative would suffice: conducting patent litigation in the district courts with a uniform set of procedural rules specifically for patent cases. Notably, Megan La Belle has argued for the adoption of a "Federal Rules of Patent Procedure" that is a patent litigation version of the FRCP.[109] Drawing on the procedure for rulemaking in bankruptcy cases,[110] La Belle proposes that Congress should provide the Supreme Court with rulemaking authority over patent cases to create the "Federal Rules of Patent Procedure."[111] These rules would be drafted through a process similar to that of the FRCP, whereby a "Patent Rules Advisory Committee" would draft the rules with public input, which would then be transmitted to the Supreme Court for approval, followed by congressional review.[112]

A significant limitation of adopting specialized patent procedural rules for use in the district courts is that, once adopted, it may be difficult to update those rules as circumstances change. This is because the procedural rules governing district court litigation may need to be amended through the cumbersome Federal Rules revision process, which can take several years.[113] An even more cumbersome option would be the statutory route: If, like the Private Securities Litigation Reform Act ("PSLRA"),[114] the specialized rules for patent cases were instead specified by statute, then any amendment would require an act of Congress, which tends to be rare and sporadic on patent issues because of industry stalemates.[115] The ease with which a set of procedural rules can be amended is important because it will facilitate

109. *Id.* at 68.

110. *See* 28 U.S.C. § 2075 ("The Supreme Court shall have the power to prescribe by general rules, the forms of process, writs, pleadings, and motions, and the practice and procedure in cases under title 11 [bankruptcy].").

111. La Belle, *Local Rules*, *supra* note 18, at 120.

112. *Id.* at 120–23.

113. *Overview for the Bench, Bar, and Public*, U.S. CTS., https://www.uscourts.gov/rules-policies/about-rulemaking-process/how-rulemaking-process-works/overview-bench-bar-and-public (last visited June 19, 2021) ("The rulemaking process is time consuming and involves a minimum of seven stages of formal comment and review. From beginning to end, it usually takes two to three years for a suggestion to be enacted as a rule.").

114. Private Securities Litigation Reform Act of 1995, Pub. L. 104-67, 109 Stat. 737 (codified as amended in scattered sections of 15 U.S.C.). The PSLRA provisions include heightened pleading requirements, 15 U.S.C. § 78u-4(b)(1) to (2), and a stay of "all discovery and other proceedings . . . during the pendency of any motion to dismiss." 15 U.S.C. § 78u-4(b)(3)(B).

115. *See* Timothy B. Lee, *How Democrats and Trial Lawyers Killed Patent Reform*, VOX (May 23, 2014, 1:10 PM EDT), https://www.vox.com/2014/5/23/5742620/patent-reform-is-dead-heres-who-killed-it (last visited June 19, 2021) ("For years, the patent reform debate has been a stalemate between pro-reform technology companies and pharmaceutical companies that favored the status quo.").

iteration. As mentioned previously, iteration is important because it is difficult to craft a rule that will work correctly the first time. This is because, as the experience with the Section 299 joinder rule illustrates, the ways to circumvent a new rule may not be apparent until it is tested in litigation.[116] Accordingly, we need a way to easily update the rules in an iterative fashion. A specialized patent trial court that is empowered to promulgate its own rules of practice is one configuration where this may be possible.

In addition, a single trial court makes it easier to coordinate among judges to ensure that a common set of rules is consistently applied. For this reason, even if a "Federal Rules of Patent Procedure" were created for the district courts, coordination problems among the hundreds of judges in ninety-four districts may undermine its consistent application, thereby providing limited protection against forum shopping, which can be a diagnostic confounder. By way of example, the PSLRA was enacted in the context of securities litigation for reasons that are similar to the perennial calls for patent reform: to combat abusive litigation and nuisance suits.[117] But the inconsistent application of the PSLRA among the district courts likely undermined its effectiveness.[118] According to Sean Griffith, "[c]onsistent application of the PSLRA . . . requires judicial coordination which has so far been lacking among federal district courts,"[119] in that the "judges have been unable (or unwilling) to coalesce around a single interpretation of the PSLRA."[120] To emphasize the importance of coordination, Griffith notes that the Delaware Chancery Court has managed to solve the problem of merger-related nuisance litigation by issuing an influential decision,[121] unlike the federal courts where it continues "largely unabated."[122] Specifically, Griffith credits the fact that "in Delaware[,] a single court, the Court of Chancery, hears all corporate law cases,"[123] which facilitates coordination amongst its judges: "[B]ecause the members of the Court of Chancery hear so many related cases and regularly meet to discuss them, it is relatively easy for the court to design a coherent and consistent approach to recurring issues."[124] By

116. *See supra* text accompanying notes 97–105.

117. H.R. Rep. No. 104-369, at 31–32 (1995) (Conf. Rep.).

118. *See* Sean J. Griffith, *Class Action Nuisance Suits: Evidence from Frequent Filer Shareholder Plaintiffs* 4, 19 (Eur. Corp. Governance Inst., L. Working Paper No. 502, 2020), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3470330.

119. *Id.* at 4.

120. *Id.* at 19.

121. Griffith credits *In re Trulia, Inc. Stockholder Litig.*, 129 A.3d 884 (Del. Ch. 2016) for this result. *Id.* at 5, 23.

122. *Id.* at 23.

123. *Id.*

124. *Id.*

contrast, the federal judiciary, with over 600 judges, is largely uncoordinated.[125]

The lack of coordination among a group judges who apply the same set of rules may not always reflect a difference of opinion or a lack of communication. In some cases, it may be driven by forum selling. A prime example of this is the forum selling that occurs in the bankruptcy courts, which operate under a common set of specialized procedural rules: the Federal Rules of Bankruptcy Procedure. Lynn LoPucki has chronicled this phenomenon,[126] in which some bankruptcy courts engage in behavior that resembles the practices of the plaintiff-friendly Eastern District of Texas in patent cases,[127] whereby those courts, in order to attract more cases, adopt case management practices that tend to favor the party that selects the venue.[128] While having a uniform set of rules is a critical ingredient for mitigating diagnostic confounders, it is insufficient by itself when there are multiple venues, as discussed in greater detail in Part II.A.2.

2. Venue

An oft-cited justification in the literature for a specialized patent trial court is the elimination of forum (or judge) shopping in the district courts.[129] However, there is an additional benefit of concentrating patent cases in a single court: the elimination of venue as a confounder in diagnosing problems in patent litigation and assessing whether a reform is working as intended. If there are multiple venues when a change in the law occurs, new case filings may shift to those venues where the judges' manner of interpretation or application of the new law will have a greater or lesser impact, depending on the objectives of the litigants. Having multiple district courts available for patent cases creates a "shifting sands" environment that can make it difficult to ascertain why some change in the law failed to have its intended impact: Was the change in the law ineffective because it was defective to begin with? Or, was it ineffective because it was somehow being circumvented or sidestepped through forum shopping? Or something else?

As chronicled by Brian Love and James Yoon with statistics comparing rulings among popular patent venues, there have been several major reforms

125. *Id.*

126. LYNN M. LOPUCKI, COURTING FAILURE: HOW COMPETITION FOR BIG CASES IS CORRUPTING THE BANKRUPTCY COURTS (2005).

127. *See* Klerman & Reilly, *supra* note 54, at 245 (noting "the Eastern District of Texas's pro-patentee bias and particular attractiveness to patent assertion entities").

128. *See id.* at 292–94 (comparing forum selling in patent cases with LoPucki's observations in bankruptcy cases).

129. *See supra* note 83 and accompanying text.

within the past decade whose effects might have been blunted as a result of forum shopping.[130] For example, the AIA established three new proceedings that allowed the public to challenge the validity of issued patents at the PTO's internal tribunal, the Patent Trial and Appeal Board ("PTAB"): Inter Partes Review,[131] Post-Grant Review,[132] and Covered Business Method Review.[133] These post-issuance proceedings are intended to serve as faster, lower-cost alternatives to district court litigation.[134] However, patentees who file suit in districts that have low rates of granting stays during the pendency of a PTAB post-issuance proceeding[135] could still force accused infringers to incur the high cost of district court litigation throughout the case.[136] The refusal to grant a stay has become even more advantageous for patentees in light of recent changes to PTAB practice: the PTAB now takes into account whether any related district court case is stayed in deciding whether to discretionarily dismiss a petition for a post-issuance challenge.[137] Another AIA reform that has been prone to circumvention is the Section 299 joinder restriction.[138] As discussed in Part II.A.1, patentees have circumvented the spirit of this law by filing multiple single-defendant suits in districts where judges are inclined to grant pretrial consolidation of cases involving the same patent, so as to effectively recreate the single-suit, multi-defendant dynamic that existed before the enactment of Section 299.[139]

130. Brian J. Love & James Yoon, *Predictably Expensive: A Critical Look at Patent Litigation in the Eastern District of Texas*, 20 STAN. TECH. L. REV. 1, 25–26 (2017) [hereinafter Love & Yoon, *Predictably Expensive*].

131. 35 U.S.C. §§ 311–319.

132. *Id.* §§ 321–329.

133. Transitional Program for Covered Business Method Patents, 37 C.F.R. §§ 42.300–.304 (2020).

134. In 2017, the median cost of a patent infringement suit in federal court (inclusive of pre- and post-trial and appeal) ranged between $500,000 to $3 million, depending on the amount at risk. AM. INTELL. PROP. L. ASS'N, 2017 REPORT OF THE ECONOMIC SURVEY 41 (2017). For a PTAB post-grant proceeding, the median cost though appeal was $350,000. *Id.* at 43.

135. *See* Love & Yoon, *Predictably Expensive*, *supra* note 130, at 26–27 ("Judges in the District of Delaware and Northern District of California grant motions to stay, at least in part, over 70% of the time. By contrast, the grant rate in the Eastern District of Texas is less than 58%.").

136. *Id*.

137. *See infra* notes 271–277 and accompanying text.

138. 35 U.S.C. § 299.

139. *See* Love & Yoon, *Predictably Expensive*, *supra* note 130, at 27–29; *see also* Charles R. Macedo, Michael J. Kasdan & David A. Boag, *AIA's Impact On Multidefendant Patent Litigation: Part 2*, LAW360, (Oct. 26, 2012, 12:34 PM EDT), https://www.law360.com/articles/387458/aia-s-impact-on-multidefendant-patent-litigation-part-2 ("Immediately after the AIA was enacted, many NPEs began to conform their practices: Instead of instituting one massive multidefendant infringement action, they would institute a multitude of separate but nearly identical patent infringement complaints against unrelated entities in the same court."). This tactic can be seen in the dramatic difference in the average number of patent cases filed in U.S. district courts before (under 3,000) and after (over 5,000) the AIA was enacted in 2011. *See* Dennis Crouch, *US Patent*

Changes introduced through case law have also been the subject of circumvention attempts through forum shopping. In *Alice Corp. v. CLS Bank Int'l*,[140] the Supreme Court effectively excluded from the scope of patentable subject matter large swaths of computerized business method patents, which are often favored by PAEs.[141] Accused infringers have since used *Alice* to obtain early dismissals of nuisance cases through motions to dismiss and summary judgment.[142] However, in some districts that are popular with patentees, such as the Eastern District of Texas, early dismissals are rarely granted on patentable subject matter grounds.[143] Similarly, after the Supreme Court, in *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*,[144] made it easier to award attorney fees, substantial disparities emerged among the districts in the grant rate for fee motions and the amounts awarded.[145]

Such variation among the districts (and also among individual judges) in applying the reforms can make it difficult to ascertain whether (and what kind of) additional reforms might be necessary. Much like the problems with the PSLRA discussed earlier in Part II.A.1, coordination problems among district judges can undermine the effectiveness of a reform or a change in the law.[146]

Although the Supreme Court's decision in *TC Heartland LLC v. Kraft Foods Group Brands LLC*[147] narrowed the universe of patent case venues, it is unlikely that it has improved the situation enough to obviate the need to further restrict forum choice. *TC Heartland* held that the patent venue statute, 28 U.S.C. § 1400(b), limits venue to either the defendant's state of incorporation or where it has committed infringement and has "a regular and established place of business."[148] In the aftermath of *TC Heartland*, the most salient changes occurred in the District of Delaware (72% increase in filings after one year) and the Eastern District of Texas (68% decrease in filings after one year).[149] Although the Eastern District of Texas has seen a drop in new

Litigation New Filings By Year, PATENTLY-O (Dec. 19, 2016), https://patentlyo.com/patent/2016/12/patent-litigation-filings.html.

