Patent Law's Era of Normalcy

Mark A. Lemley[1]

An unusual and surprising thing is happening in patent law of late: very little. The four decades beginning in 1980 saw almost constant turmoil in patent law, with dramatic changes to the statute, a brand-new court in charge of patent appeals, Supreme Court interest not seen since before the invention of the writ of certiorari, dramatic growth in patent applications, patent grants, and patent lawsuits, unprecedented media and public attention, and two distinct swings in public policy, the first (in the 1980s and 1990s) strengthening patent rights after a period of perceived weakness and the second (in the 2000s and early 2010s) cutting back on the perceived excesses of the first. But in the last several years, since roughly 2018, patent law has settled down. That's not to say there aren't interesting and important questions still being addressed, or that there aren't people pushing for policy changes. But patent law in the last several years has entered an era of normalcy.[2]

A lawyer who entered the patent profession in 1980 has seen changes to almost every aspect of their job. In 1980, patent law (not yet "intellectual property" in most

---

[1] William H. Neukom Professor, Stanford Law School; partner, Lex Lumina LLP. Thanks to Jonas Anderson, Nikola Datzov, Laura Dolbow, Paul Gugliuzza, Rose Hagan, Tim Holbrook, Lisa Ouellette, Jason Rantanen, Jason Reinecke, Jake Sherkow, and Jay Thomas for comments on a prior draft and to Jack Gleiberman for research assistance.

[2] This paper is about U.S. patent law. There are important changes happening in other countries, from the opening of the Uniform Patent Court in Europe to the rise of global fights over standard-essential patents and injunctions. They are outside the subject of this paper.

circles)[3] was a relatively obscure backwater, the province of engineers who didn't interact much with the legal system. Less than 50,000 patents had issued the year before.[4] Those patents were overwhelmingly granted for mechanical inventions.[5] They generally named a single inventor, usually from the United States.[6] That inventor was unlikely to come from a university; universities rarely patented their inventions before 1980.[7] If more than one person claimed to have invented the same technology, the winner was the first to invent a new technology who was entitled to a patent.[8] A single invention was usually protected by one or at most a few patents.[9] Those patents lasted

---

[3] Mark A. Lemley, *Property, Intellectual Property, and Free Riding*, 83 TEX. L. REV. 1031, 1033-34 (2005).

[4] U.S. PAT. & TRADEMARK OFF., *Table of Issue Years and Patent Numbers, for Selected Document Types Issued Since 1836*, https://www.uspto.gov/web/offices/ac/ido/oeip/taf/issuyear.htm (archived __).

[5] John R. Allison & Mark A. Lemley, *The Growing Complexity of the United States Patent System*, 82 B.U. L. REV. 77, 80 (2002).

[6] *Id*. at 95, 97.

[7] The Bayh-Dole Act, which encouraged university patenting, was passed in 1980. Bayh-Dole Act, Pub. L. 96–517, § 6(a), 94 Stat. 3015.

[8] 35 U.S.C. 102(g) (2010) (amended 2011 by the America Invents Act).

[9] Mark A. Lemley, *Ten Things to Do About Patent Holdup of Standards (and One Not to)*, 48 B.C. L. Rev. 149, 150 (2007) ("generally, one patent covers one drug. By contrast, in the IT industries, there are usually multiple patents—sometimes hundreds or even thousands—on each new product."); Edward J. Egan & David J. Teece, *Untangling the Patent Thicket Literature* 3 (Tusher Ctr. for Mgmt. of Intell. Capital, No. 7, 2015), https://businessinnovation.berkeley.edu/wp-content/uploads/businessinnovation-archive/documents/Tusher-Center-Working-Paper-7.pdf.

for 17 years from the date they issued.[10] And if the Patent and Trademark Office (PTO) made a mistake in issuing a patent, there was no way for it to correct its error.[11]

Those patents were unlikely to be enforced in court; only about 750 patent lawsuits were filed in 1980.[12] When they were enforced, it was almost always in a bench trial, not a jury trial.[13] It was usually by a company that made a product and was suing a competitor.[14] Most of the patents enforced in court were invalidated.[15] If a party appealed that decision, that appeal went to the regional circuits, some of which (like the Eighth Circuit) were notorious for never having upheld a patent.[16]

Four decades later, none of those things is true. Intellectual property is front-page news,[17] and patent litigation is the province of both the top general practice law

---

[10] *See* 35 U.S.C. 154 (1993) (amended 1994 by the Uruguay Round Agreements Act).

[11] The first administrative revocation system, ex parte reexamination, was passed on December 12, 1980. *See* Pub. L. 96-517, § 6(a), 94 Stat. 3015 (codified as amended at 35 §§ 301-307).

[12] Gene Quinn, *Patent Litigation in the United States, 1980 to 2020*, IP WATCHDOG (Nov. 4, 2021), https://ipwatchdog.com/2021/11/04/patent-litigation-in-the-united-states-1980-to-2020/id=139510/ (Figure 3). Over the longer term, both the rate of litigation and win rates fluctuated in the nineteenth century. Chris Beauchamp, *The First Patent Litigation Explosion*, 125 YALE L.J. 796 (2016).

[13] *Id.* (Figure 1); Mark A. Lemley, *Why Do Juries Decide If Patents Are Valid?*, 99 VA. L. REV. 1673, 1703 (2013) (citing data noting the rise in patent jury trials from 1978 to 1994).

[14] *E.g.*, David L. Schwartz & Jay P. Kesan, Essay, *Analyzing the Role of Non-practicing Entities in the Patent System*, 99 CORNELL L. REV. 425, 426 (2014).

[15] John R. Allison & Mark A. Lemley, *Empirical Evidence on the Validity of Litigated Patents*, 26 AIPLA Q.J. 185, 192 n.12 (1998) (noting 35% validity rate during this period).

[16] Neil Jones, *The Five Most Publicized Patent Issues*, BUS. L. TODAY, AM. BAR ASS'N (May 22, 2014), https://www.americanbar.org/groups/business_law/resources/business-law-today/2014-may/the-five-most-publicized-patent-issues-today/ (noting that, as of 1982, the Eighth Circuit had not upheld the validity or infringement of a patent for 25 years).

[17] *E.g.*, Sheryl Gay Stolberg & Rebecca Robbins, *Moderna and U.S. at Odds Over Vaccine Patent Rights*, N.Y. TIMES (Nov. 9, 2021), https://www.nytimes.com/2021/11/09/us/moderna-

firms[18] and of a new wave of plaintiff's personal injury lawyers.[19] The PTO issues more than 300,000 patents a year, six times what it did forty years earlier.[20] Those patents are increasingly concentrated not in mechanical arts, but in software, communications, and internet law.[21]

Who filed those patents also changed dramatically. Today, invention is increasingly done by teams.[22] Those teams (and their employers) are increasingly

---

vaccine-patent.html? (published in print on page A1); Rebecca Robbins, *How a Drug Company Made $114 Billion Gaming the U.S. Patent System*, N.Y. TIMES (Jan. 28, 2023), https://www.nytimes.com/2023/01/28/business/humira-abbvie-monopoly.html (same).

