

Patent Law 101: The View from the Bench

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INTRODUCTION

On April 17th, 2019, Senators Tillis (R-NC) and Coons (D-DE), along with Representatives Collins (R-GA), Johnson (D-GA), and Stivers (R-OH), released a draft of proposed reforms to § 101 of the patent statute—the provision governing subject-matter eligibility—citing, among other reasons, the complexities and “uncertainties in . . . this area of patent law jurisprudence.”¹ A revised draft was released on May 22nd, repeating the same critique of the status quo: “We believe this draft framework represents a true balance that will restore integrity, predictability, and stability to our nation’s patent system”² Since then, the Senate Judiciary Committee’s Subcommittee on Intellectual Property has held hearings and solicited testimony from dozens of witnesses regarding § 101, including “representatives from industry, academia, bar associations, and trade groups” alike—many of whom made similar arguments about the need for greater clarity and certainty.³ But what do members of the *judiciary* think,

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¹ Press Release, Chris Coons, *Sens. Coons and Tillis and Reps. Collins, Johnson, and Stivers Release Section 101 Patent Reform Framework* (Apr. 17, 2019), <https://www.coons.senate.gov/newsroom/press-releases/sens-coons-and-tillis-and-reps-collins-johnson-and-stivers-release-section-101-patent-reform-framework> [<https://perma.cc/PZR4-6ZFY>]; see generally 35 U.S.C. § 101 (2018).

² Press Release, Office of Sen. Thom Tillis, *Sens. Tillis and Coons and Reps. Collins, Johnson, and Stivers Release Draft Bill Text to Reform Section 101 of the Patent Act* (May 22, 2019), <https://www.tillis.senate.gov/2019/5/sens-tillis-and-coons-and-reps-collins-johnson-and-stivers-release-draft-bill-text-to-reform-section-101-of-the-patent-act> [<https://perma.cc/7ZQ7-7BS4>]; see Sen. Tillis et al., *Draft Bill for Section 101 Reform*, <https://www.tillis.senate.gov/services/files/E8ED2188-DC15-4876-8F51-A03CF4A63E26> [<https://perma.cc/J3X9-VX2S>].

³ Kevin Hickey, CONG. RESEARCH SERV., R45918, PATENT-ELIGIBLE SUBJECT MATTER REFORM IN THE 116TH CONGRESS 34 (2019), <https://fas.org/sgp/crs/misc/R45918.pdf> [<https://perma.cc/X5RV-LSFF>]; see Bruce M. Wexler et al., *Senate Hearing on “The State of Patent Eligibility in America”: Analysis of Viewpoints on Looming Section 101 Change*, PAUL HASTINGS, June 25, 2019, <https://www.paulhastings.com/publications-items/details/?id=c58c536d-2334-6428-811c-ff00004cbded> [<https://perma.cc/XFV2-BJEV>] (“In particular, many witnesses stressed how the lack of certainty in current patent eligibility law has impacted investment in research and innovation.”).

particularly the district court judges that are actually responsible for adjudicating § 101 disputes? This Essay presents unique data, based on a survey of district court judges directly in cooperation with the Federal Judicial Center, to shed light on that question. After a brief discussion of § 101's role and critics, the survey's design and results are presented, along with the nuanced takeaways for reform-minded policymakers to consider if the legislative process continues to move forward.

I. SECTION 101

Section 101 governs what kind of subject matter is patentable—on its face, seemingly anything: “Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent”⁴ Indeed, as the Supreme Court has recognized, “Congress intended statutory subject matter to ‘include anything under the sun that is made by man.’”⁵ Over time, a series of judicially created carveouts and tests have come to cabin this textual breadth, and now offer the central doctrine of subject-matter eligibility: “Laws of nature, natural phenomena, and abstract ideas” cannot receive patent protection.⁶ In some cases, determining § 101 eligibility is quite easy. Einstein, for example, “could not patent his celebrated law that $E=mc^2$ [,] nor could Newton have patented the law of gravity,” because such formulae are plainly laws of nature.⁷ But things quickly become complex—dizzily so. Lab-isolated BRCA (breast cancer) genes are natural phenomena ineligible for patenting;⁸ exon-only “complementary DNA” is eligible.⁹ A mathematically defined process for hedging against the risk of price fluctuations in commodities markets is an “abstract idea” ineligible for patenting;¹⁰ a logic model for organizing and improving searchability of a “self-referential” database is eligible.¹¹

⁴ 35 U.S.C. § 101.