140. 573 U.S. 208 (2014).

141. *See* Ryan Davis, *High Court's* Alice *Ruling Brings Software Patent Clarity*, LAW360 (June 19, 2014, 8:43 PM EDT), https://www.law360.com/articles/549793/high-court-s-alice-ruling-brings-software-patent-clarity.

142. *See infra* note 199 and accompanying text.

143. *See* Love & Yoon, *Predictably Expensive*, *supra* note 130, at 30–32.

144. 572 U.S. 545 (2014).

145. *See* Love & Yoon, *Predictably Expensive*, *supra* note 130, at 32–33.

146. *See supra* notes 117–125 and accompanying text.

147. 137 S. Ct. 1514 (2017).

148. 28 U.S.C. § 1400(b); *TC Heartland*, 137 S. Ct. at 1516–17.

149. Shawn P. Miller, *Venue One Year After* TC Heartland*: An Early Empirical Assessment of the Major Changes in Patent Filing*, 52 AKRON L. REV. 763, 781 (2018).

cases after *TC Heartland*, the phrase "regular and established place of business" in the patent venue statute is a flexible, highly fact-dependent inquiry that still keeps many venue options open for plaintiffs because "the 'place' need not be a 'fixed physical presence in the sense of a formal office or store' . . . ."[150] Notably, even after *TC Heartland*, a recently appointed district judge, Alan Albright, managed to attract, through forum selling, a high volume of patent cases in the Western District of Texas, much like the Eastern District of Texas.[151] In 2018, Judge Albright had just twenty-eight new patent cases; in 2020, he had 793 new filings.[152]

To eliminate forum shopping/selling, the most direct solution, as recognized in the literature,[153] would be to have a single, specialized patent trial court, which is the option proposed in this Article. Some commentators, however, have proposed limiting venue to the defendant's principal place of business[154] or the largest market for the accused product.[155] With respect to relying on the principal place of business, companies can still manipulate venue by moving their headquarters, which, according to Lynn LoPucki, has occurred in bankruptcy cases.[156] More generally, companies move their operations across state lines for a variety of reasons, such as to avoid unfavorable laws[157] and to take advantage of economic incentives (e.g., lower taxes) offered by other states.[158] In addition, a court that is engaged in forum

150. In re Cray Inc., 871 F.3d 1355, 1362 (Fed. Cir. 2017) (quoting In re Cordis Corp., 796 F.2d 733, 737 (Fed. Cir. 1985)).

151. *See* Paul R. Gugliuzza & J. Jonas Anderson, *Guest Post: How the West Became the East: The Patent Litigation Explosion in the Western District of Texas*, PATENTLY-O (Sept. 15, 2020), https://patentlyo.com/patent/2020/09/litigation-explosion-district.html.

152. Dani Kass, *Judge Albright Now Oversees 20% of New US Patent Cases*, LAW360 (Mar. 10, 2021, 11:05 PM EST), https://www.law360.com/articles/1361071/judge-albright-now-oversees-20-of-new-us-patent-cases [hereinafter Kass, *Albright*].

153. *See* Moore, *supra* note 53, at 932 (noting that a specialized trial court "would eliminate forum shopping entirely, as there would be no possible alternative forum").

154. Fromer, *Patentography*, *supra* note 66, at 1447.

155. Klerman & Reilly, *supra* note 54, at 304.

156. *See* LOPUCKI, *supra* note 126, at 32 ("Some of the firms we studied did move their headquarters to manipulate venue.").

157. For example, Elon Musk, CEO of Tesla Motors, threatened to move Tesla out of California in response to the pandemic-related reopening policies of Alameda County, California, that affected his manufacturing plant. *See* Tim Mullaney, *Elon Musk's Threat to Leave California Could Cost Tesla $1 billion—and Be Worth It*, CNBC (May 20, 2020, 3:30 PM EDT), https://www.cnbc.com/2020/05/20/elon-musks-threat-to-leave-california-could-cost-tesla-1-billion.html.

158. *See, e.g.*, Shayndi Rice, *Tired of Fighting for Business, Missouri and Kansas Near Cease-Fire Over Incentives*, WALL ST. J. (June 25, 2019, 8:34 AM ET), https://www.wsj.com/articles/tired-of-fighting-for-business-missouri-and-kansas-near-cease-fire-deal-over-incentives-11561455003 ("According to the Hall Family Foundation, 116 companies moved their operations across Kansas City into the neighboring state between 2011 and 2019. The states paid $335 million in economic incentives due to the moves.").

selling might endeavor to determine the defendant's "principal place of business" in a manner that supports the plaintiff's forum choice.[159] As for tying venue to the largest market for the accused product, this, too, might be susceptible to manipulation, depending on how the "largest market" is defined and how sales are geographically allocated. Such manipulations are within the realm of possibility, especially for sophisticated companies like Apple Inc., which has moved retail locations to avoid being haled into the Eastern District of Texas,[160] and has managed to keep its profits offshore to avoid paying U.S. taxes.[161]

Another issue with venue proposals that do not require a single, exclusive venue is that patent cases may become clustered or concentrated in certain districts. As mentioned throughout this Part, the nonrandom distribution of patent cases among the districts can be difficult to control for in empirical studies of patent litigation and could lead to inconclusive results.[162] And, depending on how a particular district assigns cases, a single judge may preside over a disproportionate number of patent cases, further distorting the results. For example, the case allocation policies for the Eastern and Western Districts of Texas give plaintiffs a high probability of being assigned to their preferred judge upon filing in a particular division within the district, especially if that division has only a single district judge.[163] This has allowed Judge Alan Albright of the Western District of Texas and Judge Rodney Gilstrap of the Eastern District of Texas to rank first and second, respectively, among district judges in the number of new patent cases added to their dockets in 2020, with Judge Albright presiding over almost a

159. *Cf.* LOPUCKI, *supra* note 126, at 31–33.

160. *See, e.g.*, Sarah Perez, *Apple confirms its plans to close retail stores in the patent troll-favored Eastern District of Texas*, TECHCRUNCH (Feb. 22, 2019, 2:47 PM CST), https://techcrunch.com/2019/02/22/apple-confirms-its-plans-to-close-retail-stores-in-the-patent-troll-favored-eastern-district-of-texas/ ("Apple has confirmed its plans to close retail stores in the Eastern District of Texas—a move that will allow the company to better protect itself from patent infringement lawsuits . . . .").

161. *How Apple Managed to Pay Almost No Tax on Billions in Profits*, CBC RADIO (Nov. 10, 2017 5:58 PM ET), https://www.cbc.ca/radio/day6/how-apple-managed-to-pay-almost-no-tax-on-billions-in-profits-1.4391505.

162. An illustrative case is the Patent Pilot Program discussed in Part II.D.2, *infra*.

163. *See* General Order Assigning Civil and Criminal Actions, General Order No. 21-08, at 1 (E.D. Tex. Apr. 30, 2021), https://www.txed.uscourts.gov/sites/default/files/goFiles/GO%2021-08%20Assigning%20Civil%20and%20Criminal%20Actions.pdf (indicating that Chief Judge Rodney Gilstrap is assigned 100% of the patent cases filed in the Marshall division); Amended Order Assigning the Business of the Court (W.D. Tex. May 10, 2021), https://www.txwd.uscourts.gov/wp-content/uploads/Standing%20Orders/District/Amended%20Order%20Assigning%20Business%20of%20the%20Court%20051021.pdf (indicating that Judge Alan Albright is assigned "[a]ll cases and proceedings in the Waco Division.").

fifth of all new patent cases filed that year.[164] Allowing patent cases to cluster in nonrandom ways can amplify the idiosyncrasies of certain districts or individual judges in patent case adjudication data, which can make it difficult to accurately discern the nature of a problem or to reliably evaluate the impact of a change in the law. By contrast, a single patent trial court where all the cases are assigned randomly to the judges, such that all judges will preside over a mix of patent case types, may yield results that are more meaningful.

To be clear, having a single patent trial court will not eliminate all potential confounders. Rather, the single venue would eliminate some sources of variance (e.g., multiple venues, different procedural rules), while dampening other types of variance (e.g., the trial judges' patent case experience, the mix of cases each judge handles). Although this arrangement would not eliminate judge-to-judge variance in matters that involve the exercise of discretion, such as case management, it would substantially mitigate such variance by removing the need for forum selling.

3. Trial Judge Experience

Because the proposed specialized patent trial court would hear only patent cases, all of its trial judges would eventually become patent litigation specialists, even if they were generalists with no patent experience prior to their appointment.[165] The use of specialist trial judges may contribute to diagnostic efficiency by mitigating possible confounders related to adjudicator experience. Currently, it can be difficult to figure out whether a problematic litigation outcome in a patent case is attributable to the adjudicator's lack of fluency in patent law, suboptimalities in substantive patent doctrine, locality-based differences in procedure and case management practices, some other reason, or some combination of the foregoing.

An illustration of how differences in adjudicator experience could have a material impact on case outcomes is provided by a study conducted by Mark Lemley, Su Li, and Jennifer Urban.[166] Their data suggest that district judges with considerable patent case experience tend to rule against the patentee on infringement issues by a statistically significant margin when compared to judges who are inexperienced with patent cases.[167] In calling for additional

164. Kass, *Albright*, *supra* note 152.

165. *See* Judge James F. Holderman, *Judicial Patent Specialization: A View from the Trial Bench*, U. ILL. J.L. TECH. & POL'Y 425, 429 (2002) ("Typically, U.S. District Judges have little or no background experience in patent litigation . . . .").

166. Mark A. Lemley, Su Li & Jennifer Urban, *Does Familiarity Breed Contempt Among Judges Deciding Patent Cases?*, 66 STAN. L. REV. 1121 (2014).

167. *Id.* at 1121, 1140–44.

empirical research that "could indicate further paths for reform,"[168] Lemley, Li, and Urban acknowledge that "isolating the effects of specialist experience or expertise is an exceedingly complex task."[169] They note that their "results are necessarily limited in that they do not take into account differences in local rules and other specifics local to trial courts,"[170] which are potential diagnostic confounders, as discussed earlier.

Indeed, gauging the effects of adjudicator experience has been particularly difficult for what is perhaps the most important issue in a patent case: claim construction.[171] Claim construction is the process of construing the language of a patent claim to ascertain "the scope of the patentee's rights under the patent."[172] The difficulty of construing claims "correctly" (however defined) is illustrated by the frequent reversals of district court judgments based on claim construction errors, which have yielded a substantial body of literature on the unpredictability of claim construction.[173] Part of the uncertainty may be attributable to the de novo standard of review[174] and the phenomenon of panel dependence at the Federal Circuit.[175] Another contributor to the uncertainty may lie with the trial judge's characteristics: there may be instances when a district judge applied the law incorrectly because of their lack of familiarity with patent law. In other instances, however, the applicable claim construction canon might have been difficult to apply consistently, even by patent-savvy trial judges. As a result, it may not always be clear whether a claim construction ruling was "wrong" because of a trial judge's lack of patent law experience or a flaw in the Federal Circuit's precedents and practices, or a combination.

Isolating the effect of experience can be challenging in light of the variations in local procedures and the nonrandom distribution of patent cases among the district courts—and studies have yielded mixed results. For

168. *Id.* at 1154.

169. *Id.* at 1155.

170. *Id*.

171. Retractable Techs., Inc. v. Becton, Dickinson & Co., 659 F.3d 1369, 1370 (Fed. Cir. 2011) (Moore, J., dissenting) ("Claim construction is the single most important event in the course of a patent litigation. It defines the scope of the property right being enforced, and is often the difference between infringement and non-infringement, or validity and invalidity."); *see also* Arti K. Rai, *Engaging Facts and Policy: A Multi-Institutional Approach to Patent System Reform*, 103 COLUM. L. REV. 1035, 1059 (2003) [hereinafter Rai, *Engaging Facts*] ("Claim construction is often determinative of all other questions in the case . . . .").

172. Markman v. Westview Instruments, Inc., 52 F.3d 967, 970 (Fed. Cir. 1995), *aff'd*, 517 U.S. 370 (1996).

173. *See* Anderson & Menell, *supra* note 72, at 4–5 nn.6–11 (collecting sources).

174. Claim construction, as a question of law, is reviewed de novo, while any subsidiary factfinding by the trial court is reviewed for clear error. Teva Pharms. USA, Inc. v. Sandoz, Inc., 574 U.S. 318, 324–29 (2015).