[18] *See, e.g.*, Kathleen M. O'Malley, *The Intensifying National Interest in Patent Litigation*, 19 MARQ. INTELL. PROP. L. REV. 1, 6 (2015) (Federal Circuit Judge Kathleen O'Malley, stating that, as of 2015, "there are not more than a handful of large firms without vibrant patent litigation departments, and, of those few, most are probably actively trying to develop them"); Andrew Maloney, *Big Law Finds Growth Opportunities Through IP Hires*, AM. L. MAG. (Mar. 1, 2024, 5:00 A.M.), https://www.law.com/americanlawyer/2024/03/01/big-law-finds-growth-opportunities-through-ip-hires/?slreturn=20250519-41654. Commentators have linked the Supreme Court's increasing interest in patent law to the elite bar's involvement in patent litigation. *See generally* Paul R. Gugliuzza, *The Supreme Court Bar at the Bar of Patents*, 95 NOTRE DAME L. REV. 1233 (2020).

[19] Ronen Avraham & John M. Golden, *"From PI to IP": Litigation Response to Tort Reform*, 20 AM. L & ECON. REV. 168, 171 (2018).

[20] U.S. PAT. & TRADEMARK OFF., *supra* note 4.

[21] Allison & Lemley, *supra* note 5, at 80; John R. Allison, Mark A. Lemley, & David L. Schwartz, *Our Divided Patent System*, 82 U. CHI. L. REV. 1073, 1076 (2015).

[22] Dennis Crouch, *The Team-Based Reality of Modern Innovation: Average Patent Now Lists More Than Three Inventors*, PATENTLY-O, https://patentlyo.com/patent/2024/11/reality-innovation-inventors.html (Nov. 18, 2024) ("[T]he average number of inventors per utility patent has reached 3.2 in 2024, nearly double the 1.7 inventors per patent seen in 1976."); John R. Allison & Mark A. Lemley, *Who's Patenting What? An Empirical Exploration of Patent Prosecution*, 53 VAND. L. REV. 2099, 2101-02 (2000)

global; more than half of all U.S. patents today issue to foreign inventors,[23] and many of the companies that obtain the most patents each year are based outside the U.S.[24] Universities are much more active in patenting than they were before the passage fo the Bayh-Dole Act in 1980, though their share of all patents is still small.[25]

The process of obtaining those patents has also changed. Patents now issue not to the first to invent but to the first inventor to file, meaning that if more than one person invents at around the same time (and they often do)[26] the person who gets to the patent office first is the one who gets the patent. Those patents last for twenty years from the date of filing, not seventeen years from the date of issuance,[27] lengthening term for most patents but reducing abuse of "submarine patents" by some.[28] Patents increasingly come not alone but in large families, driven by the growth of continuation

---

[23] U.S. PAT. & TRADEMARK OFF., *U.S. Patent Statistics Chart: Calendar Years 1963-2020*, https://www.uspto.gov/web/offices/ac/ido/oeip/taf/us_stat.htm (archived __) (foreign inventors were 53.2% of utility patent grants in 2020).

[24] U.S. PAT. & TRADEMARK OFF., *Top Organizations 2020*, https://www.uspto.gov/web/offices/ac/ido/oeip/taf/topo_20.htm (archived __). The top ten firms granted patents in 2020 were IBM (domestic), Samsung (foreign), Canon (foreign), Microsoft (domestic), Intel (domestic), LG (foreign), TSMC (foreign), Apple (domestic), Huawei (foreign) and Qualcomm (domestic). *Id.*

[25] U.S. PAT. & TRADEMARK OFF., U.S. Colleges and Universities—Utility Patent Grants 1969-2012, https://www.uspto.gov/web/offices/ac/ido/oeip/taf/univ/asgn/table_1_2012.htm (archived __) (noting that, in 2012, 1.89% of patents granted were assigned to universities, as compared to .64% in 1980).

[26] Mark A. Lemley, *The Myth of the Sole Inventor*, 110 MICH. L. REV. 709, 712 (2012).

[27] 35 U.S.C. § 154.

[28] Mark A. Lemley & Kimberly A. Moore, *Ending Abuse of Patent Continuations*, 84 B.U. L. REV. 63, 79-80, 84-85 (2004).

applications and the rise of double patenting.[29] That is particularly true in the life sciences.[30] Combined with the increased complexity of products in the IT industry, the result has been the proliferation of "patent thickets" in which hundreds, thousands, or even hundreds of thousands of patents may cover a single product.[31]

The process of enforcing those patents is also very different than it was in 1980. Patent validity can now be challenged not just in court but in the PTO through a variety of administrative revocation systems, including ex parte reexamination (added in 1980), inter partes review (IPR) (added in 1999 but significantly expanded in 2011), and post-grant review (added in 2011).[32] Patents can be enforced not just in court but in the International Trade Commission.[33] Despite the increase in avenues to challenge patent validity, patents are much more likely to be held valid today than they were in the 1970s.[34]

---

[29] *Id.* at 81-83; Mark A. Lemley & Lisa Larrimore Ouellette, *Fixing Double Patenting*, 74 AM. U. L. REV. 1013, 1027-28 (2025).

[30] Lemley & Moore, *supra* note 28; Robin Feldman, *May Your Drug Price Be Evergreen*, 5 J.L. & BIOSCIENCES 590, 597 (2018); Michael A. Carrier & Steve D. Shadowen, *Product Hopping: A New Framework*, 92 NOTRE DAME L. REV. 167, 171 (2016); S. Sean Tu & Mark A. Lemley, *What Litigators Can Teach the Patent Office About Pharmaceutical Patents*, 99 WASH. U. L. REV. 1673, 1682 (2022).

[31] Gideon Parchomovsky & R. Polk Wagner, *Patent Portfolios*, 154 U. PENN. L. REV. 1, 62-63 (2005); Carl Shapiro, *Navigating the Patent Thicket: Cross Licenses, Patent Pools, and Standard Setting*, 1 INNOVATION POLICY & ECON. 119, 122-23 (2000).

[32] 35 U.S.C. §§ 302 (re-examination), 311 (IPR), 321 (post-grant review).

[33] 19 U.S.C. § 1337. While patent enforcement at the ITC was around before 1980, statutory changes in 1988 made it accessible to many more plaintiffs, not just domestic manufacturers. 19 U.S.C. § 1337(a)(3).

[34] Compare the validity rate of 36% in the 1970s to a steady 55% validity rate for the last several decades. *See* Allison & Lemley, *supra* note 15, at 260; John R. Allison, Mark A. Lemley & David

Patent litigation is much more common than it was in 1980, with about 4000 suits filed each year, more than five times as many as in 1980.[35] And it looks very different than it did in 1980. Those suits are increasingly filed in a few favorite plaintiff's venues such as the Eastern and Western Districts of Texas and the District of Delaware, which have become popular forum-shopping destinations and which in some cases affirmatively seek to attract patent suits;[36] none were common forums for patent cases before 1980. Forum shopping has persisted despite significant efforts by courts to rein it in.[37] But one opportunity for forum shopping at the appellate level has disappeared. Since 1982, all appeals in patent cases go to the newly-created Court of Appeals for the Federal Circuit.

The nature of those suits has also changed. Patent suits in 1980 tended to be between competitors, generally in the mechanical or chemical industries. No longer. A

L. Schwartz, *Understanding the Realities of Modern Patent Litigation*, 92 TEX. L. REV. 1769 (2014) (finding 42.4% invalidity rates in cases decided 2009-2013).