⁵ *Diamond v. Chakrabarty*, 447 U.S. 303, 309 (1980) (quoting S. REP. NO. 82-1979 (1952); H.R. REP. NO. 82-1923 (1952), *reprinted in* 1952 U.S.C.C.A.N. 2394, 2399).

⁶ *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 573 U.S. 208, 216 (2014) (quoting *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 2107, 2116 (2013)); *see also* *Bilski v. Kappos*, 561 U.S. 593, 601 (2010) (quoting *Chakrabarty*, 447 U.S. at 309) (“The Court’s precedents provide three specific exceptions to § 101’s broad patent-eligibility principles: ‘laws of nature, physical phenomena, and abstract ideas.’”).

⁷ *Chakrabarty*, 447 U.S. at 309 (citing *Funk Bros. Seed Co. v. Kala Inoculant Co.*, 333 U.S. 127, 130 (1948)).

⁸ *See Myriad*, 569 U.S. at 580.

⁹ *Id.* at 580, 595–96 (“[T]he lab technician unquestionably creates something new when [complementary DNA] is made.”).

¹⁰ *Bilski*, 561 U.S. at 612.

¹¹ *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1330 (Fed. Cir. 2016).

*Alice Corp. v. CLS Bank*¹² offers the Supreme Court's most recent discussion of § 101—and further complexity. Specifically, the Court set forth a challenging two-step framework for adjudicating subject-matter eligibility: First, “determine whether the [patent] claims at issue are directed to one of those patent-ineligible concepts,”¹³ such as an abstract idea; if so, then additionally examine “the elements of each claim both individually and ‘as an ordered combination’ to determine whether [there are] additional elements [that nevertheless] ‘transform the nature of the claim’ into a patent-eligible application.”¹⁴

This test has proved less than popular. In the immediate aftermath of *Alice*, academics stated that “there is now less clarity on the basic question of patent eligibility than at almost any other time in American patent law.”¹⁵ Even now, after *Alice* has been the governing doctrine for several years, the patent community still appears to struggle greatly with determining precisely what is patent eligible. Administrative Patent Judge Hung Bui described the task in Sisyphean terms: each new legal construct “fail[s] and fail[s] again, year after year.”¹⁶ “Since *Alice*, . . . the Federal Circuit, the district courts, and the United States Patent & Trademark Office (USPTO) have all struggled to implement the Supreme Court's *Alice* two-step framework in a predictable and consistent manner.”¹⁷ The former USPTO Director, David J. Kappos, took an even more aggressive tone, calling for the flat elimination of § 101, and stating that the test in *Alice* created “[p]roblematic confusion and unpredictability”¹⁸ In July 2017, the USPTO published a report on the views and recommendations from the public regarding patent eligible subject matter.¹⁹ Overall, commentators felt that the Supreme Court had

¹² 537 U.S. 208 (2014).

¹³ *Id.* at 217 (citing *Mayo Collaborative Services v. Prometheus*, 566 U.S. 66, 76–78 (2012)).

¹⁴ *Id.* (quoting *Mayo*, 566 U.S. at 79, 78).

¹⁵ Jeffrey A. Lefstin, *The Three Faces of Prometheus: A Post-Alice Jurisprudence of Abstractions*, 16 N.C. J.L. & TECH. 647, 649 (2015); see also J. Jonas Anderson, *Applying Patent-Eligible Subject Matter Restrictions*, 17 VAND. J. ENT. & TECH. L. 267, 269 (2015) (“The Supreme Court's interest in, and difficulty with, promulgating a consistent standard for determining which inventions are patent eligible has not gone unnoticed in the academy.”).