175. *See supra* note 52 and accompanying text.

example, a study by David Schwartz suggests that reversal rates on claim construction issues may not necessarily improve with a trial judge's level of patent law experience.[176] However, Schwartz noted several limitations of his study, which include: a nonrandom distribution of cases among the districts, which "may be particularly profound if the types of parties to the lawsuits have some relationship to the difficulty or closeness of the claim construction issues";[177] the possibility that a "higher appeal rate of certain types of parties would magnify the effect of any selection bias";[178] and variations in settlement practices among judges.[179] In a further attempt to isolate the effect of expertise, Schwartz looked at the claim construction reversal rate of the administrative law judges ("ALJs") of the United States International Trade Commission ("ITC"),[180] an agency tribunal that investigates the importation of products that allegedly infringe U.S. patents.[181] The ALJs are considered highly experienced in patent law adjudication,[182] but Schwartz did not find that the ALJs fared better on appeal than the district judges.[183] Schwartz acknowledges that these results, while informative, should be viewed with caution, given the small population of ITC cases, procedural differences between the ITC and the district courts, and any "case-selection effects [that] may differ for the two fora."[184] By contrast, Jay Kesan and Gwendolyn Ball found that "the accuracy of claim construction rulings increases with the amount of experience [district] judges have in issuing such rulings,"[185] with the caveat that the underreporting of claim construction rulings, which varied by district, could have influenced the results.[186]

A further complicating factor when assessing the impact of patent law experience may be the Federal Circuit judges' degree of rapport with the trial judge whose claim construction rulings are under review. Specifically, a

176. David L. Schwartz, *Practice Makes Perfect? An Empirical Study of Claim Construction Reversal Rates in Patent Cases*, 107 MICH. L. REV. 223, 258–59 (2008) (reporting results suggesting that "[t]here is no compelling evidence that trial court judges are improving with experience on claim construction").

177. *Id.* at 242.

178. *Id.*

179. *Id.*

180. David L. Schwartz, *Courting Specialization: An Empirical Study of Claim Construction Comparing Patent Litigation Before Federal District Courts and the International Trade Commission*, 50 WM. & MARY L. REV. 1699, 1699 (2009) [hereinafter Schwartz, *Courting Specialization*].

181. *See* 19 U.S.C. § 1337(a)(1)(B).

182. *See* Schwartz, *Courting Specialization*, *supra* note 180, at 1702.

183. *Id.* at 1704.

184. *Id.* at 1720.

185. Kesan & Ball, *supra* note 71, at 442.

186. *Id.* at 442–43.

study by Mark Lemley and Shawn Miller reveals that the improvement in claim construction reversal rates among some trial judges might be attributable to their rapport with the appellate judges that developed while sitting by designation at the Federal Circuit, rather than any learning effects from their visit to the appellate court.[187]

The claim construction studies demonstrate the methodological difficulty in controlling for the differences in procedures and, in some cases, the availability of data, among ninety-four district courts in order to isolate the effect of experience. If experience cannot easily be isolated as a factor, it may be worthwhile to mitigate its potential impact as a diagnostic confounder by reducing the experience differentials among the trial judges. By setting up a single, dedicated patent trial court with judges who only hear patent cases, the variance in trial judge experience would decrease because all the judges on the specialized trial court would become highly experienced. Also, it may be easier to maintain and establish rapport between the Federal Circuit judges and all of the specialized trial judges: The latter would be a discrete group, whose ability to regularly sit by designation at the Federal Circuit can be more easily scheduled and coordinated than the district judges, such that all of the specialized judges would readily acquire the experience of sitting by designation and the unofficial deference that it brings.

More generally, reducing the variance in patent case adjudication experience at all levels—not just among the trial judges but also between the trial and appellate levels—would be especially beneficial in diagnosing problematic precedents, as it may reveal more clearly the contexts and circumstances under which some substantive patent doctrine is unworkable. A precedent can be more clearly shown to be suboptimal if it yields unpredictable or problematic results when applied by judges with similar levels of expertise at different levels of the judicial hierarchy. That is, the strength of the error signal (i.e., the signal-to-noise ratio) will increase with fewer confounding variables or where those variables have been mitigated. Greater clarity in how the doctrines are being (mis)applied may, in turn, suggest better fixes, especially if a pattern can be discerned about the errors (e.g., if certain errors repeat under certain circumstances).

187. Mark A. Lemley & Shawn P. Miller, *If You Can't Beat 'Em, Join 'Em? How Sitting by Designation Affects Judicial Behavior*, 94 TEX. L. REV. 451, 473 (2016) ("Both judges who heard claim construction cases on appeal and those who didn't benefitted from the after-designation effect in their subsequent claim construction appeals. . . . This suggests that neither substantive learning about claim construction nor even learning what Federal Circuit judges like to read in a claim construction opinion are at work . . . .").

B. Facilitating Treatment within a Sandbox

As discussed in the previous Section, a specialized patent trial court that provides a controlled environment for patent litigation can enhance diagnosis by removing confounders, thereby making it more likely that a proposed reform or change in the law can be appropriately tailored to have the intended salutary effect. Often, however, the problem is sufficiently complex such that the initial solution may fall short of expectations. When this happens, there may need to be further tweaking of the solution based on an updated understanding of the problem. That is, when an initial impression of the problem yields a suboptimal remedy, iteration may be required. Like the physician who tells a patient to try a remedy and call if the condition does not improve, sometimes the underlying condition may not be apparent until we find out which remedy does *not* work. Accordingly, in order to find a solution that is ultimately effective, having the ability to try out different solutions in an iterative manner is important.

As it happens, the controlled environment created by a specialized patent trial court that can promulgate its own rules provides an additional, complementary benefit beyond diagnosis—namely, the "sandboxing"[188] of patent litigation, which could make it easier to introduce changes to the law, iteratively fine-tune such changes, and facilitate experimentation because their impact would be largely localized to patent litigation, and thus unlikely to affect civil litigation in general. An accurate diagnosis, while necessary, is often insufficient by itself for surmounting the barriers to the adoption of a particular reform or change in the law. So long as patent litigation is conducted in federal district court and is governed by the Federal Rules of Civil Procedure and other procedural rules of general applicability, objections raised by an expanded universe of stakeholders outside the patent system, as well as concerns about trans-substantivity in the federal rules governing procedure, may limit the options for reforming patent litigation by Congress and the courts. However, such barriers to change could be lowered through the sandboxing effect of a specialized trial court.

By way of illustration, multiple patent reform bills have included a provision to make fee-shifting easier in order to address the problem of abusive patent litigation.[189] However, this provision has been successfully opposed by the trial lawyer lobby and others who are wary of setting a precedent that might be used to depart from the "American rule" (in which

188. *See supra* note 85 and accompanying text.

189. *See* PATENT PROGRESS, *supra* note 4.

each party pays its own legal fees)[190] in other types of litigation,[191] given that patent cases are heard in the same federal district courts alongside other cases before the same judges.[192] If Congress's ability to reform patent litigation is being hampered by intermeddling or opposition from interest groups outside the patent system, then isolating patent cases in a procedural sandbox and removing them from the district courts could help alleviate their concerns. As for the interest groups *within* the patent system (e.g., high-tech, big pharma), the isolation of patent cases, by itself, may have very little impact on their lobbying activities in Congress.[193] For these interest groups, another feature of the proposed court would help mitigate the effects of their lobbying: the ability to promulgate its own rules of practice. A meaningful procedural change may have a better chance of coming to fruition if it were promulgated as a rule by the proposed specialized trial court, rather than through an act of Congress, as the latter may be more strongly influenced by stakeholder lobbying than the former.[194]

In addition, concerns about trans-substantivity in the federal procedural rules may also limit possibilities for reforming patent litigation. For example, the Federal Circuit may not be able to impose or experiment with a rule of procedure for patent litigation that is tailored to the idiosyncrasies of patent law without exposing itself to the risk of override by the Supreme Court. The Supreme Court has generally viewed patent law exceptionalism with skepticism, and has struck down several Federal Circuit precedents that have put too much of a patent law-related gloss on general legal principles, such as those relating to injunctions[195] and declaratory judgment jurisdiction.[196] More recently, the Supreme Court rejected the Federal Circuit's long-standing practice of reviewing district court claim construction rulings

190. *See* Hardt v. Reliance Standard Life Ins. Co., 560 U.S. 242, 252–53 (2010) ("Our basic point of reference when considering the award of attorney's fees is the bedrock principle known as the 'American Rule': Each litigant pays his own attorney's fees, win or lose, unless a statute or contract provides otherwise." (internal quotation marks omitted)).

191. *See* Timothy B. Lee, *2015 Could Be The Year Congress Takes Action on Patent Trolls*, VOX (Apr. 27, 2015, 9:20 AM), https://www.vox.com/2015/4/27/8501489/patent-reform-2015 ("Senate Majority Leader Harry Reid (D-NV), an ally of trial lawyers who opposed the [patent reform] legislation, blocked it. . . . Trial lawyers are concerned that including . . . language [about fee-shifting] in a patent reform bill could set a precedent for applying similar rules to other types of litigation.").

192. *See* 28 U.S.C. § 1338(a).

193. *See supra* note 115 and accompanying text.

194. According to one estimate, "hundreds of millions of dollars [were] spent . . . to influence Congress on patent reform in 2013 and 2014." Tom Risen, *How the Tech Lobby Got Beat*, U.S. NEWS (Sept. 16, 2014, 3:00 PM), https://www.usnews.com/news/articles/2014/09/16/how-the-tech-lobby-got-beat.

195. eBay Inc. v. MercExchange, L.L.C., 547 U.S. 388 (2006).

196. MedImmune, Inc. v. Genentech, Inc., 549 U.S. 118 (2007).

wholly de novo, holding that this practice contravenes FRCP 52(a), which requires appellate courts to review subsidiary factual issues for clear error.[197]

The need for a patent litigation sandbox where the procedural rules can be iteratively tailored to accommodate the idiosyncratic nature of patent law is illustrated by the problem of filtering weak cases. An example that illustrates the strained interactions between the current general procedural rules and substantive patent law is the phenomenon in recent years where, in the wake of *Alice*,[198] increasing numbers of accused infringers have moved for dismissal under FRCP 12(b)(6) for failure to state a claim on the ground that the asserted claims are directed to subject matter ineligible for patenting (e.g., laws of nature, natural products/phenomena, abstract ideas).[199] These motions have been popular with defendants as a way to obtain early dismissals of weak cases with overly broad patents. The problem is that the development of patentable subject matter doctrine may be affected by its use in Rule 12(b)(6) dismissals, and vice versa.[200]

The difficulty of culling questionable patent assertions under the current procedural rules has created a situation where patentable subject matter challenges are being awkwardly repurposed as a tool for 12(b)(6) dismissals, which is further complicated by the extent to which such challenges raise questions of fact[201] or claim construction issues.[202] This may be an indication that the current pleading framework under *Bell Atlantic Corp. v. Twombly*[203] and *Ashcroft v. Iqbal*[204] does not appear to provide much of a barrier to questionable patent assertions. While there is a need for an efficient

197. Teva Pharms. USA, Inc. v. Sandoz, Inc., 574 U.S. 318, 326 (2015) ("[W]hen we held in *Markman* that the ultimate question of claim construction is for the judge and not the jury, we did not create an exception from the ordinary rule governing appellate review of factual matters. . . . [T]hat an issue is for the judge does not indicate that Rule 52(a) is inapplicable.").

198. Alice Corp. Pty. v. CLS Bank Int'l, 573 U.S. 208 (2014).

199. *See* Ana Friedman, *Section 101 Motions to Dismiss Still Alive in District Courts*, IPWATCHDOG (Dec. 14, 2018), https://www.ipwatchdog.com/2018/12/14/section-101-motions-dismiss/id=104136/.

200. For a detailed discussion on the intersection between eligibility issues and procedure, see Paul R. Gugliuzza, *The Procedure of Patent Eligibility*, 97 TEX. L. REV. 571 (2019).

201. Berkheimer v. HP Inc., 881 F.3d 1360, 1369 (Fed. Cir. 2018), *cert. denied*, 140 S. Ct. 911 (2020) ("While patent eligibility is ultimately a question of law, the district court erred in concluding there are no underlying factual questions to the § 101 inquiry. Whether something is well-understood, routine, and conventional to a skilled artisan at the time of the patent is a factual determination." (internal citation omitted)).