[35] U.S. COURTS, Table C-2—U.S. District Courts–Civil Statistical Tables For The Federal Judiciary (December 31, 2024), https://www.uscourts.gov/data-news/data-tables/2024/12/31/statistical-tables-federal-judiciary/c-2 (archived __).

[36] J. Jonas Anderson & Paul R. Gugliuzza, *Federal Judge Seeks Patent Cases*, 71 DUKE L. REV. 419, 421-23 (2021); Daniel Klerman & Greg Reilly, *Forum Selling*, 89 S. CALIF. L. REV. 241, 247-80 (2016).

[37] *See* TC Heartland LLC v. Kraft Foods Group Brands LLC, 581 U.S. 258, 262 (2017) (holding that corporations "reside" only in their State of incorporation under the patent venue statute); Order Assigning the Business of the Court as it Relates to Patent Cases (W.D. Tex, May 30, 2024), https://www.txwd.uscourts.gov/wp-content/uploads/2024/05/Order-re-Patent-Cases-05302024.pdf (requiring cases filed in the Western District of Texas to be randomly assigned, and requiring a motion to consolidate related cases).

large fraction of suits are in the computer and communications industries.[38] Many of those patent suits today are filed not just by companies seeking to prevent infringement by a competitor, but by "non-practicing entities"—companies that don't make any products. NPEs now account for roughly half of all patent suits.[39] Most of these are "patent assertion entities" (PAEs), otherwise known as "patent trolls" -- companies in the business of buying up patents from others in order to assert them, frequently against dozens of different defendants.[40]

Another significant change in the subject matter of patent suits involves the pharmaceutical industry. Before 1984, patent suits over pharmaceuticals were rare because generic drugs were rare. The 1984 Hatch-Waxman Act changed that, making it easier to get approval for generic drugs and creating incentives to challenge patents on drugs.[41] It also created a complex regulatory scheme for evaluating drug patents,[42] and the result has been a significant number of patent and related antitrust suits between pharmaceutical patent owners and generic competitors, something that didn't exist

---

[38] John R. Allison et al., *Our Divided Patent System*, 82 U. CHI. L. REV. 1073 (2015).

[39] Shawn P. Miller et al., *Who's Suing Us? Decoding Patent Plaintiffs since 2000 with the Stanford NPE Litigation Dataset*, 21 STAN. TECH. L. REV. 234, 240 (2018). According to the Stanford NPE Litigation Dataset, of cases filed between January 1, 2015 and January 1, 2025, 7,925 were filed by patent-assertion entities out of 14,340 cases in total (55.3%). *See* STAN. L. SCH., NPE LITIGATION DATABASE, https://npe.law.stanford.edu/ (archived __) (filtering cases for categories 1, 4, 5).

[40] *Id.*

[41] 21 U.S.C. § 301 et seq.

[42] *Id.*

before 1984.[43] Congress has since created a somewhat different set of rules for biosimilars to biotechnology drugs.[44]

Plaintiffs generally try their cases before juries; the share of jury trials rose from 8.3% in 1978 to more than 70% by 1995.[45] With the rise of jury trials has come a new procedural mechanism for determining the meaning and scope of patent claims – the *Markman* hearing. Named for a 1996 Supreme Court decision that held that judges, not juries, decide the meaning of patent claims,[46] these hearings are ubiquitous in patent cases. They generally happen after the close of discovery but before summary judgment. And they are frequently dispositive of cases; once we know the meaning of disputed claim terms it is often clear whether the defendant's product infringes the patent.[47]

Patent litigation today is also commonly accompanied by an IPR, an administrative challenge to the validity of the patent before the Patent Trial and Appeal

---

43 Allison et al., *Divided, supra* note __.

44 *See* Robin Feldman, *Dance of the Biologics*, __ BERKELEY TECH. L.J. __ (forthcoming 2025) (describing this system).

45 Lemley, *supra* note 13, at 1706.

46 Markman v. Westview Instruments, Inc., 517 U.S. 370, 372 (1996).

47 "Claim construction is often dispositive of the other issues in the patent litigation." 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, 1708 (2009). Indeed, "of [cases] that make it to a *Markman* hearing, 50-80% settle thereafter but before trial." Mark A. Lemley, *Without Preamble*, 100 B.U. L. Rev. 357, 388 n.8 (2020). And, even when litigants do not settle, they often stipulate to entries of judgment designed to test an adverse claim construction by the district court. *See* BRK Brands, Inc. v. Nest Labs, Inc., 51 F. Supp. 3d 742, 744 (N.D. Ill. 2014) (Posner, J.) (recognizing that the Federal Circuit has reviewed claim construction from appeals of stipulated judgments, but questioning the practice).

Board (PTAB). The IPR proceeding didn't exist until 1999 and didn't exist in its current form until 2011, but it has become the way most patent validity disputes are resolved,[48] and appeals from the PTAB now occupy a large fraction of the Federal Circuit's patent docket.[49]

In short, the nature of patenting and of patent litigation – who participates and how it works – look quite different today than they did forty-five years ago.

Along with those changes in procedure and the patent marketplace have come perhaps even more dramatic changes in the substance of patent law. Almost every substantive patent doctrine has undergone significant changes since 1980.

- Patentable subject matter broadened dramatically beginning in 1980 with *Diamond v. Chakrabarty*[50] and *Diamond v. Diehr*[51] the following year, a trend that continued until, by 1998's *State Street Bank* decision,[52] as one commentator put it, "everything is patentable."[53] It stayed that way for a decade, until the Supreme

---

48 From 2021-2023, the PTAB resolved 4,053 cases (primarily IPR cases, with a small number of PGR cases). LEX MACHINA, PATENT LITIGATION REPORT 2024 at 25 fig.22 (2024). In contrast, district courts resolved 1,086 cases in that same period. *Id.* at 19 fig.16.

49 In 2023, for example, 433 appeals from the PTAB were filed in the Federal Circuit. *Id.* at 26 fig.23. Only 306 appeals from district courts were filed that year. *Id.* at 8 fig.4.

50 Diamond v. Chakrabarty, 447 U.S. 303 (1980).

51 Diamond v. Diehr, 450 U.S. 175 (1981).

52 State St. Bank & Tr. Co. v. Signature Fin. Grp., Inc., 149 F.3d 1368 (1998).

53 Michael Risch, *Everything is Patentable*, 75 TENN. L. REV. 591 (2008).

Court cut back on patentable subject matter in a series of four decisions from 2010 to 2014.[54]

- The rules for novelty have changed. As mentioned above, the most dramatic change was the move from first to invent to first inventor to file in 2011, which changed both the process and the substance of prior art. Along with that change came the elimination of some categories of prior art[55] and the creation of a new prior user right defense.[56] But that isn't the only change. Beginning in 1995 and again in 1999, Congress expanded the universe of prior art from U.S. activity to include some foreign activity.[57] It completed that expansion in 2011, and now prior art of all types can come from anywhere in the world.[58]
- The law and practice of obviousness have changed significantly over this period. Many courts were willing to find patents obvious in the 1970s. That changed with the creation of the Federal Circuit in 1982, which many (including judges on

---

[54] Bilski v. Kappos, 561 U.S. 593 (2010), Mayo Collaborative Servs. v. Prometheus Laby's, 566 U.S. 66 (2012), Ass'n for Molecular Pathology v. Myriad Genetics, Inc., 569 U.S. 576 (2013); Alice Corp. v. CLS Bank Int'l, 573 U.S. 208 (2014).