¹⁶ Hung H. Bui, *A Common Sense Approach to Implement the Supreme Court's Alice Two-Step Framework to Provide “Certainty” and “Predictability”*, 100 J. PAT. & TRADEMARK OFF. SOC'Y 165, 165 (2018).

¹⁷ *Id.* at 165–66.

¹⁸ David Kappos, *The State of the Patent System: A Look At the Numbers*, LAW360 (Nov. 27, 2017, 10:02 AM), <https://www.law360.com/articles/987044/the-state-of-the-patent-system-a-look-at-the-numbers> [<https://perma.cc/AD57-U63N>].

¹⁹ U.S. PATENT & TRADEMARK OFFICE, USPTO PATENT ELIGIBLE SUBJECT MATTER: REPORT ON VIEWS AND RECOMMENDATIONS FROM THE PUBLIC (2017),

“failed to [provide] objective, predictable criteria . . . to determine whether a claim is drawn to eligible or ineligible subject matter.”²⁰ The *Alice* test in particular was described variously as a “nightmare,”²¹ “unworkable,”²² “fail[ing] to define crucial terms,”²³ and creating “[in]sufficient certainty to serve as a legal standard for anything, let alone the important determination of whether an invention is patent eligible.”²⁴

Article III judges are typically more reticent on such matters, but those who have directly spoken on the issue are similarly critical. Most recently, Judge Lourie from the Court of Appeals for the Federal Circuit pled in concurrence: “I believe the law needs clarification by higher authority, perhaps by Congress, to work its way out of what so many in the innovation field consider are § 101 problems.”²⁵ Judge Lourie was writing in the context of an appeal from the Northern District of Illinois,²⁶ sensitive to the fact that district courts in particular do a considerable amount of work under § 101 as a defense against infringement and in declaratory judgment actions.²⁷ At the USPTO, by contrast, § 101 is not available as grounds for invalidity in the most popular post-grant proceedings.²⁸ The perspective of district court judges is, in other words, of crucial importance—and yet, generally unknown beyond individual anecdotes. The survey presented herein seeks to fill that gap in a more comprehensive fashion.

https://www.uspto.gov/sites/default/files/documents/101-Report_FINAL.pdf
[<https://perma.cc/T7ME-RCJZ>].

²⁰ *Id.* at 29–30.

²¹ *Id.* at 30 (quoting Robert A. Armitage, Response to the October 17, 2016 Federal Register Notice on Patent Subject Matter Eligibility: Exploring the Legal Contours of Subject Matter Eligibility (Dec. 5, 2016), <https://www.uspto.gov/sites/default/files/documents/Armitage%20Response%20to%20USPTO%20Federal%20Register%20Notice%20on%20Patent%20Eligibility%20%20%20.pdf> [<https://perma.cc/P64F-WAHU>]).

²² *Id.* (quoting Bruce D. Sunstein, Written Comments on Legislation Concerning Patent Eligibility (Jan. 12, 2017), <https://www.uspto.gov/sites/default/files/documents/RT2%20Comments%20Bruce%20Sunstein.pdf> [<https://perma.cc/ZM65-HCVU>]).

²³ *Id.*

²⁴ *Id.* at 30 (quoting R&D Companies, Response to Request for Comments Related to Exploring the Legal Contours of Patent Subject Matter Eligibility (Jan. 18, 2017), <https://www.uspto.gov/sites/default/files/documents/RT2%20Comments%20InterDigital%20Inc.pdf> [<https://perma.cc/4E9L-3DKF>]).

²⁵ *Berkheimer v. HP Inc.*, 890 F.3d 1369, 1374 (Fed. Cir. 2018) (Lourie, J., concurring).

²⁶ *Id.* at 1369.

²⁷ See Matthew G. Sipe, *Experts, Generalists, Laypeople—and the Federal Circuit*, 32 HARV. J.L. & TECH. 575, 619–20 (2019); Brandon S. Bludau et al., *Section 101 Metrics: Post-Alice District Court Rulings on Section 101 Motions*, IP LITIGATOR, Sept.–Oct. 2015, at 6.