202. *See* Aatrix Software, Inc. v. Green Shades Software, Inc., 882 F.3d 1121, 1125 (Fed. Cir. 2018) ("If there are claim construction disputes at the Rule 12(b)(6) stage, we have held that either the court must proceed by adopting the non-moving party's constructions, or the court must resolve the disputes to whatever extent is needed to conduct the § 101 analysis . . . ." (internal citations omitted)).

203. 550 U.S. 544, 555–56 (2007).

204. 556 U.S. 662, 677–80 (2009).

mechanism for filtering non-meritorious pleadings, the ability of the district courts and the Federal Circuit to introduce changes to the pleading standards for patent cases under FRCP 8(a), or the manner of evaluating motions under FRCP 12(b)(6), is limited in light of trans-substantivity considerations. That is, the Federal Circuit must avoid creating idiosyncratic, patent law versions of FRCP 12(b)(6) and FRCP 8(a), and, at the same time, avoid distorting patentable subject matter doctrine when reviewing dismissals on appeal.

If, however, there were a specialized patent trial court empowered to promulgate its own procedural rules, it can adopt versions of FRCP 12(b)(6), FRCP 8(a), or other pleading rules that are tailored to the idiosyncrasies of patent law. Because patent litigation would occur in a sandbox under this proposal, the patent trial court's procedural rules can be iteratively tweaked as necessary to tackle abusive patent assertions[205] without affecting the rules for general litigation.

One might ask, however, why patent litigation warrants a sandbox in the form of a specialized trial court when it already has a variety of specialized procedural rules for use in the district courts, such as: the patent local rules adopted in several dozen district courts[206] to facilitate case management;[207] the Hatch-Waxman litigation regime for patent suits filed in connection with the Food and Drug Administration's approval process for generic drugs;[208] the patent-specific venue rule;[209] and the AIA joinder rule.[210] However, the primary rules that currently serve a gatekeeping function in patent litigation and affect the bulk of litigation activity—such as pleading and discovery—are procedural rules of general applicability found in the FRCP.[211] For this reason, multiple patent reform bills over the years have proposed changes to the Patent Act that would provide, by statute, special rules to tighten pleading standards[212] and impose limits on discovery[213] in patent cases.

205. The abusive assertions relate to the activities of entities variously called "patent trolls," patent assertion entities ("PAEs"), or non-practicing entities ("NPEs"). A search on Westlaw on February 15, 2020 reveals that within the past fifteen years, over 100 law journal articles have been written that contain the terms "patent troll" or PAE or NPE in the title.

206. *See supra* note 18 and accompanying text.

207. *See* O2 Micro Int'l Ltd. v. Monolithic Power Sys., Inc., 467 F.3d 1355, 1363 (Fed. Cir. 2006) (observing that "the [patent local] rules are essentially a series of case management orders").

208. *See* 21 U.S.C. § 355; *see also* 35 U.S.C. § 271(e).

209. 28 U.S.C. § 1400(b).

210. 35 U.S.C. § 299.

211. *See, e.g.*, FED. R. CIV. P. 8, 26–37.

212. *See, e.g.*, Innovation Act, H.R. 9, 114th Cong. § 3(a) (2015); Innovation Act, H.R. 3309, 113th Cong. § 3(a) (2013); Patent Abuse Reduction Act of 2013, S. 1013, 113th Cong. § 2(a); Patent Litigation and Innovation Act, H.R. 2639, 113th Cong. § 2(a) (2013).

213. *See, e.g.*, Innovation Act, H.R. 9, 114th Cong. § 3(d) (2015); Innovation Act, H.R. 3309, 113th Cong. § 3(d) (2013); Patent Abuse Reduction Act of 2013, S. 1013, 113th Cong. § 4; Patent Litigation and Innovation Act, H.R. 2639, 113th Cong. § 5 (2013).

In addition, there are several idiosyncratic aspects of patent law that make it desirable to have a sandbox to iteratively develop and fine-tune patent-specific procedural rules. As mentioned previously, claim construction is a gating item that permeates nearly all aspects of a patent case.[214] As such, it can profoundly affect case management issues, including scheduling,[215] dispositive motions,[216] and motions to dismiss under FRCP 12(b)(6).[217] Moreover, patent infringement is a strict liability cause of action;[218] the fact that knowledge or intent does not matter opens up, considerably, the universe of possible defendants—the vast majority of whom are not alleged to have copied the plaintiff's invention.[219] Further exacerbating the potential for suit is that patent law provides a "negative right"—the right to exclude—which, when combined with the voluminous patent grants by the PTO,[220] gives rise to thickets of overlapping rights: A single product may be covered by—and hence subject to suit for infringement of—an untold number of patents.[221] (For example, according to one estimate, a smartphone may be covered by 250,000 patents.[222]) Finally, patent litigation is currently conducted in generalist trial courts that are reviewed by a specialist appeals court—an idiosyncratic trial-appellate configuration that leads to a high reversal rate because the expert appellate judges have a tendency to second-guess the generalist trial judges, even on issues that are arguably factual.[223] Related to this last point is that, unlike other areas of the law, patent litigation is subject to an express mandate for uniformity, predictability, and the elimination of forum shopping, which led to the creation of the Federal Circuit.[224] These characteristics, in the aggregate,

214. *See supra* note 171 and accompanying text.

215. *See, e.g.*, *N.D. Cal. Patent Rules*, *supra* note 18, at § 4.

216. *See, e.g.*, *id.* at § 4-1(b) (requiring parties to identify "those terms for which construction may be case or claim dispositive").

217. *See supra* note 202 and accompanying text.

218. *See* 35 U.S.C. § 271(a).

219. Christopher A. Cotropia & Mark A. Lemley, *Copying in Patent Law*, 87 N.C. L. REV. 1421, 1424 (2009) ("[A] surprisingly small percentage of patent cases involve even allegations of copying, much less proof of copying. Only 10.9% of the complaints studied—21 of 193 complaints—contained even an allegation that the defendant copied the invention, either from the patent or from the plaintiff's commercial product.").

220. *See supra* note 43 and accompanying text.

221. *Cf.* Burk & Lemley, *Policy Levers*, *supra* note 76, at 1614.

222. Steve Lohr, *Apple-Samsung Case Shows Smartphone as Legal Magnet*, N.Y. TIMES (Aug. 25, 2012), https://www.nytimes.com/2012/08/26/technology/apple-samsung-case-shows-smartphone-as-lawsuit-magnet.html ("By one estimate, as many as 250,000 patents can be used to claim ownership of some technical or design element in a smartphone. Each patent is potentially a license to sue.").

223. *See infra* notes 256–258 and accompanying text.

224. *See supra* note 29 and accompanying text.

make patent cases difficult to manage using generally applicable procedural rules in the district courts.

C. Implementing a Specialized Patent Trial Court

As proposed in this Article, a controlled environment for patent litigation that reduces diagnostic confounders, and also provides a sandbox that facilitates the introduction and iteration of procedural reforms, could be achieved by setting up a specialized Article III patent trial court that is empowered to promulgate its own rules of practice and procedure. This proposed court will serve as the exclusive trial-level venue for patent cases in the United States, where a single set of procedural rules will be applied by its judges, all of whom will have (or will acquire) substantial experience in patent case adjudication. As explained in Part II.A, this will help eliminate or reduce the magnitude of potential diagnostic confounders along at least three dimensions: procedural rules, venue, and trial judge experience. Another key feature is that the patent trial court would be empowered to adopt and modify its rules of practice without going through the cumbersome Federal Rules amendment process or requiring an act of Congress. As explained in greater detail in this Section, this arrangement creates a procedural sandbox that would allow the rules to be iteratively tweaked as necessary to facilitate diagnosis of problems in patent litigation and make it easier to craft potential solutions.

Although the proposal requires a single court, the judges of the specialized trial court need not all be located in a single physical building; the judges can maintain their chambers anywhere in the United States.[225] This would expand the pool for recruiting judges to serve on the court. Because cases would be assigned randomly to the judges to prevent forum shopping and selling, all pretrial activities would occur "on the papers" or through videoconferencing to obviate the need for the parties to appear in person. The feasibility of holding hearings without requiring in-person attendance has been established in recent years. For example, the PTAB's teleworking administrative patent judges ("APJs") have long participated in hearings through videoconferencing.[226] More recently, federal courts have

225. This is unlike the Federal Circuit, whose active judges are required to reside within fifty miles of the District of Columbia. 28 U.S.C. § 44(c).

226. *See* Wayne Stoner & Peter Dichiara, *A Practical Guide to* Inter Partes *Review* 21, WILMERHALE (Sept. 14, 2014), http://www.wilmerhale.com/-/media/files/Shared_Content/Events/Documents/WilmerHale-webinar-IPR-Post-Merits-Briefing-Considerations-17Sep14.pdf ("Remote APJs 'attend' via videoconference on a TV positioned next to the bench.").

been holding motion hearings[227] and even jury trials[228] through videoconferencing due to the COVID-19 pandemic. If an in-person jury trial is necessary, it can be held in any federal courthouse in the United States based on an analysis of the relevant justice (i.e., public interest) and convenience factors for evaluating venue options.[229] To ensure that the trial judge does not favor their own location for trial, the selection of the trial location would be made by a "venue panel" composed of three trial judges selected at random who would decide the trial location based on briefing by the parties. Once a location is selected, the trial judge and the parties would travel there to conduct the trial.

Key aspects of the proposed specialized patent trial court could be modeled after certain features of the United States Court of International Trade ("USCIT"), an Article III specialized trial court whose judgments are appealed to the Federal Circuit.[230] The proposal in this Article should not be confused with a proposal by John Pegram to grant the USCIT concurrent patent case jurisdiction with the district courts.[231] Unlike Pegram's plan, this Article does not propose changing the scope of the USCIT's original jurisdiction. Rather, the proposed specialized patent trial court will be a separate, standalone court that will be the *exclusive* trial-level venue for patent cases in the United States; the district courts will not hear patent cases under the proposal in this Article.

There are several features of the USCIT that may be instructive in the design and operation of the proposed specialized patent trial court. Although based in New York City, the geographical jurisdiction of the USCIT extends nationwide, and its judges may conduct trials in federal courthouses located

227. *See, e.g.*, Douglas H. Wilkins & Daniel I. Small, *Arguing Dispositive Motions Remotely in COVID Times*, MASS. LAWS. WKLY. (July 23, 2020), https://www.hklaw.com/-/media/files/insights/publications/2020/07/arguing-dispositive-motions-remotely-in-covid-times—massachusetts-law.pdf?la=he.

228. Ryan Davis, *In a First, Game Controller Patent Case Kicks Off on Zoom*, LAW360 (Jan. 25, 2021, 10:14 PM EST), https://www.law360.com/sports-and-betting/articles/1338857/in-a-first-game-controller-patent-case-kicks-off-on-zoom.

229. Of the traditional justice and convenience factors, the ones most relevant for situating jury trials by the specialized patent trial court include: ease of access to sources of proof; availability of compulsory process; cost of attendance for witnesses; practical considerations for trial; and local interest. *Cf.* In re TS Tech USA Corp., 551 F.3d 1315, 1319 (Fed. Cir. 2008) (listing traditional factors under Fifth Circuit law).

230. 28 U.S.C. § 1295(a)(5).

231. John B. Pegram, *Should There Be A U.S. Trial Court with A Specialization in Patent Litigation?*, 82 J. PAT. & TRADEMARK OFF. SOC'Y 765, 767 (2000); John B. Pegram, *Should the U.S. Court of International Trade Be Given Patent Jurisdiction Concurrent with That of the District Courts?*, 32 HOUS. L. REV. 67, 72 (1995).

anywhere in the United States.[232] Notably, the USCIT is empowered by statute to prescribe its own rules of practice and procedure.[233] Although the USCIT's rules are modeled after the Federal Rules of Civil Procedure,[234] it has various rules that either have been tailored to accommodate[235] or are unique to[236] international trade cases. The USCIT's rules are amended through a process that includes a "public notice and comment stage based upon recommendations of USCIT's Advisory Committee on Rules"[237] and approval by the USCIT judges.[238] Notably, the USCIT's rules, and any amendments thereto, do not go through the Federal Rules revision process and are thus not transmitted to Congress,[239] as that court has been given "blanket authority by statute to promulgate its own rules."[240] As such, the USCIT's process for amending its procedural rules is substantially more streamlined than the process for amending the Federal Rules of Civil Procedure, which entails an elaborate, multi-year process involving the Judicial Conference, the Supreme Court, and Congress.[241] More generally, the USCIT's ability to control its own rules of practice and procedure likely provides it with greater flexibility to experiment than the district courts. For example, it implemented a "Small Claims Pilot" in recent years "to test the feasibility of a small claims process."[242]

232. 28 U.S.C. § 256; *About the Court*, U.S. CT. OF INT'L TRADE, https://www.cit.uscourts.gov/about-court (last visited June 19, 2021).