[55] Old 102(f) and (g) prior art no longer exist. *See* U.S. PAT. & TRADEMARK OFF., MANUAL OF PATENT EXAMINING PROCEDURE § 2151 (2024). That is probably also true of old 102(c), though the issue has not been resolved definitively. *See* Edward D. Manzo, *The Impact of the America Invents Act on Trade Secrets,* 13 J. MARSHALL REV. INTELL. PROP. L. 497, 515 (2014) ("Courts will need to consider the effect of the AIA in removing 35 U.S.C. Section 102(c) . . . . A question the courts will have to confront is whether the abandonment or forfeiture doctrines are nevertheless still available to protect the public interest against such patents.").

[56] 35 U.S.C. § 273.

[57] Pub. L. 106–113, app. I § 4806, 113 Stat. 1501A-590 (1999).

[58] 35 U.S.C. § 102.

the court) saw as intended to strengthen patent rights by making it harder to invalidate patents.[59] And the Federal Circuit did indeed make it harder to prove obviousness, constructing new limits on the doctrine such as the "teaching-suggestion-motivation" requirement[60] and changing the validity rate significantly.[61] The Supreme Court reversed that trend in *KSR v. Teleflex*,[62] making it easier to prove obviousness.[63]

- A Supreme Court decision in the 1960s had set a high bar for showing that patents were "useful," at least in the chemical industries.[64] Federal Circuit decisions have made utility doctrine much less important in practice.[65]

---

[59] *See* Allison & Lemley, *supra* note 15, at 187 ("The Federal Circuit is pro-patent, according to some views, or anti-patent according to others."); H.R. Rep. No. 97-312, at 4–5 (1981) ("[S]ome circuit courts are regarded as 'pro-patent' and others 'anti-patent,' and much time and money is expended in 'shopping' for a favorable venue . . . . [T]he validity of a patent is too dependent upon geography (i.e., the accident of judicial venue) to make effective business planning possible."); Rochelle Cooper Dreyfuss, "*The Federal Circuit: A Case Study in Specialized Courts*," 64 N.Y.U. L. REV. 1 (1989).

[60] Ryan T. Holte & Ted Sichelman, *Cycles of Obviousness*, 105 IOWA L. REV. 107, 113 (2019) ("Over time, critics of the TSM test claimed the Federal Circuit favored patentees in obviousness determinations . . . ."); KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398, 419 (2007) (noting that the Federal Circuit had transformed the TSM test "into a rigid rule limiting the obviousness inquiry" in some cases).

[61] Allison & Lemley, *supra* note 15, at 206 (finding that Federal Circuit's 55% validity rate was "significantly higher" than the pre-Federal Circuit rate)

[62] *KSR*, 550 U.S. at 427-28.

[63] Holte & Sichelman, *supra* note 60, at 147 ("[T]he Federal Circuit's increased likelihood of finding obviousness post-KSR was about 10%, compared to 20% for the district courts.").

[64] Brenner v. Manson, 383 U.S. 519 (1966).

[65] *See, e.g.*, *In re* Brana, 51 F.3d 1560, 1567 (Fed. Cir. 1995) (holding that post-filing evidence can demonstrate utility that existed at filing); Juicy Whip, Inc. v. Orange Bang, Inc., 185 F.3d 1364, 1367 (Fed. Cir. 1999) (holding that a product's ability to "imitate" some other product, as cubic zirconia imitates diamonds, constitutes utility).

- The law of disclosure has changed significantly in multiple ways. The basic rules of enablement have tightened over the last two decades in ways that make it almost impossible to obtain patents on genus claims in the chemical arts, something that was once common.[66] Written description, which before 1980 was a doctrine that applied only in patent priority disputes, has developed into a second disclosure requirement with reach independent of the enablement doctrine.[67] And the doctrine of indefiniteness, which the Federal Circuit had held essentially never applied, was broadened by the Supreme Court,[68] though subsequent Federal Circuit cases suggest it may still apply only rarely.[69]
- Infringement too looks very different than it did in 1980. I have already discussed the rise of the *Markman* hearing to construe patent claims pretrial. *Markman* has had a dramatic effect in practice on infringement cases. Once we

---

[66] Dmitry Karshtedt, Mark A. Lemley, Sean B. Seymore, *The Death of the Genus Claim*, 35 HARV. J.L. & TECH. 1, 13 (2021).

[67] Ariad Pharms., Inc. v. Eli Lilly & Co., 598 F.3d 1336, 1340 (Fed. Cir. 2010) (reaffirming that § 112 "contains a written description requirement separate from enablement"); Gentry Gallery, Inc. v. Berkline Corp., 134 F.3d 1473, 1479 (Fed. Cir. 1998).

[68] Nautilus, Inc. v. Biosig Instruments, Inc., 572 U.S. 898, 901 (2014).

[69] Jason Rantanen, *Teva, Nautilus, and Change Without Change*, 18 STAN. TECH. L. REV. 430, 447 (2015) ("The Supreme Court's ruling in *Nautilus*, in short, appears to have produced no change at all. . . . In applying the *Nautilus* standard, the Federal Circuit is still treating claims as reasonably certain as long as the person construing the claim can arrive at a reasonable construction. And, although the Federal Circuit has not come out and said it (nor is it likely to), the only claims for which one cannot arrive at a reasonable construction are those that are not amenable to construction or are insolubly ambiguous."). The exception involves means-plus-function claims in the software industry, where courts regularly invalidate claims for failure to disclose an algorithm implementing the claim. *See, e.g.*, Fintiv, Inc. v. PayPal Holdings, Inc., 2025 WL 1240879 (Fed. Cir. Apr. 30, 2025).

know what a patent covers and doesn't cover, that is often the end of the infringement dispute, because if there is no dispute about how the defendant's product works literal infringement is a simple matter of comparing the two. And indeed parties often settle after *Markman*, or agree to a finding on infringement in order to prepare the case for appeal.[70] *Markman* has also affected the doctrine of equivalents, which went from being a central part of infringement analysis to something that was used only occasionally, in significant part because judges who had just construed claims were unwilling to reopen that decision for an equivalents analysis.[71]

Changes in infringement weren't limited to the basics of direct infringement, however. The Supreme Court significantly revamped the law of inducement, making it easier to prove the mental state requirement for inducement in two cases in the 2010s.[72] At the same time, courts developed a new doctrine to deal with "joint" or "divided" infringement claims, significantly limiting the ability of patent owners to claim that two or more parties jointly

---

[70] *See supra* note 47.

[71] John R. Allison & Mark A. Lemley, *The (Unnoticed) Demise of the Doctrine of Equivalents*, 59 STAN. L. REV. 955, 958 (2007).