²⁸ See 35 U.S.C. § 311 (2018) (“A petitioner in an inter partes review may request to cancel as unpatentable 1 or more claims of a patent only on a ground that could be raised under section 102 or 103 . . .”).

II. METHOD

As a first step, data from LexisNexis's Lex Machina provided a list of all district court judges that had at least 15 patent cases on their docket over a three-year period.²⁹ After removing deceased and retired individuals from the list, the final list included 214 judges across the country. With assistance and coordination from the Federal Judicial Center, a survey was circulated to all 214 of those judges, and 105 responses were received—a robust yield rate of approximately one-half. In relevant part, the following six questions appeared on the survey:

1. Approximately how many cases involving patent validity have you decided over the past three calendar years?

(Fewer than 20 cases / 21—60 / 61—100 / 101—200 / More than 200 cases)

2. On average, how difficult are your cases involving patent validity to adjudicate overall? Please click the button that corresponds with the average degree of case difficulty.

(Very Easy = 1 / 2 / 3 / 4 / 5 / 6 / 7 = Very Difficult)

3. Which factors contribute to that difficulty? Please check all that apply.

Length of Litigation

Extent of Discovery

Complexity of Legal Issues

Complexity of Underlying Technological Subject Matter

Patent Quality

Lawyer/Litigant Behavior

Other, please specify:

²⁹ LEX MACHINA, <https://lexmachina.com/> [<https://perma.cc/S5FQ-S22N>] (searching for case type “patent” and cases filed between Jan. 1, 2015 to Jan. 1, 2018). The survey itself was circulated in the summer of 2018.

4. Below are five patent validity issues. In your experience, how difficult are these particular issues to decide in the cases before you? Please click the button that corresponds with the average degree of decision-making difficulty for that issue. You may also select “No experience” on an issue, if applicable.

Subject-matter eligibility

Anticipation

Obviousness

Definiteness

Written Description

Participants indicated difficulty of each issue on the following scale:

(Very Easy = 1 / 2 / 3 / 4 / 5 / 6 / 7 = Very Difficult)

[No experience]

5. Overall, for those same five patent validity issues, where do you feel that the law is more or less settled and clear?

Participants indicated clarity of each issue on the following scale:

(Entirely unclear = 1 / 2 / 3 / 4 / 5 / 6 / 7 = Perfectly clear)

[No experience]

6. Below are five broad areas of technological subject matter.³⁰ In your experience, how difficult are patent validity issues to decide in cases involving that particular subject matter?

Chemical

Computers & Communication

Drugs & Medical

Electrical & Electronics

Mechanical

Participants indicated difficulty of subject matter on the following scale:

(Very Easy = 1 / 2 / 3 / 4 / 5 / 6 / 7 = Very Difficult)

[No experience]

³⁰ The survey used the same super-category system for patent technologies as professors Bronwyn Hall, Adam Jaffe, and Manuel Trajtenberg in their scholarship for the National Bureau of Economic Research. See Bronwyn H. Hall et al., *The NBER Patent Citations Data File: Lessons, Insights, and Methodological Tools* 13 (Nat'l Bureau of Econ.

III. RESULTS

Not all judges responded to all questions and, in multiple instances, judges selected the “No experience” option. Even after removing empty or unusable responses, however, most questions still yielded a sample size between 70 and 100, thus reflecting the combined views of approximately half of all judges in the country with non-negligible patent experience.