233. *See* 28 U.S.C. § 2633(b) ("The Court of International Trade shall prescribe rules governing the summons, pleadings, and other papers, for their amendment, service, and filing, for consolidations, severances, suspensions of cases, and for other procedural matters.").

234. *See About the Court*, *supra* note 232.

235. *Compare* USCIT R. 3, *with* FED. R. CIV. P. 3.

236. *See, e.g.*, USCIT R. 56.1, 56.2, 56.3, 83.

237. JOSEPH I. LIEBMAN, 2 LAW AND PRACTICE OF U.S. REGULATION OF INTERNATIONAL TRADE § 23:1 (2021).

238. *See Notice Regarding USCIT Rules*, U.S. CT. OF INT'L TRADE, https://www.cit.uscourts.gov/notice-regarding-uscit-rules (last visited June 19, 2021) ("The official rules and forms of the U.S. Court of International Trade are those reflected in the record of the adoption of the rules and any amendments thereto as approved by the judges of the Court.").

239. *See* Stone Container Corp. v. United States, 229 F.3d 1345, 1354 (Fed. Cir. 2000) ("Congress authorized the Court of International Trade to establish its own procedural rules, *see* 28 U.S.C. § 2633(b), and unlike the Federal Rules of Civil Procedure, the Court of International Trade's rules are not required to be transmitted to Congress. *See* 28 U.S.C. § 2074(a).").

240. Yancheng Baolong Biochem. Prods. Co. v. United States, 406 F.3d 1377, 1383 (Fed. Cir. 2005) ("[T]he Rules of the Court of International Trade are not promulgated subject to congressional approval. The court is given blanket authority by statute to promulgate its own rules . . . .").

241. 28 U.S.C. §§ 2072–2074; *see also Pending Rules and Forms Amendments*, U.S. CTS. https://www.uscourts.gov/rules-policies/pending-rules-and-forms-amendments (last visited June 19, 2021).

242. *Small Claims Pilot*, U.S. CT. OF INT'L TRADE, https://www.cit.uscourts.gov/small-claims-pilot (last visited June 19, 2021).

Like the USCIT, the specialized patent trial court would be empowered to create its own rules of practice without going through the elaborate and time-consuming Federal Rules revision process.[243] This would allow the proposed court to make timely (and, if necessary, iterative) rule changes to tweak suboptimal procedural rules, keep up with the evolving tactics of patent litigants, and conduct experiments and pilot programs. It is also important that the creation of the rules of practice (and any subsequent amendments) not require an act of Congress, which is susceptible to lobbying.[244] Material changes to the rules governing patent litigation (e.g., pleading, discovery) may be more likely to occur through a court tweaking its rules of practice rather than through Congress, where many patent reform bills have languished.[245]

Furthermore, as alluded to previously, trans-substantivity concerns may be alleviated by virtue of the sandboxing effect provided by a specialized court that has control over its own set of rules that are separate from the Federal Rules.[246] To be safe, it would be advisable to include in the relevant statutory provision (and/or its legislative history) that grants the specialized patent trial court its rule-promulgating powers an express indication that the rules are intended to apply only in patent cases, without regard to trans-substantivity concerns.[247] This express indication may be helpful because, in all likelihood, the rules of practice and procedure used by the specialized patent trial court might initially resemble the FRCP—assuming that the trial judges are disinclined to create a new set of rules from scratch—from which the rules would be successively amended and customized as necessary to accommodate the idiosyncrasies of patent litigation.[248] The express indication could dissuade the Supreme Court from striking down or undoing a patent-idiosyncratic rule based on some perceived procedural norm grounded in the FRCP.

In addition to reducing diagnostic confounders arising from variations in the procedural rules, venue, and trial judge experience, a specialized patent trial court could also reduce confounders arising from settlement-selection effects by adopting rules and case management practices that make it more likely that the merits—and hence issues of substantive patent law—will be reached in a patent case. We may not know the extent to which certain precedents are problematic because patent cases frequently settle (on the

243. *See supra* note 113 and accompanying text.
244. *See supra* notes 189–194 and accompanying text.
245. *See* PATENT PROGRESS, *supra* note 4.
246. *See infra* Part II.B.
247. The Author thanks Joshua Sarnoff for this suggestion.
248. *See supra* notes 214–224 and accompanying text.

order of 90% of the time)[249] before they are invoked or tested on the merits. As such, high rates of settlement—especially those that occur early in the case—can impair the diagnosis and correction of suboptimal precedents. In district courts, settlement is a key docket management tool that arises not only from the uncertainty and expense of the litigation process, but also from its active encouragement by judges.[250] In a specialized patent trial court, it is expected that settlement pressure may be less intense than in the district courts. This is because a district court may have other matters that will need to be prioritized over patent cases—for example, criminal cases pursuant to the Speedy Trial Act[251]—which can lead to scheduling complications, delays in adjudication, or other sources of settlement pressure in patent cases that are exerted (intentionally or not) by district judges trying to manage their dockets. By contrast, the docket of a specialized patent trial court would consist of only one type of case—patent suits—which would allow case management to become more standardized and streamlined, such that the court might see fewer settlements while also becoming less reliant on them to manage its docket. Accordingly, a specialized patent trial court could make it more likely that the merits—and hence issues of substantive patent law—will be reached. Decreasing settlement pressure that otherwise would have prevented the merits from being adjudicated is important for diagnosing and fixing problematic precedents—which, for some doctrines (e.g., patentable subject matter), may be a highly iterative process.

Although the idea of establishing a specialized patent trial court has been proposed by multiple commentators, the diagnostic and change-facilitating benefits of such specialization have not been fully appreciated in the literature. Rather, the existing justifications proffered for a specialized court have focused primarily on improving the quality of adjudication, as well as eliminating forum shopping at the trial-court level.[252] For example, there are suggestions in the literature that specialized trial judges might adjudicate patent cases with greater efficiency and accuracy than generalists;[253] however, the evidence on this point is mixed, particularly on

249. *See supra* note 65 and accompanying text.

250. *See* FED. R. CIV. P. 16(a)(5) ("In any action, the court may order the attorneys and any unrepresented parties to appear for one or more pretrial conferences for such purposes as: . . . facilitating settlement.").

251. Speedy Trial Act, 18 U.S.C. §§ 3161–3174; *see also* Leonidas Ralph Mecham, *The Civil Justice Reform Act of 1990 Final Report*, 175 F.R.D. 62, 89 (1997) ("A court's criminal docket has a direct impact on its civil docket. Criminal procedural requirements such as the Speedy Trial Act and sentencing guidelines can be sources of delay in civil litigation. . . . Setting early and firm trial dates is often difficult because of the precedence of criminal cases.").

252. *See supra* notes 82–83 and accompanying text.

253. *See* Kesan & Ball, *supra* note 71, at 444 (reporting results suggesting that "the impact on the efficiency and accuracy of patent adjudication provides a real but modest case for the

the issue of claim construction,[254] as well as on the effectiveness of the Patent Pilot Program at the half-way mark.[255] Others have focused on whether the Federal Circuit might accord greater deference to the decisions of a specialized trial court[256]—thereby enhancing predictability—and temper its habit of treating mixed questions of law and fact as issues of law subject to de novo review,[257] which the Federal Circuit currently uses to second-guess generalist district judges.[258] Relatedly, the Federal Circuit has also attracted criticism for suboptimal precedents due to its preference for rigid, formalistic rules,[259] which, as noted by Rochelle Dreyfuss, ostensibly makes it easier for generalist trial judges to apply the law consistently.[260] In a similar vein, Peter Lee observes that the Federal Circuit's formalism may help reduce the information costs for lay judges who adjudicate patent cases.[261] In any event, one implication of the existing literature is that if the trial judges were specialized, the need (perceived or otherwise) for formalistic rules might be reduced.[262]

By creating a controlled environment, a specialized patent trial court would provide benefits that go beyond the existing theorized benefits relating

development of patent-specific judicial human capital at the trial level through the establishment of a specialized patent trial court").

254. *See supra* notes 176–187 and accompanying text.

255. *See infra* Part II.D.2.

256. *See, e.g.*, Rai, *Specialized Trial Courts*, *supra* note 71, at 880 ("A single patent trial court that had explicitly been given the imprimatur of authority over fact-finding would, in all likelihood, compel greater deference than the current trial courts.").

257. *See id.* at 879 (noting that the Federal Circuit has been "denominating questions that have factual foundations—for example, mixed questions of law and fact such as claim construction—as pure questions of law."); *see also* Rochelle Cooper Dreyfuss, *Giving the Federal Circuit a Run for Its Money: Challenging Patents in the PTAB*, 91 NOTRE DAME L. REV. 235, 266 (2015) [hereinafter Dreyfuss, *PTAB*] (observing that "by classifying heavily technical issues as legal questions, the court can review the district court's resolution de novo").

258. *See* Rai, *Specialized Trial Courts*, *supra* note 71, at 879 ("Given the trial courts' lack of familiarity with patent cases, the Federal Circuit's suspicion of trial court decision-making, even on factual issues, is understandable.").

259. *See supra* note 75 and accompanying text.

260. Dreyfuss, *PTAB*, *supra* note 257, at 266 ("[O]ne reason why the Federal Circuit tends to create rules that the Supreme Court regards as overly 'rigid' may be that it is drawing bright lines that nontechnical trial judges can apply with ease, thereby effectuating its perceived mandate to ensure the uniform application of patent law.").

261. Peter Lee, *Patent Law and the Two Cultures*, 120 YALE L.J. 2, 29 (2010) ("Federal Circuit formalism is performing more work than initially meets the eye. . . . [T]his doctrinal methodology helps reduce information costs associated with lay engagement with technology. In general, formalism truncates and circumscribes legal inquiries, thus decreasing the extent to which lay judges must engage technologically challenging subject matter." (footnote omitted)).

262. *See* Dreyfuss, *Identity*, *supra* note 76, at 804 ("With confidence that the lower courts have the technological capacity to follow its policies, the Federal Circuit would no longer need to straightjacket their decisionmaking.").

to efficiency, accuracy, deference, and forum shopping. Specifically, a specialized patent trial court could help localize and isolate problems in patent litigation to allow for better diagnoses and faster adoption of targeted fixes. Right now, patent litigation is conducted in federal district courts just like other litigation. Accordingly, at the present time, patent law and patent litigation cannot be fixed without fixing civil litigation in general—which substantially increases the difficulty of achieving meaningful reforms.

D. Is it Really Necessary?

Given the suspicion of specialized courts in the literature,[263] some may ask whether it is truly necessary to set up a patent trial court in light of certain developments within the past decade, such as the AIA post-issuance proceedings at the PTAB and the Patent Pilot Program. I address each of these in turn.

1. AIA Proceedings at the PTAB

Since their introduction in 2011, the AIA post-issuance proceedings[264] (especially Inter Partes Review) have provided the public a low-cost alternative to federal court litigation for challenging patents of questionable validity, as well as those that are asserted (or likely to be asserted) in nuisance suits. In the first few years after their introduction, the rate of invalidation in these AIA proceedings was sufficiently high that the PTAB was dubbed a "death squad" for patents.[265] For this reason, some may be skeptical of the need for additional reforms, such as setting up a specialized trial court.

But there is no guarantee that the PTAB's challenger-friendly performance will last: The PTO, as an executive agency led by a political appointee, is susceptible to shifting priorities, which might also affect the PTAB's operation. Indeed, after Andrei Iancu's appointment as Director of the PTO in 2018,[266] the agency instituted several reforms that have made the post-issuance proceedings more patentee-friendly. For example, the claim construction rule used by the PTAB has been changed from the "broadest reasonable interpretation" ("BRI") to the *Phillips*[267] standard used in the

263. *See infra* Part III.

264. *See supra* notes 131–133 and accompanying text.

265. *See* Ryan Davis, *PTAB's 'Death Squad' Label Not Totally Off-Base, Chief Says*, LAW360 (Aug. 14, 2014, 5:47 PM), https://www.law360.com/articles/567550/ptab-s-death-squad-label-not-totally-off-base-chief-says.

266. Press Release, U.S. Pat. & Trademark Off., Andrei Iancu Begins Role as New Director of United States Patent and Trademark Office (Feb. 8, 2018), https://www.uspto.gov/about-us/news-updates/andrei-iancu-begins-role-new-director-united-states-patent-and-trademark.