[72] Glob.-Tech Appliances, Inc. v. SEB S.A., 563 U.S. 754, 768 (2011); Commil USA, LLC v. Cisco Sys., Inc., 575 U.S. 632, 642 (2015). Other changes resulted from the Supreme Court's "adoption" of the patent standard for inducement in copyright cases, which actually adopted a somewhat different test that has now been reimported into patent law. *See* Timothy Holbrook, *The Supreme Court's Quiet Revolution in Induced Patent Infringement*, 91 NOTRE DAME L. REV. 1007, 1010-25 (2016).

infringed a patent even though no one of them performed all the steps of the patented process.[73]

- The Federal Circuit wholly revamped the law of inequitable conduct, a defense that renders patents unenforceable if the patentee deceived the patent office. Responding to complaints about a "plague" of allegations of inequitable conduct, the en banc court tightened up the standards for proof of inequitable conduct,[74] with the result that counterclaims for inequitable conduct dropped from 17% of all cases to 8% in a matter of a few years.[75]
- The law of remedies has seen even more dramatic changes. The Federal Circuit set out a bright-line rule beginning in the 1980s that if a patentee won its suit it was entitled to an injunction. The Supreme Court reversed that rule in 2006, holding in *eBay v. MercExchange* that injunctions were available only after a case-by-case equitable analysis.[76] The result has been to significantly reduce the grant

---

[73] Limelight Networks, Inc. v. Akamai Techs., Inc., 572 U.S. 915 (2014); Akamai Techs., Inc. v. Limelight Networks, Inc., 797 F.3d 1020, 1023 (Fed. Cir. 2015) (en banc); Mark A. Lemley, et al., *Divided Infringement Claims*, 6 SEDONA CONF. J. 117, 119 (2005) ("Where is no agency relationship or similar coordination—for example where the different actors do not know each other at all, or are in an arm's-length business transaction—courts have not been willing to apply the law of inducement to aggregate the disparate acts of unrelated parties.").

[74] Therasense, Inc. v. Becton, Dickinson & Co., 649 F.3d 1276, 1289 (Fed. Cir. 2011) (en banc); *see also* Exergen Corp. v. Wal-Mart Stores, Inc., 575 F.3d 1312, 1327 (Fed. Cir. 2009) (applying heightened pleading standard to allegations of inequitable conduct).

[75] Robert D. Swanson, Comment, *The* Exergen *and* Therasense *Effects*, 66 STAN. L. REV. 695, 714 tbl.5 (2014).

[76] eBay Inc. v. MercExchange, L.L.C., 547 U.S. 388 (2006).

of injunctive relief, particularly for NPEs.[77] Courts also reintroduced and strengthened the doctrine of apportionment in patent damages[78] and gave judges an important gatekeeper role in weeding out dubious economic theories of damages.[79] They repeatedly changed the law for enhancement of damages for willful infringement during this period, varying the rule from one that effectively required anyone accused of patent infringement to get a written opinion of counsel[80] to one that replaced opinion of counsel with a standard of "objective recklessness"[81] to one that threw out both tests in favor of a word salad of synonyms for willfulness that effectively gave the question to the jury without guidance,[82] while separating and reserving for the judge the question of whether

---

[77] Christoper B. Seamen, *Permanent Injunctions in Patent Litigation After* eBay*: An Empirical Study*, 101 IOWA L. REV. 1949, 1990 fig.4 (2016).

[78] *See, e.g.*, Virnetx, Inc. v. Cisco Sys., Inc., 767 F.3d 1308, 1326 (Fed. Cir. 2014) ("[W]hen claims are drawn to an individual component of a multi-component product, it is the exception, not the rule, that damages may be based upon the value of the multi-component product."); Uniloc USA, Inc. v. Microsoft Corp., 632 F.3d 1292, 1315 (Fed. Cir. 2011) (rejecting the "25 percent rule of thumb" as "a fundamentally flawed tool for determining a baseline royalty rate in a hypothetical negotiation").

[79] *See, e.g.*, EcoFactor v. Google LLC, __ F.4th __ (Fed. Cir. 2025) (en banc); Commonwealth Sci. & Indus. Rsch. Organisation v. Cisco Sys., Inc., 809 F.3d 1295, 1301 (Fed. Cir. 2015) ("[G]iven the great financial incentive parties have to exploit the inherent imprecision in patent valuation, courts must be proactive to ensure that the testimony presented—using whatever methodology—is sufficiently reliable to support a damages award.")

[80] Underwater Devices Inc. v. Morrison-Knudsen Co., 717 F.2d 1380, 1390 (Fed. Cir. 1983) (creating a duty to obtain an opinion of counsel when accused of infringement). On the problems with this system, see Mark A. Lemley & Ragesh K. Tangri, *Ending Patent Law's Willfulness Game*, 18 BERK. TECH. L.J. 1085, 1099-1109 (2003).

[81] *In re* Seagate Tech., LLC, 497 F.3d 1360, 1365 (Fed. Cir. 2007) (en banc), *abrogated by* Halo Elecs., Inc. v. Pulse Elecs., Inc., 579 U.S. 93 (2016).

[82] Halo Elecs., 579 U.S. at 98.

a showing of willfulness actually justified enhancing damages.[83] The Supreme Court also revamped the law of attorney's fees, making it significantly easier for prevailing defendants to recover their fees.[84]

By almost every measure, then, the substantive law of patents, like the users of the patent system and the process, have undergone dramatic changes since 1980.

But it is notable that almost all those changes happened before 2018. In recent years, by contrast, patent law has settled into a routine. That's not to say there is nothing new, of course. The Supreme Court and the Federal Circuit continue to decide cases that matter to patent lawyers. But the kinds of sweeping reforms that had been the hallmark of the previous four decades seem a thing of the past.

The Supreme Court seems to have lost interest in substantive patent law, perhaps because the Justice most interested in it – Justice Breyer – is no longer on the Court.[85] While it still takes patent cases periodically, it takes somewhat fewer than it did in the previous two decades. While the Court has decided 62 patent cases since the creation of the Federal Circuit in 1982, and during the first two decades of the century

---

[83] *See, e.g.*, Presidio Components, Inc. v. Am. Tech. Ceramics Corp., 875 F.3d 1369, 1382 (Fed. Cir. 2017) (finding that district court did not abuse discretion in refusing to award enhanced damages, despite jury finding of willfulness).

[84] Octane Fitness, LLC v. ICON Health & Fitness, Inc., 572 U.S. 545 (2014); Highmark Inc. v. Allcare Health Mgmt. Sys., Inc., 572 U.S. 559 (2014).

[85] Empirical evidence casts some doubt on how significant his role was in deciding patent cases, but he was certainly the Justice most interested in the field substantively. Paul R. Gugliuzza & Mark A. Lemley, *Myths and Reality of Patent Law at the Supreme Court*, 104 B.U. L. Rev. 891, 937-42 (2024).

decided "more patent law cases than in the prior three decades combined,"[86] it has decided only three substantive patent cases since 2018 and in the last two terms has taken no patent cases at all.[87]

More important, most of those recent cases either aren't about substance at all[88] or, if they are, don't change the law or simply don't matter very much in the real world. The Court's last important change in patent law was in 2017, to restrict forum shopping – a procedural, not a substantive change.[89] It has decided two important substantive cases in the last decade – *Amgen v. Sanofi* and *Helsinn v. Teva* – but both decisions were 9-0 *affirmances* of changes the Federal Circuit had made to enablement law over the prior two decades (*Amgen*)[90] or of the Federal Circuit's conclusion that the AIA did not change the definition of prior art *(Helsinn*).[91]

Beyond that, recent Court patent cases have something of an instinct for the capillary. They are deciding fringe issues that don't much matter in the real world. The

---

86 Christa J. Laser, *Certiorari in Patent Cases*, 48 AIPLA Q.J. 569, 571 (2020).

87 Lisa Larrimore Oullette, *Supreme Court Patent Cases*, WRITTEN DESCRIPTION, https://writtendescription.blogspot.com/p/patents-scotus.html. This isn't disdain for IP issues more generally; the Court has taken a number of important copyright and trademark cases during the last few years. *E.g.* Jack Daniel's Properties, Inc. v. VIP Prods. LLC, 599 U.S. 140 (2023); Andy Warhol Found. for Visual Arts v. Goldsmith, 598 U.S. 508 (2023); Google LLC v. Oracle Am., 593 U.S. 1 (2021).