The responses to the demographic questions, moreover, suggest that the data is fairly representative of the set of district court judges with at least some minimal exposure to patent cases. Due to a combination of the Patent Pilot Program,³¹ the geography of technology corridors, and forum shopping, patent litigation is highly concentrated.³² That is, many judges have low to middle patent exposure, but a small handful of judges see a tremendous number of cases.³³ So too with the subset of judges that responded to the survey:

TABLE 1. PATENT EXPERIENCE

Number of Patent Cases	Frequency	Percentage of Total
Fewer than 20	73	75.3%
21-60	19	19.6%
61-100	3	3.1%
101-200	1	1.0%
More than 200	1	1.0%

Research, Working Paper No. 8498, 2001), <http://www.nber.org/papers/w8498> [<https://perma.cc/JHU6-W8RX>]. Their super-category system appears to be in particularly common use, and so was chosen to maximize comparability with other studies. *See, e.g.*, Alberto Galasso & Mark Schankerman, *Patent and Cumulative Innovation: Causal Evidence from the Courts*, 130 Q.J. ECON. 317, 330 (2014); Shawn P. Miller, *Where’s the Innovation: An Analysis of the Quantity and Quality of Anticipated and Obvious Patents*, 18 VA. J.L. & TECH. 1, 23 n.59 (2013) (using the Hall, Jaffe, and Trajtenberg system, among others); Gregory Nemet & Evan Johnson, *Do Important Inventions Benefit from Knowledge Originating in Other Technological Domains?*, 41 RES. POL’Y 190, 194 (2012); Saurabh Vishnubhakat et al., *Strategic Decision Making in Dual PTAB and District Court Proceedings*, 31 BERKELEY TECH. L.J. 45, 66 (2016).

³¹ Pub. L. No. 111-349, § 1(b)(2)(A), 124 Stat. 3674, 3674–75 (2011).

³² *See* J. Jonas Anderson, *Court Competition for Patent Cases*, 163 U. PA. L. REV. 631, 632 (2015); Sipe, *supra* note 27, at 585–91.

³³ Sipe, *supra* note 27, at 590 n.91.

With this in mind, district court judges appear to find patent cases especially challenging regardless of their experience level:

TABLE 2. AVERAGE PATENT CASE DIFFICULTY BY EXPERIENCE LEVEL

Number of Patent Cases	Avg. Difficulty Rating (Scale of 1–7)	Sample Size
Fewer than 20	5.48	73
21-60	5.52	19
61-100	6.33	3
101-200	6.00	1
More than 200	7.00	1
Overall	5.54	97

Far and away, the principal sources of that difficulty seem to be the actual complexity of the underlying legal issues and technological subject matter, rather than procedural or practical factors:

TABLE 3. FACTORS CONTRIBUTING TO PATENT CASE DIFFICULTY

Factor	Frequency	Percentage	Sample Size
Length of Litigation	30	30.6%	98
Extent of Discovery	32	32.6%	98
Complexity of Legal Issues	68	69.4%	98
Complexity of Underlying Technological Subject Matter	88	89.8%	98
Patent Quality	36	36.7%	98
Lawyer / Litigant Behavior	33	33.7%	98

Delving deeper into the legal issues, judges do appear to consider subject-matter eligibility to be the most difficult issue, on average:

TABLE 4. OVERALL DIFFICULTY RATING BY PATENT VALIDITY ISSUE

Patent Validity Issue	Avg. Difficulty Rating (1–7)	Std. Error	Sample Size
Subject-Matter Eligibility	4.92	0.18	79
Anticipation	4.64	0.16	78
Obviousness	4.85	0.13	84
Definiteness	4.90	0.12	80
Written Description	4.75	0.14	77

Observe, however, that the difference is relatively slight. The most difficult category (subject-matter eligibility) ranks only 0.28 points higher than the easiest category (anticipation) on a seven-point scale.

In evaluating the doctrine directly, however, the pattern is much stronger. Judges unambiguously consider subject-matter eligibility to be the least settled area of law:

TABLE 5. DOCTRINAL CLARITY BY PATENT VALIDITY ISSUE

Patent Validity Issue	Avg. Clarity Rating (1–7)	Std. Error	Sample Size
Subject-Matter Eligibility	3.59	0.17	75
Anticipation	4.66	0.14	73
Obviousness	4.44	0.13	79
Definiteness	4.45	0.14	74
Written Description	4.44	0.14	72

Note in particular the relatively even ratings for all non-§ 101 issues; subject-matter eligibility doctrine is a genuine outlier in the judges' minds.