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

district courts,[268] which is arguably not as loose as BRI, thus possibly making it more difficult to prove invalidity using prior art.[269] The agency also introduced a pilot program that gives the patent owner more options for claim amendments during post-issuance proceedings.[270] But the most controversial move by the agency thus far has been the push to deny institution of AIA post-issuance proceedings on a discretionary basis based on the stage or progress of parallel district court litigation.[271] The discretionary denial practice is grounded in a pair of PTAB decisions, *NHK Spring Co. v. Intri-Plex Technologies, Inc*.[272] and *Apple Inc. v. Fintiv, Inc.*,[273] that have been designated precedential with the approval of the PTO Director.[274] In June 2020, some stakeholders wrote letters to Congress, alleging that such discretionary denials have emboldened bad actors.[275] In August 2020, a group of technology companies sued the PTO to enjoin the application of the *NHK-Fintiv* rule.[276] Because an early district court trial date may increase the likelihood of a discretionary denial, the PTAB's *NHK-Fintiv* rule has given rise to a further basis for forum shopping/selling that favors districts that set early trial dates.[277]

268. *See* Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board, 83 Fed. Reg. 51,340 (Oct. 11, 2018) (codified at 37 C.F.R. pt. 42).

269. *IPR Petitions Spike On The Eve Of New Claim Construction Rules*, IPWIRE (Nov. 13, 2018), http://ipwire.com/stories/ipr-petitions-spike-on-the-eve-of-new-claim-construction-rules/.

270. Notice Regarding a New Pilot Program Concerning Motion to Amend Practice and Procedures in Trial Proceedings Under the America Invents Act Before the Patent Trial and Appeal Board, 84 Fed. Reg. 9497 (Mar. 15, 2019).

271. *See* Dani Kass, *Apple, Google Challenge IPR Discretionary Denial Precedent*, LAW360 (Aug. 31, 2020, 3:10 PM), https://www.law360.com/articles/1306002/apple-google-challenge-ipr-discretionary-denial-precedent [hereinafter Kass, *IPR*].

272. No. IPR2018-00752, 2018 WL 4373643 (P.T.A.B. Sept. 12, 2018).

273. No. IPR2020-00019, 2020 WL 2126495 (P.T.A.B. Mar. 20, 2020).

274. PTAB decisions are evaluated for designation as precedential by a Precedential Opinion Panel, wherein "[n]o decision will be designated or de-designated as precedential or informative without the approval of the Director." *Patent Trial and Appeal Board Standard Operating Procedure 2* (Rev. 10), at 1, U.S. PAT. & TRADEMARK OFF., https://www.uspto.gov/sites/default/files/documents/SOP2%20R10%20FINAL.pdf (last visited June 19, 2021).

275. *See* Letter to House and Senate Judiciary Committees, at 1–2 (June 18, 2020), https://www.patentspostgrant.com/wp-content/uploads/sites/34/2020/06/ipr-discretionary-denial-letters538428483.pdf; *see also* Scott McKeown, *Congress Urged to Investigate PTAB Discretionary Denials*, ROPES & GRAY: PATENTS POST-GRANT (June 30, 2020), https://www.patentspostgrant.com/congress-urged-to-investigate-ptab-discretionary-denials/ (reporting on letters and linking to copies).

276. Complaint for Declaratory and Injunctive Relief, Apple Inc. v. Iancu (N.D. Cal. Aug. 31, 2020) (No. 5:20-cv-06128-EJD); *see also* Kass, *IPR*, *supra* note 271.

277. *See* McKeown, *supra* note 275 ("The vast majority of discretionary denials . . . are favoring aggressive trial schedules of Texas district courts.").

There are several ways the proposed specialized patent trial court can ameliorate this situation. *First*, there would be no forum shopping/selling based on the trial date because there would be a single forum, such that the judges would be less inclined to set artificially early trial dates to attract patentee-plaintiffs. *Second*, because the specialized patent trial court, as the sole forum, would mitigate various diagnostic confounders, it may allow lawmakers, stakeholders, and other interested observers to more clearly discern the impact of the PTAB's discretionary denials to determine whether any legislative intervention might be necessary. *Third*, because the specialized trial court would operate in a sandbox and be empowered to promulgate its own rules, it can react faster than the district courts to amend or iteratively tweak its procedural rules to mitigate the impact of a change in PTAB operations that may embolden bad actors. And *fourth*, the single-venue configuration of the specialized patent trial court could help mitigate judge-to-judge coordination problems in applying a rule to remedy the situation, which might be difficult to achieve with multiple district courts.

2. Patent Pilot Program

In 2011, Congress established a ten-year pilot program to enhance patent case expertise among district judges (the "Patent Pilot Program") with the goal of improving patent case adjudication.[278] Under the Patent Pilot Program, district judges are given the option to decline patent cases, which are then reassigned to designated "pilot judges" within their district who seek to increase their patent litigation experience.[279] However, an evaluation of the Patent Pilot Program at the half-way mark (five years) suggests that material improvements to patent case adjudication remain elusive: An empirical study by Amy Semet reveals that, on appeal, "[p]ilot judges fare no better than non-pilot judges, even when controlling for legal issues addressed, procedural posture, and experience, among other variables."[280] This result is consistent with a separate empirical study conducted by the Federal Judicial Center, which found that "pilot cases and nonpilot cases [were] 'correct' at approximately the same rate [on appeal]—72% of the time."[281]

278. Pilot Program in Certain District Courts, Pub. L. No. 111-349, 124 Stat. 3674 (2011).

279. *Id.* § 1(a)(1).

280. Amy Semet, *Specialized Trial Courts in Patent Litigation: A Review of the Patent Pilot Program's Impact on Appellate Reversal Rates at the Five-Year Mark*, 60 B.C. L. REV. 519, 522 (2019).

281. MARGARET S. WILLIAMS, REBECCA EYRE & JOE CECIL, FED. JUD. CTR., PATENT PILOT PROGRAM: FIVE-YEAR REPORT 36 (2016), https://www.fjc.gov/sites/default/files/2016/Patent%20Pilot%20Program%20Five-Year%20Report%20(2016).pdf. When the Federal Judicial Center gathered data for its study on

One interpretation of these results could be that the Patent Pilot Program, when measured half-way through its pilot period, has not yet had the intended effect of materially improving trial court adjudication, as measured by appellate outcomes. But another interpretation might be that there were confounders that made it difficult to isolate the impact of enhancing judicial experience in patent cases. As discussed previously, it may be difficult to reliably control for district-to-district differences in the applicable procedural rules (e.g., patent local rules) and case management practices,[282] especially given the substantial disparities in the volume of patent cases among districts as well as among individual pilot judges.[283] When comparing trial-level case dispositions between pilot and non-pilot judges, Semet observed that the results materially changed based on whether she included the Eastern District of Texas,[284] whose judges disfavor granting summary judgment[285] and have generally adopted procedures that are highly favorable to patentees in order to attract patent cases.[286] As discussed earlier, variations in procedure and case management practices, along with forum shopping/selling, are likely confounders.[287] Given that "[p]atent case filings across various district courts are not a random sample," Semet observes that "[s]election effects . . . present[] the most concerning methodological difficulty in analyzing the workings of the pilot program."[288] Semet adds that "a better method could exist for analyzing case complexity—the variable that would likely be the key confounding variable in this analysis in addition to the selection effect issue."[289]

It is not possible to know at this time whether the Patent Pilot Program is actually making a difference, given the difficulty of isolating the effect of increased expertise on patent case adjudication. The confounders Semet encountered resemble some of those associated with the claim construction studies discussed earlier, such as the difficulty of controlling for procedural

January 5, 2016, there were sixty-six "current" designated pilot judges, and an additional twenty-four judges who "previously served as designated judges but were not so designated as of January 5, 2016—most commonly as a result of leaving the bench." *Id.* at 2.

282. *See supra* Part II.A.1.

283. *See* Semet, *supra* note 280, at 565–66.

284. *Id.* at 548.

285. *See* Klerman & Reilly, *supra* note 54, at 251 ("[J]udges in the Eastern District of Texas grant summary judgment at less than one-quarter the rate of judges in other districts.").

286. *See id*. at 250 ("[J]udges in the Eastern District have consciously sought to attract patentees and have done so by departing from mainstream doctrine in a variety of procedural areas in a pro-patentee (pro-plaintiff) way.").

287. *See supra* Part II.A.2.

288. Semet, *supra* note 280, at 575.

289. *Id.* at 574.

variances and the nonrandom distribution of cases.[290] Because the specialized patent trial court would decrease both the number and the magnitude of such confounders—which would improve the diagnostic power of empirical studies—the inconclusive results of the Patent Pilot Program lend further support to the proposed court. And, like the Patent Pilot Program, the specialized patent trial court could be set up with an initial trial period of ten years, renewable on satisfactory performance, if stakeholders are wary of committing to a permanent court at its inception.

III. CAVEATS AND IMPLICATIONS

One might ask why greater specialization should be tolerated at the trial level when the Federal Circuit has problems of its own that arise from specialization, as amply documented in the literature.[291] A related concern may be that the proposed specialized patent trial court might aggravate existing problems. Assuming that the Federal Circuit will remain as is for the indefinite future, it is worth exploring how we can improve the existing patent litigation landscape where we have a single appellate court in which patent appeals are centralized. Accordingly, proposals to reform the Federal Circuit itself, which are explored elsewhere in the literature,[292] are beyond the scope of this Article, which focuses on reforms at the trial court level. Specifically, this Article uncovers a new, previously unappreciated role for a specialized patent trial court—namely, as a mechanism for facilitating both the diagnosis and treatment of problems in patent litigation, which has been resistant to reforms. This is a departure from the literature, which has focused almost exclusively on the role specialization might play in improving the quality or accuracy of adjudication.

It is possible that the diagnostic and reform-facilitating benefits of specialization at the trial court level—when aggregated with the quality- and

290. *See supra* Part II.A.3.

291. *See supra* notes 75–76 and *infra* notes 293–296 and accompanying text.

292. *See, e.g.*, Jeremy W. Bock, *Restructuring the Federal Circuit*, 3 N.Y.U. J. INTELL. PROP. & ENT. L. 197, 205 (2014) (proposing "staffing the Federal Circuit with district judges who serve staggered terms of limited duration"); Paul R. Gugliuzza, *Rethinking Federal Circuit Jurisdiction*, 100 GEO. L.J. 1437, 1445 (2012) ("[R]eimagining the [Federal Circuit's] *non*patent jurisdiction could push patent law to better account for innovation concerns."); Craig Allen Nard & John F. Duffy, *Rethinking Patent Law's Uniformity Principle*, 101 NW. U. L. REV. 1619, 1625 (2007) ("We propose that, in addition to the Federal Circuit, at least one extant circuit court should be allowed to hear district court appeals relating to patent law."); Lynda J. Oswald, *Improving Federal Circuit Doctrine Through Increased Cross-Pollination*, 54 AM. BUS. L.J. 247, 284 (2017) (proposing that "greater cross-pollination in patent doctrine" may be achieved by "requiring (1) Federal Circuit judges to sit by designation in the regional circuits on a regular and frequent basis and (2) regional circuit court judges to sit by designation in the Federal Circuit on a regular and frequent basis as well").

accuracy-enhancing benefits predicted in the literature—could outweigh the potential downsides of specialization, which include: the potential loss of percolation (because a single trial court is being proposed);[293] susceptibility to capture;[294] and tunnel vision[295] arising from the loss of the generalist perspective.[296] Given that these potential downsides are already applicable to the Federal Circuit by virtue of its exclusive jurisdiction over patent appeals, it is worth considering whether a specialized subordinate court would materially amplify them.[297] Each of these concerns is addressed below.

A. Impact on Percolation

Some may object to the proposal on the ground that restricting patent cases to one trial court might make procedural experimentation difficult because patent cases would be taken out of the district courts that can serve as "laboratories."[298] A related concern might be that the percolation of substantive patent law, which some commentators perceive as deficient in light of the Federal Circuit's exclusive jurisdiction,[299] could be made even more difficult under this proposal, given that the choice of venues for patent case filings will shrink from ninety-four to just one. When percolation takes the form of parallel experimentation, having multiple fora might be

293. *See, e.g.*, Nard & Duffy, *supra* note 292, at 1675 (observing that the centralization of all patent appeals at the Federal Circuit imposes "structural constraints that deprive the court of sister-circuit competition and a mechanism that would allow for incremental and tested innovations in the law"); Randall R. Rader, *The United States Court of Appeals for the Federal Circuit: The Promise and Perils of A Court of Limited Jurisdiction*, 5 MARQ. INTELL. PROP. L. REV. 1, 4 (2001) ("When the Federal Circuit speaks, that becomes the nation-wide rule and in many cases, once it is spoken there is less percolation, less chance for experimentation, less chance for what Justice Brandeis called the 'laboratory of federalism' . . . .").