88 Gugliuzza & Lemley, *supra* note 85, at 908 (noting the prevalence of procedural issues in the Court's patent docket).

89 TC Heartland LLC v. Kraft Foods Grp. Brands LLC, 137 S. Ct. 1514 (2017).

90 Amgen Inc. v. Sanofi, 143 S. Ct. 1243, 1248 (2023).

91 Helsinn Healthcare S.A. v. Teva Pharms. USA, Inc., 139 S. Ct. 628, 630 (2019).

Court narrowed the scope of assignor estoppel,[92] an issue I personally care a lot about[93] but which no one would class as a central issue to patent law. The Court has issued *three* decisions in recent years on the scope of 35 U.S.C. § 271(f), a fairly obscure part of the infringement statute that covers unusual circumstances in which an infringer makes component parts in the U.S. and ships them abroad to be combined.[94] Section 271(f) isn't much used; one would be hard-pressed to find three Federal Circuit cases applying the statute that *didn't* end up getting Supreme Court review.[95] The Court has also ruled on whether the PTO can recover its attorneys fees even if it loses when it is sued under 35 U.S.C. 141, another obscure and rarely-used provision.[96] And it has decided whether the Post Office is a "person" that can participate in patent proceedings.[97] These are hardly decisions that shake the foundations of patent law.

The Federal Circuit too has settled into a period of normalcy. The prior four decades involved significant use of en banc at the Federal Circuit, granting en banc

---

[92] Minerva Surgical, Inc. v. Hologic, 141 S. Ct. 2298, 2302 (2021).

[93] *See generally* Mark A. Lemley, *Rethinking Assignor Estoppel*, 54 HOUS. L. REV. 513 (2016).

[94] WesternGeco LLC v. ION Geophysical Corp., 138 S. Ct. 2129, 2134 (2018); Life Techs. Corp. v. Promega Corp., 137 S. Ct. 734, 737-38 (2017); Microsoft Corp. v. AT&T Corp., 550 U.S. 437, 441 (2007).

[95] The Federal Circuit has not applied § 271(f) in a case since *WesternGeco*. The case has, however, been (mis)interpreted to change the law of patent damages in other cases. *See* Brumfeld v. IBG LLC, 97 F.4th 854, 871 (Fed. Cir. 2024).

[96] Peter v. Nantkwest, 140 S. Ct. 365 (2019).

[97] Return Mail, Inc. v. U.S.P.S., 139 S. Ct. 1853 (2019).

review in patent cases at a rate more than double that of other regional circuits.[98] Those cases produced a number of fractured and bitterly divided en banc decisions[99] and judges lamenting the creation of other circuit splits that should have been resolved en banc.[100] By contrast, the Court has only taken two patent cases en banc in the past seven years.[101] One was a design patent case, again one I personally care a lot about,[102] but which is outside the realm of normal (utility) patent law, and it was decided unanimously.[103] The other, *EcoFactor v. Google Inc.*,[104] promised to offer significant substantive guidance on the law of damages apportionment, but ended up only holding

---

[98] Ryan Vacca, *Revisiting the Federal Circuit En Banc*, 37 HARV. J.L. & TECH. 501, 508 & fig.1 (2024).

[99] *See, e.g.*, CLS Bank Int'l v. Alice Corp., 717 F.3d 1269, 1321 (Fed. Cir. 2013) (en banc) (en banc court splitting 5-5 on patentable subject matter), *rev'd*, 573 U.S. 208 (2014); SCA Hygiene Prods. Aktiebolag v. First Quality Baby Prods., LLC, 807 F.3d 1311 (Fed. Cir. 2015) (en banc court adopting, 6-5, a patent-specific doctrine of laches), *vacated in part*, 137 S. Ct. 954 (2017); Akamai Techs., Inc. v. Limelight Networks, Inc., 692 F.3d 1301, 1305 (Fed. Cir. 2012) (en banc) (per curiam) *rev'd*, 572 U.S. 915 (2014); Aqua Products Inc. v. Matal, 872 F.3d 1290 (Fed. Cir. 2017). Ryan Vacca notes that until 2019 the Federal Circuit was "frequently hearing patent cases en banc." Vacca, *supra*, at 501.

[100] In dissent from a denial of rehearing en banc, Judge Rich commented on the panel's willingness to abandon prior Federal Circuit law due to intervening precedent: "[T]his is mutiny. It is heresy. It is illegal." Atl. Thermoplastics Co. v. Faytex Corp., 974 F.2d 1279, 1281 (Fed. Cir. 1992) (Rich, J., dissenting from denial of rehearing en banc).

[101] Vacca, *supra* note 98, at 503 37 Harv. J. L. & Tech. 501, 503, 509 fig.2 (2024) ("In 2018, the Federal Circuit suddenly, and without explanation, discontinued its en banc practice.").

[102] Full disclosure: I represented the appellant in that case.

[103] LKQ Corp. v. GM Global Tech. Ops., LLC, 102 F.4th 1280, 1287 (Fed. Cir. 2024) (en banc).

[104] EcoFactor, Inc. v. Google LLC, 104 F.4th 243 (Fed. Cir.), *reh'g en banc granted*, *opinion vacated*, 115 F.4th 1380 (Fed. Cir. 2024).

that judges had to faithfully apply Federal Rule of Evidence 702 in *Daubert* proceedings to exclude experts who didn't rely on a reasonable methodology.[105]

The new normalcy at the Federal Circuit isn't limited to en banc cases. There are fewer dissents from denial of en bancs than there used to be.[106] There are fewer dissents in panel opinions. The Federal Circuit used to have the second-highest rate of dissents among the circuits, but it is now lower than average.[107] Indeed, the court is deciding fewer precedential decisions at all even as its patent docket has grown,[108] putting more reliance on nonprecedential decisions and one-line Rule 36 affirmances.[109]

---

[105] *EcoFactor*, __ F.4th at __. Even before oral argument, the Federal Circuit dashed the hopes of those who were looking for more guidance on apportionment, striking half of Google's brief as presenting too broad a question and signaling that it was going to decide only a very narrow and technical issue. *See* EcoFactor, Inc. v. Google LLC, 115 F.4th 1380, 1380 (Fed. Cir. 2024).

[106] Vacca attributes this to the stark difference between older and newer judges; the six newest judges on the court dissent from denial of en banc rehearing at a much reduced rate compared to their more senior colleagues. Vacca, *supra* note 98, at 539-41.