Turning now to the technological issues, an interesting pattern emerges: Judges rate almost *all* categories of technological subject matter as more challenging to work with than the patent validity issues themselves.

TABLE 6. OVERALL DIFFICULTY RATING BY UNDERLYING TECHNOLOGY

Patent Technology Group	Avg. Difficulty Rating (1–7)	Std. Error	Sample Size
Chemical	5.67	0.16	60
Computers & Communication	5.60	0.15	80
Drugs & Medical	5.43	0.16	74
Electrical & Electronics	5.44	0.14	77
Mechanical	4.46	0.16	81

Indeed, this result appears to track the reported sources of difficulty presented above; across demographics of experience, judges consistently find the underlying technological subject matter more difficult than the actual legal issues.

IV. OBSERVATIONS FOR POLICYMAKERS

A. *Clarity Does Appear to Be Missing from § 101*

Academics, practitioners, and administrators have long found § 101 doctrine to be an opaque mess. Judges may now be added to that list, and their collective opinions ought to be given considerable weight. If the judges—the actual decision makers on the ground for many patents’ eligibility—claim that an area of patent law is especially unsettled and unclear, surely we ignore them at our peril. Likewise, if the core function of patent law is to incentivize research, development, and innovation, the landscape of those incentives must be clear *ex ante* to the relevant stakeholders, from solo inventors to major laboratories. As it stands, the landscape is poorly defined, even *ex post*, and even to the *adjudicators*. At a minimum, then, the status quo under § 101 appears untenable.

B. *Technological Complexity May Be More Salient*

That being said, judges seem to consider technological subject matter to be a greater source of difficulty than the doctrine itself, § 101 included. In a certain sense, this should hardly be surprising. District court judges are, after all, experts in sorting out thorny doctrinal questions—scientific expertise, on

the other hand, is considerably scarcer on the bench.³⁴ And whereas recurring doctrinal questions like § 101 eligibility are bound to generate at least a comfortable *familiarity* over time, judges are not likely to see the same precise technological subject matter repeatedly. One day, a new technique for coating semiconductors; the next, a surgical device for improving spinal fusion. A patent is, after all, supposed to cover something novel.

This is not to suggest that Article III judges are necessarily ill-suited to adjudicate patent disputes. Nor is it to suggest that § 101 reforms are unwarranted. Rather, it is an attempt to emphasize that judges will perhaps *always* find patent law to be an area of extra difficulty and considerable challenge due to the complexities of working with cutting-edge science. Any attempts to tinker with the doctrine—§ 101 or otherwise—ought to take that baseline into account before determining whether changes are truly warranted, and whether those changes will succeed in establishing clarity and predictability. Here, it is particularly telling that the opinions of judges are well in line with those of administrative officials, who do possess technical training. Looking at the full picture, in other words, suggests that clarity is still deeply needed in § 101 doctrine.

C. § 101 Acts as an Early Sorting Mechanism

Finally, it is worth emphasizing § 101's unique structural function in patent litigation: it tends to come first. That is, savvy defendants will raise a validity challenge under § 101 via a motion to dismiss—well before discovery occurs and a factual record is developed, issues of novelty or written description are adjudicated, and matters regarding any infringement itself are broached.³⁵ Subject-matter eligibility—as both a question of pure

³⁴ For example, the Federal Judicial Center indicates that, of 1305 sitting federal judges, only 16% (209) possess a minimum of an undergraduate science degree (B.S., B.S.E., B.S.E.E., B.Sc., A.S., A.A.S.). See *Biographical Directory of Article III Federal Judges, 1789–present*, FED. JUDICIARY CTR., <https://www.fjc.gov/history/judges> [<https://perma.cc/R3EC-P7AG>]; see generally Charlie Stiernberg, Note, *Science, Patent Law, and Epistemic Legitimacy: An Empirical Study of Technically Trained Federal Circuit Judges*, 27 HARV. J.L. & TECH. 279, 299 (2013) (“[T]he lack of technically trained judges is having a measurable impact on the patent system.”); Peter Lee, *Patent Law and the Two Cultures*, 120 YALE L.J. 2, 9–16 (2010).