294. *See* Rochelle Cooper Dreyfuss, *The Federal Circuit: A Case Study in Specialized Courts*, 64 N.Y.U. L. REV. 1, 3 (1989) [hereinafter Dreyfuss, *Case Study*]; *see also* J. Jonas Anderson, *Court Capture*, 59 B.C. L. REV. 1543 (2018) [hereinafter Anderson, *Court Capture*] (explaining how courts can be captured); Harold H. Bruff, *Specialized Courts in Administrative Law*, 43 ADMIN. L. REV. 329, 345 (1991) ("The vulnerability of specialized adjudication to perceptions of capture is partly due to the effects of a steady diet of subject matter and repeated advocacy from a single source.").

295. *See* Dreyfuss, *Case Study*, *supra* note 294, at 3.

296. *See* Bruff, *supra* note 294, at 331.

297. *Cf.* Rai, *Specialized Trial Courts*, *supra* note 71, at 880 ("[A]lthough a single patent trial court might be subject to the problems of capture and tunnel vision that potentially plague all specialized courts, these problems should have less force at the trial level than at the appellate level.").

298. *See, e.g.*, Xuan-Thao Nguyen, *Dynamic Federalism and Patent Law Reform*, 85 IND. L.J. 449, 451 (2010) ("Patent reform at the local level is dynamic as locales can serve as laboratories for changes . . . .").

299. *See supra* note 293 and accompanying text.

convenient. But the presence of multiple fora invites forum shopping and disuniformity in the application of the laws—two things that animated the creation of the Federal Circuit in the first place.[300]

As explained previously,[301] forum shopping and procedural disuniformity may yield another problem: they can be diagnostic confounders that make it difficult to evaluate whether a change in the law is effective or works as intended, especially when litigants are able to avoid the full impact of the law. Specifically, newly-enacted laws or new precedents can be open to varying interpretations, such that if one district court acts early and adopts an interpretation that allows the status quo to be largely preserved, then plaintiffs who prefer the status quo may seek to circumvent the change in the law by concentrating their filings in that district.[302] By contrast, with a single, specialized patent trial court, it is possible to hold the trial forum constant, thereby reducing venue-based confounders in assessing the impact of a change in the law. However, when we have only one forum, we lose the ability to have percolation among different courts. But how much percolation would we actually lose?

It is not clear that the percolation that currently exists amongst the district courts is of such high quality and sufficient quantity that it would allow us to dismiss out of hand a serious look at a specialized trial court. Indeed, the current system of patent litigation conducted in multiple district courts may not actually be well-suited for percolation on certain issues because forum shopping at the trial court level can distort it. In addition to allowing plaintiffs to circumvent new laws, forum shopping may also cause certain types of patent cases to be highly concentrated in certain jurisdictions, which can limit the type of meaningful percolation that can aid in the development of the law. For example, some district courts (e.g., E.D. Tex., N.D. Cal.) may have high concentrations of electronics and software patent cases,[303] while others (e.g., D. Del., D.N.J.) may attract pharmaceutical patent cases,[304] which may raise complex, arcane issues, such as FRAND licensing[305] and the Hatch-Waxman litigation framework,[306] respectively,

300. *See supra* note 29 and accompanying text.

301. *See supra* Part II.A.2.

302. *See supra* Part II.A.2.

303. *See* Fromer, *Patentography*, *supra* note 66, at 1498 fig.1, 1499 tbl.1.

304. *See id.* at 1501 fig.3, 1502 tbl.2.

305. In general, patents that are essential to technical standards are to be licensed under terms that are fair, reasonable, and non-discriminatory ("FRAND"). Abraham Kasdan & Michael J. Kasdan, *Recent Developments In The Licensing Of Standards Essential Patents*, NAT'L L. REV. (Aug. 30, 2019), https://www.natlawreview.com/article/recent-developments-licensing-standards-essential-patents-0.

306. *See supra* note 208 and accompanying text.

that are seldom encountered in other district courts. As such, depending on the issue, there may not be much percolation under the current system on a district-to-district basis. That is, for cases of a certain type that are disproportionally filed in just one or two districts, meaningful percolation is likely to exist primarily on a judge-to-judge[307] basis rather than on a district-to-district basis. For this reason, if all patent cases were filed in a single, patent-specific trial court where the judges are assigned randomly to cases, it is likely that the overall amount and quality of percolation (on a judge-to-judge basis)—on both substantive law and procedural issues—may not be materially worse than what they are currently. On some issues, the quantity of percolation might actually increase in a specialized patent trial court because certain case types would no longer be concentrated among a few judges (assuming that the total number of trial judges on the specialized court is larger than this group). In addition, the *quality* of the judge-to-judge percolation might actually improve not only because the cases would be randomly assigned but also because each trial judge on a specialized patent court would have a sophisticated understanding of patent law (as developed from the concentration of patent cases in a single court). As Jeanne Fromer has observed, one of the shortcomings of the current district courts that impairs their ability to function as effective laboratories is that many district judges lack a strong grasp of the intricacies of patent law.[308]

Furthermore, it might be easier in a specialized patent trial court to formally institute percolation on some discrete procedural issue and compare case outcomes between different groups of judges. That is, a single court can easily serve as a controlled environment for testing or comparing procedural options adopted by different groups of judges on that court, so long as the assignment of judges is random. Compared to multiple district courts—each having a different mix of cases, judges, and idiosyncrasies—a single patent trial court is likely to have fewer coordination problems when conducting pilot programs or other experiments.[309]

307. Judge-to-judge percolation would occur not only because of potential district-to-district variations in the procedural rules but also through the natural variation in how trial judges exercise discretion in applying a common set of rules. *Cf.* Robert G. Bone, *Who Decides? A Critical Look at Procedural Discretion*, 28 CARDOZO L. REV. 1961, 1966 (2007) (observing that "most discretionary decisions take place within some guidelines, principles, or constraints").

308. Jeanne C. Fromer, *District Courts as Patent Laboratories*, 1 U.C. IRVINE L. REV. 307, 315–16 (2011).

309. The literature suggests several potential areas for experimentation by the courts, including: claim construction, trial dynamics, fee shifting, and defenses. *See* Lisa Larrimore Ouellette, *Patent Experimentalism*, 101 VA. L. REV. 65, 110 (2015).

B. Susceptibility to Capture

In evaluating whether the proposed patent trial court might be susceptible to capture,[310] it may be instructive to look at the experience of the Federal Circuit because the litigants in patent-related appeals will largely correspond to those in the proposed specialized patent trial court. As noted by Jonas Anderson, the Federal Circuit is "a capture target" that "enjoys the attention of nearly every patent attorney in the land."[311] Although there is no definitive answer on whether the Federal Circuit has actually been captured, many scholars—for a variety of reasons—do not believe it has been.[312] John Golden, for example, is skeptical of the contention that the patent bar has captured the Federal Circuit, because, given the patent bar's heterogeneous nature, "interests plausibly ascribed to the patent bar can be used to explain virtually any shift in the law, regardless of its direction."[313] Arti Rai observes that while certain pro-patent tendencies of the Federal Circuit (e.g., viewing patents as ordinary property) might be suggestive of capture, "they do not . . . represent dispositive evidence of capture,"[314] particularly when viewed in a broader context with its other precedents (e.g., written description, doctrine of equivalents) that restrict the scope of patent rights.[315]

Along these lines, Rochelle Dreyfuss credits "[t]he presence of strong repeat players on both sides of the issues [as having] permitted the CAFC to escape allegations of capture."[316] Indeed, patent litigators at some of the largest firms often have both patentees and accused infringers as clients. In addition, the major stakeholders in the patent system have differing views on the appropriate scope of patent rights: the pharmaceutical industry will seek stronger patent protections, whereas the software and consumer electronics industries will often seek to rein in abusive assertions.[317] Furthermore, it is not uncommon for a large company to appear as a plaintiff in one case and

310. Capture theory has its origin in studies of regulatory agencies: "Traditionally, capture is thought to occur when an agency becomes too cozy with an industry that it regulates." Anderson, *Court Capture*, *supra* note 294, at 1545. "[W]hen . . . institutional safeguards break down, federal courts are exposed to capture in much the same manner as . . . federal agencies . . . ." *Id.* at 1547.

311. *Id.* at 1572 (emphasis omitted).

312. *See* J. Jonas Anderson, *Reining in a "Renegade" Court:* TC Heartland *and the Eastern District of Texas*, 39 CARDOZO L. REV. 1569, 1616–18 (2018) (surveying the literature).

313. John M. Golden, *The Supreme Court as "Prime Percolator": A Prescription for Appellate Review of Questions in Patent Law*, 56 UCLA L. REV. 657, 685 (2009) [hereinafter Golden, *Percolator*].

314. Rai, *Engaging Facts*, *supra* note 171, at 1112.

315. *Id.* at 1112–13.

316. Dreyfuss, *Case Study*, *supra* note 294, at 71.

317. *See supra* notes 79–80 and accompanying text.

as a defendant in another.[318] As Mark Janis notes, "patent enforcement litigation is inherently balanced, and this inherent balance discourages capture."[319] This is in line with Dreyfuss's conclusion that the "skepticism towards specialized courts [that] has been bred by the experience of the Tax Court (which is sometimes viewed as the government's court) or the Commerce Court (which was doomed by its perceived disposition in favor of railway owners) . . . may be misdirected when leveled at the CAFC."[320] The notion that a specialized court may be more resistant to capture if there are sophisticated litigants on both sides is also illustrated by the Delaware Chancery Court, which, according to Dreyfuss, is a court where "the costs of specialization seem minimal."[321] She notes that "a corporation making a tender offer in one transaction may be fighting one in the next deal, giving it little incentive to bias the judges in favor of one particular view on any issue of tender offer law."[322] If the existence of strong, repeat players on both sides helps the Federal Circuit avoid capture, then this rationale should also apply to the proposed specialized patent trial court.

More generally, it is not entirely clear that specialization, in and of itself, should be the central focus when evaluating the potential for judicial capture. This is because courts that arguably show signs of capture at the trial level include both specialized courts (e.g., the bankruptcy courts)[323] *and* generalist courts (e.g., the Eastern District of Texas).[324] Notably, in both the bankruptcy courts and the Eastern District of Texas, the behaviors that suggest capture are similar: the judges, for various reasons,[325] endeavor to attract a certain type of case, so they engage in forum selling by crafting procedural rules, case management practices, and rulings that make their courts attractive to the party that chooses the court.[326] As Jonas Anderson observes, "the specter of court capture likely cannot be eliminated," but "limit[ing their] ability to

318. *See* Mark D. Janis, *Patent Law in the Age of the Invisible Supreme Court*, 2001 U. ILL. L. REV. 387, 399 (2001).

319. *Id*. at 400.

320. Dreyfuss, *Case Study*, *supra* note 294, at 29–30.

321. Rochelle C. Dreyfuss, *Forums of the Future: The Role of Specialized Courts in Resolving Business Disputes*, 61 BROOK. L. REV. 1, 19 (1995).

322. *Id.* at 22.

323. LOPUCKI, *supra* note 126, at 19–21 (describing cozy relationship with local bankruptcy bar and professional benefits that accrue from presiding over high-profile cases).

324. Anderson, *Court Capture*, *supra* note 294, at 1551 (arguing that "there are some indications that the [Eastern District of Texas] has been captured by special interests," such as a revolving door between the federal bench and the local bar, as well as substantial economic benefits that accrue to the local community from the influx of patent suits).

325. In comparing the bankruptcy courts with the Eastern District of Texas, Klerman and Reilly observe that their "motives to attract cases were remarkably similar: increased status and power for the judges and more business for local lawyers." Klerman & Reilly, *supra* note 54, at 293.

326. *See id.* at 292–93.

attract cases . . . makes courts far less appealing as targets of capture . . . ."[327] Because the proposed specialized trial court will be the sole trial venue for patent cases, it may be less susceptible to the type of judicial capture seen in the Eastern District of Texas and the bankruptcy courts.

C. Impact on Precedents

Another concern might be that trial-level specialization could substantially reduce the generalist influence in patent case adjudication, potentially leading to tunnel vision.