[107] Christopher A. Cotropia, *Determining Uniformity Within the Federal Circuit by Measuring Dissent and En Banc Review*, 43 LOY. L.A. L. REV. 801, 803 (2010) (second highest from 1998-2009); Paul R. Gugliuzza, Jonathan Remy Nash & Jason Rantanen, *Expertise, Ideology, and Dissent*, 74 AM. U. L. REV. 877 (2025) (showing a drop in the dissent rate from a high of 10% in 2012 to 3.6% in 2024); Jason Rantanen, *Federal Circuit Dataset and Stats: January 2023 Update*, PATENTLY-O (Jan. 31, 2023), https://patentlyo.com/patent/2023/01/federal-circuit-dataset.html (showing more recent data). Some of this change can be explained by the absence of Judge Newman, who was responsible for half of all the dissents on the court, Daryl Lim, *I Dissent: The Federal Circuit's Great Dissenter, Her Influence on the Patent Dialogue, and Why It Matters*, 19 VAND. J. ENT. & TECH. L. 873, 878, 901 (2017), and who has not been hearing cases for the past 18 months as the result of a dispute over her fitness to serve on the Court. *See* Blake Brittain, US Appeals Court Questions 97-year-old Judge's Challenge to Her Suspension, REUTERS (Apr. 24, 2025, 5:50 P.M. PDT), https://www.reuters.com/legal/government/us-appeals-court-questions-97-year-old-judges-challenge-her-suspension-2025-04-24/.

[108] Vacca, *supra* note 98, at 522 fig.5.

[109] *Id*. at 523 fig.6; Jason Rantanen, *Federal Circuit Dataset and Stats: January 2023 Update*, PATENTLY-O (Jan. 31, 2023), https://patentlyo.com/patent/2023/01/federal-circuit-dataset.html; Paul R. Gugliuzza & Mark A. Lemley, *Can a Court Change the Law by Saying*

One unscientific measure of the decline in important new legal rules from the Federal Circuit is that my annual "patent year in review" summary of significant developments at the court regularly ran 100 or more pages last decade, but this decade averages only about 50 pages.[110] Fifty pages isn't nothing; the court is still deciding cases that matter. But they aren't fundamentally rewriting the law in the way they have done in past decades.

Even the areas that patent lawyers frequently complain about as sources of uncertainty turn out to be a lot more stable and predictable than those complaints would suggest. Despite complaints about the IPR procedure instituted in 2011 as "death squads, killing property rights"[111] and wildly inflated claims that the PTAB is invalidating the overwhelming majority of patents, in fact the evidence shows that the PTAB is making validity decisions at a consistent, predictable rate – 42% – that is virtually indistinguishable from the invalidation rate in courts and from the rate that prevailed in the 1990s, decades before it was instituted.[112] IPRs are cheaper and quicker

---

Nothing?, 71 VAND. L. REV. 765 (2018). This may be a result of the growth of PTAB appeals in its docket. *See* Vacca, *supra* note 98, at 517-19.

[110] For instance, the 2019 version of my Recent Developments in Patent law case summary ran 95 pages. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3384265. This year's summary is just 48 pages.

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

[112] www.lexmachina.com. One reason for the continued confusion is that "death squad" partisans point only to final written decisions, ignoring the large number of challenges that are denied before reaching a final decision.

than jury trials, and so they are used more often and settle less than court cases, but they aren't "death squads" any more than juries are.

The other thing patent lawyers consistently complain is unpredictable is the law of patentable subject matter since *Alice*.[113] It is true that the two-part *Alice* test doesn't offer particularly clear guidance for distinguishing unpatentable abstract ideas from patentable inventions. Nonetheless, the more than 1000 court decisions applying *Alice* in the last decade[114] have settled into, if not a bright-line rule, a predictable standard under which (1) very few patents are invalidated outside the information technology (IT) sphere[115] and (2) IT patents that seem to involve real technology survive a § 101 challenge, while those that simply claim the idea itself in functional terms without a new technological implementation are likely to fail. The rubric isn't foolproof, and there are outliers, but it turns out lawyers are pretty accurate at predicting which claims will survive an *Alice* challenge and which ones will fail. Two empirical studies confirm this, showing that even taking a short look of no more than a minute, patent lawyers

---

[113] *See generally* Matthew G. Sipe, *Patent Law 101: I Know It When I See It*, 37 HARV. J.L. & TECH. 447 (2024) (showing that rulings on patentable subject matter are judge-specific); Charles Duan, *Examining Patent Eligibility*, 97 ST. JOHN'S L. REV. 47, 47 & n.3 (2023) (citing but not agreeing with those complaints).

[114] Mark A. Lemley & Samantha Zyontz, *Does* Alice *Target Patent Trolls?*, 18 J. EMPIRICAL L. STUD. 47, 47-48 (2021).

[115] *Id*. at 67 fig.5 (showing that 90% of all decisions involve IT patents); *id.* at 67 (finding that the rate of post-*Alice* invalidation was 60% for IT patents, versus less than 45% for life sciences patents).

can guess the likely outcome of § 101 challenges.[116] District judges also seem pretty good at it; the affirmance rate in § 101 cases is 85.3%,[117] which compares favorably with the overall affirmance rate for patent cases at the Federal Circuit.[118]

This is the point in a law review article in which the author, having identified some significant issue with current law, is supposed to propose reform. This is not such an article. I personally think that equilibrium is a pretty fair compromise of competing interests, though not a perfect one.[119] Others disagree, in both directions.[120] But whether you like the current rules or not, my point is descriptive – the system is settling into an

---

116 Nikola L. Datzov & Jason Rantanen, *Predictable Unpredictability: The Suprising Administrability of Patent Subject Matter Eligibility*, 110 IOWA L. REV. 668, 691-92 (2025); Jason D. Reinecke, *Is the Supreme Court's Patentable Subject Matter Test Overly Ambiguous? An Empirical Test*, 2019 UTAH L. REV. 581, 603-05; Matthew Sipe, *Patent Law 101: The View from the Bench*, 88 GEO. WASH. L. REV. ARGUENDO 21, 27–30 (2020). Even Sipe, who documents some judge-specific variation in outcomes, calls his paper "I know it when I see it," suggesting that the problem is not lack of predictability but the lack of a clear rule rather than a standard. Sipe, *supra* note 113. Charles Duan notes that *Alice* itself wasn't a particularly notable departure from prior cases, but rather the culmination of several years of patentable subject matter decisions. Duan, *supra* note 113, at 48-49.

117 Datzov & Rantanen, *supra* note 116, at 716-717.

118 Jason Rantanen et al., *Who Appeals (And Wins) Patent Infringement Cases*, 60 HOUS. L. REV. 289, 317 (2022) (finding a 63% affirmance rate when accused infringers appeal, and a 74% affirmance rate when patent owners appeal).

119 Among other things, I disagree with some of the substantive decisions on the merits, such as *Amgen*. *See* Karshtedt, Lemley & Seymore, *supra* note 66, at 30; Mark A. Lemley & Jacob S. Sherkow, *The Antibody Patent Paradox*, 132 YALE L.J. 994, 1031-32 (2023).

120 Mark A. Lemley, *The Surprising Resilience of the Patent System*, 95 TEX. L. REV. 1, 12 (2016) ("A growing number of commentators worried that the effect of patent reforms designed to curb abuses by patent trolls would be to weaken the patent system as a whole, and with it, American competitiveness."); Anthony Ha, *Jack Dorsey and Elon Musk Would Like to 'delete all IP law'*, TECHCRUNCH (Apr. 13, 2025, 8:12 A.M. PDT), https://techcrunch.com/2025/04/13/jack-dorsey-and-elon-musk-would-like-to-delete-all-ip-law/.

equilibrium. That means that going forward we are unlikely to see the sorts of substantive upheaval that has characterized the past several decades.