³⁵ Patent practitioner media tends to discuss the ins and outs of this particular strategy in great detail, including limited empirical data. See, e.g., Brandon S. Bludau et al., *Section 101 Metrics: Post-Alice District Court Rulings on Section 101 Motions*, IP LITIGATOR, Sept.–Oct. 2015, at 9. (examining the first year of post-Alice cases and finding that “[t]he number of decisions on [§ 101] motions is climbing” and displays “significant success” in terms of outcome); Suyoung Jang & Cheryl T. Burgess, *Invalidating Patents Under § 101 in the Early Stages of Litigation Still Possible Post-Berkheimer and Aatrix*, KNOBBE MARTENS (Dec. 3, 2018), <https://www.knobb.com/news/2018/12/invalidating-patents-under-%C2%A7101-early-stages-litigation-still-possible-post-berkheimer#> [<https://perma.cc/99QC-GMMM>].

law³⁶ and one that tends to decide the fate of the entire patent all at once—has thus assumed a sort of gatekeeping function. Patent litigation is, of course, a spectacularly time- and resource-consuming affair on both sides of the bench. It should come as no surprise then that judges on the ground are apt to use § 101 as a “quick way to screen out weak patents,” not unlike the “quick look” doctrine in antitrust.³⁷ Indeed, some critics suggest that § 101 has begun to subsume other doctrinal areas such as anticipation or obviousness as a practical matter, with judges implicitly (or explicitly) relying on arguments and analysis under § 101 that require factual predicate.³⁸

All of this is to say, § 101 doctrine carries an especially heavy burden and receives an especially high degree of scrutiny. Any reform efforts would be wise to bear that in mind. If § 101 retains its structural function as a sorting mechanism, then the demands on it will perhaps remain impossibly high: complete predictability, clarity, and accuracy—but with only a barren record to lend interpretive and technical assistance to the judge. If, on the other hand, § 101 is tightly cabined through reform so as to prevent such a sorting function, observers ought to be wary of other doctrines taking over the role. Discretion behaves hydraulically; if one tool to keep dockets rolling at a reasonable pace is removed, another is nearly guaranteed to take its place.

CONCLUSION

Relying on direct survey data, district court judges may now be fairly counted among the growing chorus of those seeking greater clarity as to what constitutes patentable subject matter. To be sure, the intrinsic complexity of grappling with advanced technologies plays a major role in patent case complexity, irrespective of the doctrinal landscape. And for § 101 in particular, its assumed gatekeeping role likely increases the perceived challenge to a further, somewhat artificial degree. Reform is, in other words, clearly warranted—but when weighing the options at hand, stakeholders should be taking these larger dynamics into consideration as well.

³⁶ See *In re Ferguson*, 558 F.3d 1359, 1363 (Fed. Cir. 2009) (quoting *In re Bilski*, 545 F.3d 943, 951 (Fed. Cir. 2008) (en banc), *aff’d sub nom. Bilski v. Kappos*, 561 U.S. 593 (2010)).

³⁷ PETER S. MENELL, MARK A. LEMLEY, & ROBERT P. MERGES, *INTELLECTUAL PROPERTY IN THE NEW TECHNOLOGICAL AGE*: 2017 301 (2017).

³⁸ The draft reform mentioned at the outset, for example, felt it necessary to specifically highlight that “eligibility is determined . . . without regard to considerations properly addressed by [Section] 102 [novelty], 103 [obviousness], and 112 [written description and definiteness].” Press Release, Chris Coons, *supra* note 1; see also Paxton M. Lewis, Note, *The Conflation of Patent Eligibility and Obviousness: Alice’s Substitution of Section 103*, 2017 UTAH L. REV. ONLAW 13 (2017), 14 (discussing how the *Alice* framework for evaluating § 101 intrudes upon the obviousness analysis under § 103 of the Patent Act).