One way to mitigate the loss of the generalist perspective would be to recruit the judges for the specialized court not from the patent litigation bar but instead from the existing population of district judges and regional circuit judges. It is contemplated that those judges would serve on the specialized trial court on a full-time basis for an indefinite duration—that is, they would be appointed to a new federal court. If it is desirable to further guard against the loss of the generalist perspective, those judges could serve full-time on the patent trial court for a set number of years and return to their previous duty stations in the federal judiciary, and other federal judges would rotate in on a regular, staggered basis. A rotation system would be feasible because, as previously discussed, the judges of the specialized patent trial court need not be housed in a single physical location and all pretrial proceedings may be handled remotely or on the papers.[328] It is important that a judge serves full-time on the patent trial court during their service period—as opposed to a part-time arrangement like the Foreign Intelligence Surveillance Court[329]—to eliminate potential diagnostic confounders that may arise from docket management pressures created by non-patent cases (especially criminal cases).[330] The primary caveat with a rotation system would be that the specialized patent trial court would regularly lose its most experienced judges.

Apart from concerns about the loss of the generalist perspective, the unease with having two-levels of specialization may also lie in the current suboptimal practices of the Federal Circuit that arise from its semi-specialized status, such as formalism and insufficient deference to trial court fact-finding.[331] But it is worth noting that some of the Federal Circuit's

327. Anderson, *Court Capture*, *supra* note 294, at 1551.

328. *See supra* Part II.C.

329. *About the Foreign Intelligence Surveillance Court*, FOREIGN INTEL. SURVEILLANCE CT., https://www.fisc.uscourts.gov/about-foreign-intelligence-surveillance-court ("Judges typically sit for one week at a time, on a rotating basis.") (last visited June 19, 2021).

330. *See supra* notes 250–251 and accompanying text.

331. *See supra* notes 75 and 256–258 and accompanying text.

problematic tendencies might actually be artifacts of its review of generalist trial judges instead of specialists.[332] It is possible, then, that specialization at the trial court level could moderate some of the Federal Circuit's suboptimal behaviors in patent case adjudication.

In addition, the proposed specialized trial court, by virtue of being in a procedural sandbox,[333] may be freer than the district courts to experiment with procedural rules that can compensate for suboptimal Federal Circuit precedents. Patent litigation is sufficiently complex such that there may be uncertainty as to whether some problem is grounded in a procedural rule, substantive patent law, or some combination thereof. When faced with such a problem, the specialized patent trial court can engage in an iterative cycle of diagnosis and treatment by successively tweaking its procedural rules and observing the results, which can lead to either: (1) material progress in resolving the problem if the underlying cause was primarily procedural; or (2) a revelation that the underlying cause is likely an artifact of suboptimal substantive law, which could inform the Federal Circuit as to the necessity of revising its precedents.

With respect to the development of substantive patent law precedents, a related concern might be that a specialized trial court might allow the Federal Circuit to further tighten its grip over patent law in undesirable ways.[334] But, could such a trial court instead serve as a counterweight? Since its creation, the Federal Circuit's dominant influence in the patent system has come at the expense of Congress[335] and the PTO.[336] In recent years, however, some scholars have observed that the PTAB has reclaimed some of the influence over the development of patent law from the Federal Circuit. Because the PTAB is a specialized patent tribunal from which appeals are heard by the Federal Circuit,[337] it may provide clues about the potential dynamics between the proposed specialized trial court and the Federal Circuit in the development of substantive patent law precedents.

The PTAB emerged as a major player in patent law when, in 2011, the AIA empowered it to hear adversarial validity challenges to issued patents,

332. *See supra* notes 256–261 and accompanying text.

333. *See supra* note 85 and accompanying text.

334. *See, e.g.*, Dreyfuss, *Identity*, *supra* note 76, at 804 ("Two levels of specialized courts would . . . likely produce law that is substantially out of the mainstream.").

335. Sapna Kumar, *Patent Court Specialization*, 104 IOWA L. REV. 2511, 2531 (2019) ("By engaging in quasi-legislative behavior and lobbying for Congress to stay out of patent law, the Federal Circuit takes away Congress's need to act and deprives the public of deliberative lawmaking.").

336. *Id.* at 2530 ("From the outset, the Federal Circuit disregarded the APA and used its expertise to undercut the PTO's delegated policymaking and fact-finding authority.").

337. 28 U.S.C. § 1295(a)(4)(A).

such as Inter Partes Review.[338] The PTAB judges, who have backgrounds in both patent law and a technical field,[339] conduct the AIA proceedings in a manner that, at times, resembles litigation in a trial court.[340] One of the ways that the PTAB may be able to influence the development of patent law is through what Rochelle Dreyfuss describes as its "preview capacity,"[341] in which the PTAB "is likely to be among the first to implement new Supreme Court pronouncements."[342] In other words, the PTAB, as a subordinate tribunal (relative to the Federal Circuit), will often have the first shot at substantively grappling with new patent law precedents.[343] This preview capacity, when exercised by the patent-savvy PTAB judges, has led Dreyfuss to conclude that "the PTAB could provide the Federal Circuit with a partner in the enterprise of interpreting patent law and implementing Supreme Court decisions"[344]—especially recent ones that the Federal Circuit might struggle with,[345] such as *Nautilus*[346] and *Alice*.[347] In addition, given the volume of proceedings it handles,[348] the PTAB would encounter certain issues more frequently than the Federal Circuit (because only a subset of proceedings are appealed), thereby giving the former a "repeat player" advantage in making sense of new precedents.[349] John Golden observes that "the post-issuance proceedings administered by the PTAB indeed do much to enhance" the PTO's potential as patent law's "prime-mover," which is "the government

338. 35 U.S.C. §§ 311–319.

339. *Id.* § 6 ("The administrative patent judges shall be persons of competent legal knowledge and scientific ability . . . .").

340. The PTO characterizes the AIA proceedings as "trials," and has published a trial practice guide for practitioners that provides guidance on matters such as discovery, live testimony, motion practice, oral hearings, and settlement. U.S. PAT. & TRADEMARK OFF., CONSOLIDATED TRIAL PRACTICE GUIDE, at i–v, 1 (2019), https://www.uspto.gov/TrialPracticeGuideConsolidated.

341. Dreyfuss, *PTAB*, *supra* note 257, at 261 (internal quotation marks omitted).

342. *Id.* at 240.

343. *See id*. at 261–62.

344. *Id.* at 240.

345. *See id.* at 261–62.

346. Nautilus, Inc. v. Biosig Instruments, Inc., 572 U.S. 898 (2014).

347. Alice Corp. Pty. v. CLS Bank Int'l, 573 U.S. 208 (2014).

348. For example, in Fiscal Year 2019, the PTAB processed 1,641 petitions for AIA proceedings, of which 840 were instituted, yielding 551 Final Written Decisions (FWD). MICHAEL TIERNEY & WILLIAM SAINDON, U.S. PAT. & TRADEMARK OFF., BOARDSIDE CHAT: NEW DEVELOPMENTS 7 (2020), https://www.uspto.gov/sites/default/files/documents/PTAB_boardside_chat_new_trial_stats_sas_and_operational_faqs_06_11_2020.pdf.

349. *See* Dreyfuss, *PTAB*, *supra* note 257, at 261–62 (observing that while the Federal Circuit in *Nautilus* "was having a very difficult time coming up with a workable approach," the PTAB's "[r]epeated exposure to definiteness problems in CBMs (and eventually in PGRs) [has led] to the development of nuanced and context-specific standards").

body that is likely to be the first to address many patent law issues in a centralized and systematic fashion."[350]

Like the PTAB, the judges on the proposed specialized patent trial court will be experts in patent law, and will handle a high volume of cases.[351] And when new precedents emerge—whether from the Supreme Court or the Federal Circuit—the proposed specialized patent trial court's subordinate position in the adjudicatory hierarchy, along with the centralization of all patent cases in that court, will provide it with opportunities to explore and apply new precedents sooner and more often than the Federal Circuit. This combination of expertise, "preview capacity," and case concentration—traits that the proposed specialized patent trial court shares with the PTAB—may allow it to serve as a counterweight to the Federal Circuit in the development of patent law. It may be the case that this dynamic, where a trial court and the Federal Circuit would influence each other, is more likely to exist where the trial court shares the Federal Circuit's expertise. That is, it may take a specialized court to successfully take on a specialized court.

Relatedly, this preview capacity at the trial level may be best executed if there is a single court that sees a variety of cases, which could potentially counteract what Dan Burk and Mark Lemley have observed as the technological-specificity of Federal Circuit precedents.[352] Venue reform proposals that tie venue to some characteristic of the accused infringer (e.g., principal place of business, market, etc.) may result in technological clustering of patent cases in certain districts (e.g., software cases in the Northern District of California, pharmaceutical cases in the District of New Jersey). Although such clustering might allow the judges of a particular district to develop expertise in a particular technology, it might also aggravate the balkanization of substantive patent law by industry or technology, which, in some cases, could lead to suboptimal results (assuming that we want to maintain a unitary patent system). Compared to trial judges who are exposed to a limited universe of technologies, judges who preside over cases that present a greater variety of technologies may be in a better position to craft a balanced rule that is workable across most technologies. This is one of the things that the Federal Circuit is presently struggling with, particularly in relation to its patentable subject matter case law, which, according to some

350. John M. Golden, *Working Without* Chevron*: The PTO As Prime Mover*, 65 DUKE L.J. 1657, 1691–92 (2016).

351. 3,347 new patent cases were filed in the district courts in 2019. *2019 Patent Dispute Report-Year in Review*, fig.1, UNIFIED PATS. (Jan. 1, 2020), https://www.unifiedpatents.com/insights/2019/12/30/q4-2019-patent-dispute-report.

352. Dan L. Burk & Mark A. Lemley, *Is Patent Law Technology-Specific?*, 17 BERKELEY TECH. L.J. 1155 (2002).

observers, has been a positive development for the software industry, but has been a poor fit for the life sciences industry.[353]

If there were a specialized patent trial court that was the sole trial venue, it would be exposed to just as much (or greater) technological variety as the Federal Circuit, such that the trial court's "preview function" could be more helpful in later shaping the appellate court's thinking on crafting a rule that can work across different technologies. This is because the burden of crafting a suitable trans-technological rule would no longer fall on the Federal Circuit in the first instance, but would also be picked up by the trial court by virtue of handling a technologically-varied docket. For this reason, the "preview function" provided by a trial court that has a docket with a high concentration of a certain type of technology might be less helpful.

Finally, it is difficult to predict whether any problems that might arise with a specialized patent trial court will necessarily be materially worse than what exists currently. However, the problems that *do* arise might be diagnosed more accurately. This is because confounders that would have frustrated accurate diagnoses might be substantially mitigated by virtue of having a single patent trial court that reduces the number of variables and/or their range in patent litigation. In addition, the sandboxing effect will make it more likely that a working solution can be implemented. Thus, when Congress or the Supreme Court intervenes in response to a crisis in patent law that arises after the implementation of the specialized patent trial court, the reforms they hand down may be more likely to hit the mark. In short, establishing a patent trial court could make it less likely that a crisis will be wasted.[354] By contrast, under the current regime that uses generalist district courts, problematic practices and precedents may evade or frustrate reforms due to confounding variables and coordination problems. This may leave patent law stuck in a state of persistent—and resilient—suboptimality.[355]

CONCLUSION

Over the past several decades, reforms and changes in the law have had little effect in materially improving patent litigation. This reflects the difficulty of predicting how the patent litigation ecosystem would react to attempts at reform because it has too many moving parts—which can obscure

353. *Pharmaceutical and Software Industries at Odds on Potential Section 101 Reform*, LATHAM & WATKINS (May 15, 2017), https://www.lw.com/thoughtLeadership/pharmaceutical-software-industries-potential-section-101-reform.

354. The quote "never let a good crisis go to waste" has been variously attributed to Machiavelli, Winston Churchill, and, more recently, Rahm Emanuel.

355. *See* Golden, *Percolator*, *supra* note 313, at 674 (warning against the "danger of sticky suboptimality").

the true nature, scope, and underlying causes of some of its most intractable problems. As a result, there is a good chance that some change in the law that is introduced to solve such problems may end up missing the mark or falling short in some way. As one possible solution, this Article proposes setting up a specialized patent trial court that is empowered to promulgate its own rules of practice and procedure, which could serve as a controlled adjudicatory environment where diagnostic confounders can be mitigated and reforms can be iteratively fine-tuned.