In prior work a decade ago, I showed that even in the midst of significant substantive and procedural turmoil, many of the basic dynamics of the patent system proceeded apace, with consistent growth in the number of patent applications, the number of issued patents, and the number of lawsuits, and a consistent patentee win rate across periods of significant substantive change.[121] I suggested that the patent system might be resilient to changes in the underlying law and that patents (and patent litigation) may be valued for reasons other than the statutory purpose of excluding competitors in order to encourage innovation.[122] That resilience, which was surprising given the upheavals I have discussed, will only strengthen as patent law settles into its era of normalcy.

The resilience of the patent system doesn't mean the outcome of cases is irrelevant; we should want people with meritorious cases to win and people with weak ones to lose. The same is true of legal doctrines. If too many people are engaged in the business of buying and asserting weak patents against entire industries, it makes sense to change the law to discourage trolling. Similarly, if too many defendants are alleging inequitable conduct, it makes sense to change the law to make opportunistic assertions of misconduct harder. Sorting out the substantive doctrines and the process by which

---

121 Lemley, *supra* note 120, at 2.

122 *Id*. at 52-54.

they are applied has been the project of the last forty years. But those higher-level changes are unlikely to be the dominant story of the near future. Instead, patent law has entered its era of normalcy, resolving disputes on the individual merits. That doesn't mean there won't be new technologies to challenge patent law, as artificial intelligence is doing right now.[123] But those changes aren't likely to be nearly as significant as the ones we have been experiencing. Patent law has entered a period of normalcy.[124] I think that is something we should value even if we don't agree with all of the ways the law has settled. Businesses often talk about the importance of settled expectations: "Just tell us what the rules are," they might say, "so we can plan around them." There haven't been many settled rules in patent law. Now, for the first time in recent memory, there are.

---

[123] Thaler v. Vidal, 43 F.4th 1207, 1210 (Fed. Cir. 2022) (holding that an "inventor" must be a natural person). The PTO has issued a series of guidelines concerning patentability and AI. *See 2024 Guidance Update on Patent Subject Matter Eligibility, Including on Artificial Intelligence*, 89 Fed. Reg. 58128 (2024); Inventorship Guidance for AI-Assisted Inventions, 89 Fed. Reg. 10043 (2024). The first appellate case applying patent doctrines to machine learning saw no need to go beyond settled doctrines in other areas to resolve the case. UnpatentableRecentive Analytics, Inc. v. Fox Corp., 2025 WL 1142021 (Fed. Cir. Apr. 18, 2025) (holding a machine learning patent not to be patentable subject matter where the patent claimed only applications of existing technology rather than a new machine learning technology). For a review of scholarship covering the intersection of AI and patent law, see Gaétan de Rassenfosse, Adam B. Jaffe & Melissa Wasserman, *AI-Generated Inventors: Implications for the Patent System*, 96 S. CAL. L. REV. 1453 (2024).

[124] *Cf.* Robert P. Merges, *Patent Markets and Innovation in the Era of Big Platform Companies*, 35 Berkeley Tech. L.J. 53 (2020) ("[T]he era of easy and extortionate patent litigation, traditionally associated with the secondary patent market, is coming to a close" because of "recent patent system reforms.").

It may seem crazy to talk about normalcy in 2025, when literally nothing about our country is normal. Our constitutional democracy is collapsing around us, replaced by an authoritarian dictator who defies the rule of law and governs by whim and tweet. Surely a change so momentous is going to rock patent law too? That is possible. Prediction is a hazardous endeavor even in normal times, and times are certainly not normal. Trump has upended lots of norms that made our legal and political system work; he certainly wouldn't balk at upending the norms of patent law too if he thought it would benefit him somehow. But at least at this writing, there is little reason to think that there is any substantive Trump policy around patent law. A more likely threat to normalcy may come from the vagaries of who gets put in positions of power. Patent trolls (and patent litigators) don't benefit from the new normal, even if everyone else does, and they have been agitating to upend it for several years now, proposing bills to abolish section 101, render IPRs toothless, and overrule *eBay*, among other things.[125] Those bills have had bipartisan support, but also bipartisan opposition, in past Congresses. There is no obvious connection between ideology and support for stronger or weaker patent rights,[126] and so no reason to think those changes are any more likely

---

[125] RESTORE Patent Rights Act of 2024, S. 4840, 118th Cong. (2024) (proposing a "rebuttable presumption" that injunctive relief is warranted, contra *eBay*); Patent Eligibility Restoration Act of 2023, S. 2140, 118th Cong. (2023) (amending § 101 to specify particular ineligible subject matter); Promoting and Respecting Economically Vital American Innovation Leadership Act, S. 2220, 118th Cong. (2023) (amending inter partes review to require standing, impose a higher burden of proof, and limit duplicative arguments and attacks).

[126] *See, e.g.*, Jason Reinecke, *Decisionmaking in Patent Cases at the Federal Circuit*, 81 WASH. & LEE L. REV. 169, 187-97 (2024); John R. Allison & Mark A. Lemley, *How Federal Circuit Judges Vote in Patent Validity Cases*, 29 FLA. ST. U. L. REV. 745 (2000).

to happen under Trump than they were under Biden (or the first Trump term). And advisors like Elon Musk have attitudes that push in the opposite direction.[127]

A more likely risk to the new equilibrium is not Trump as policymaker but Trump as chaos agent. He might render the PTAB ineffective just by randomly firing people,[128] or make it dramatically harder to review patents by shuttering regional offices or demanding that all patent examiners "return" to an office where 90% have never worked, leading to mass resignations.[129] His seeming determination to destroy the U.S. economy with tariffs, hamstring universities, and end government funding for scientific research may fundamentally change whether innovation happens (and whether it happens in the United States or elsewhere) and so reduce the rate of patented inventions. But those external changes will happen, if at all, against the backdrop of a

---

[127] When Jack Dorsey, founder of Twitter, tweeted "delete all IP law," Musk replied: "I agree." Elon Msuk (@elonmusk), X.COM (Apr. 11, 2025, 4:40 PM), https://x.com/elonmusk/status/1910840422789763511. And, in 2014, Musk announced that Tesla would "open source" its patents and committed to not "initiate patent lawsuits against anyone" using Tesla technology "in good faith." Brian Solomon, *Tesla Goes Open Source: Elon Musk Releases Patents to 'Good Faith' Use*, FORBES (June 12, 2014, 1:21 PM EDT), https://www.forbes.com/sites/briansolomon/2014/06/12/tesla-goes-open-source-elon-musk-releases-patents-to-good-faith-use/.

[128] Trump's hiring freeze at the PTO and his "return"-to-office policy for judges who have always worked remotely have reduced the number of judges on the PTAB. https://www.bracewell.com/resources/ptab-workforce-bleed-could-trigger-more-litigation/. The interim director has made it harder to institute IPRs on dubious grounds, arguably because with fewer judges the PTAB can't handle the workload of actually evaluating meritorious cases. *See* iRhythm Techs., Inc. v. Welch Allyn, Inc., IPR 2025-00363 (Director June 6, 2025).

[129] At this writing, Trump's return-to-office policy applies to non-examining PTO staff, including supervisory patent examiners and PTAB judges, but does not apply to examiners, who negotiated for remote work in their union agreement. https://patentlyo.com/patent/2025/02/examiners-protected-agreement.html. But that may change when the agreement is renegotiated.

patent system that is likely to look next year pretty much like it did last year, something we haven't been able to say for a very long time.