September 7, 2021

Mr. Drew Hirshfeld
Commissioner for Patents
United States Patent and Trademark Office
600 Dulany Street
Alexandria, VA 22314

Submitted electronically through www.regulations.gov

Re: Comments on Patent Eligibility Jurisprudence Study, Docket Number: PTO-P-2021-0032

AMERICAN CIVIL LIBERTIES UNION

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Dear Mr. Hirshfeld:

The American Civil Liberties Union (ACLU) submits these comments with respect to the request for information (RFI) regarding patent eligibility jurisprudence issued by the Patent Trademark Office (PTO) as detailed in the Federal Register Notice published at 86 FR 36257 (July 9, 2021). The RFI originally was requested by Senators Thom Tillis, Mazie Hirono, Tom Cotton, and Chris Coons who wrote to the PTO requesting a study of the current state of patent-eligibility jurisprudence and its effects on innovation.[1] The study was proposed in furtherance of desired legislative expansion of current patent subject matter eligibility doctrine, which the ACLU strongly opposes. The Senators' request presupposes its desired conclusions by soliciting information as to how a "lack of consistency and clarity in our nation's patent eligibility laws" has "adversely impacted investment and innovation in critical technologies . . . ."[2] Troublingly, the RFI issued by the PTO seems to adopt the same framing as the Senators' request, presupposing that patent-eligibility jurisprudence lacks clarity and consistent application and that this lack of clarity is causing harms.[3] Neither the Senators' letter nor the RFI provides any basis for the allegation that the law is inconsistent or unclear, nor does it mention the harms that people in the United States and the market face when patents on the "the basic tools of scientific and technological work"[4] drive up consumer costs and stymie competition. Any assessment of the current state of subject matter eligibility is incomplete where these vital considerations are absent. This comment provides facts challenging the

[1] Letter from Sens. Thom Tillis, Tom Cotton, Mazie K. Hirono & Christopher A. Coons to Drew Hirshfeld, Comm'r for Patents, USPTO (Mar. 5, 2021) (https://www.tillis.senate.gov/services/files/04D9DCF2-B699-41AC-BE62-9DCA9460EDDA).
[2] *Id*.
[3] Patent Trademark Office, *Patent Eligibility Jurisprudence Study,* PTO-P-2021-0032, 86 Fed. Reg. 36,257 (Jul. 9,2021), https://www.regulations.gov/document/PTO-P-2021-0032-0002.
[4] *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972).

unsupported premise that current patent subject matter eligibility laws are inconsistent and unclear. It also provides evidence that current patent subject matter eligibility laws spur invention and benefit the public interest. Finally, the PTO is not the only federal agency with expertise and equities in the markets under examination and its perspective is limited to intellectual property. The Department of Health and Human Services, Department of Justice, White House Office of Science and Technology Policy, and White House Domestic Policy Council all have jurisdiction and expertise in these sectors that is relevant to understanding the effects of patents. At a minimum, these and other relevant agencies should have a role in advising whether legislation in this arena should be pursued; it would also be advisable to have an entity like the National Academies of Science do a broader study of the relevant issues, as Drs. Harold Varmus, David Baltimore, and dozens of Nobel Laureates and prominent scientists advised.[5]

Patent subject matter eligibility is governed by 35 U.S.C. § 101, which allows patents to be granted on "any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof." Section 101 jurisprudence is based on 150 years of case law distinguishing between specific inventions, which can be patented, and the "building blocks of human ingenuity,"[6] which cannot. In addition to subject matter ineligibility, patents may also be denied on other grounds, including a lack of novelty (35 U.S.C. § 102), obviousness (35 U.S.C. § 103), and inadequate written description (35 U.S.C. § 112). In fact, the vast majority of rejected patent applications are denied on grounds other than a lack of subject matter eligibility.[7]

The information in this comment shows that: (i) Federal Circuit and Patent Trial and Appeals Board (PTAB) affirmance rates indicate that district courts, the PTAB, and patent examiners clearly and consistently apply Supreme Court jurisprudence regarding patent subject matter eligibility; (ii) Federal Circuit judges believe that the law is clear and furthermore, decision makers benefit from the guidance provided by the more than 77 cases heard since *Alice*; and (iii) expanding subject matter eligibility would raise constitutional concerns.

Affirmance Rates of Patent Subject Matter Eligibility Decisions Confirm that Current Jurisprudence is Clear.

The high affirmance rate of subject matter eligibility decisions made by the district courts and the PTAB demonstrates consensus among decision makers on how to interpret and apply the current law. Objective measurements of the Federal Circuit's affirmance rates of patent subject matter eligibility decisions suggest that courts understand and implement current subject matter eligibility doctrine capably. While the rate of patent invalidation on the grounds of subject matter eligibility increased after *Alice*, the Federal Circuit affirmed 89% of these findings of ineligibility

[5] Letter from David Baltimore and Harold Varmus to Sen. Chris Coons, Sen. Thom Tillis, Rep. Doug Collins, Rep. Henry Johnson, and Rep. Steve Stivers (Jun. 13, 2019), https://www.aclu.org/baltimore-varmus-coalition-letter-biomedical-scientists-patent-eligibility-concerns.

[6] *Alice Corp. Pty. Ltd. v. CLS Bank Int'l.*, 573 U.S. 208, 216 (2014).

[7] Ryan Davis, *USPTO Chief Questions Call to Review Patent Eligibility Last*, LAW360 (April 12, 2021), https://www.law360.com/articles/1374485?e_id=d0edd081-f06c-4de1-b982-49e52e3bd159&utm_source=engagement-alerts&utm_medium=email&utm_campaign=prospect_retry_articles. Patent subject matter eligibility rejections account for only 6.5% of all rejections.

in the five years following *Alice*.[8] From 2013 through 2020, decisions applying § 101 had an affirmance rate of 65% when appealed to the Federal Circuit and decided in precedential opinions, higher than the circuit's overall affirmance rate of 56%.[9] The affirmance rate for § 101 decisions was higher than the overall affirmance rate in most years in this period regardless of whether decisions were appealed from a district court or an agency.[10]

Comparing the affirmance rates of § 101 decisions with those made on other grounds shows that districts courts and agencies appear to have an understanding of the proper application of § 101 that is more consistent with the Federal Circuit than with respect to other patent law grounds. From 2014 through 2020, district court and agency decisions addressing § 101 were affirmed at a higher rate than decisions addressing §§ 102, 103 or 112.[11] Additionally, the Federal Circuit was asked to review nearly three times as many decisions relating to § 103 as decisions relating to § 101.[12] Section 101 cases constituted only 15% of cases heard on the §§ 101, 102, 103 and 112 grounds of invalidity and only 4% of all appeals.[13] The relatively high affirmance rate and low number of appealed decisions reflects consistency among the district courts', administrative law judges', and the Federal Circuit's understanding of § 101.

When the analysis is expanded to include non-precedential affirmances under Federal Circuit Rule 36, the affirmance rate rises further. In 2018, Paul Gugliuzza and Mark Lemley conducted an analysis of all Federal Circuit patent-eligibility decisions since *Alice*.[14] Their dataset included both precedential opinions and non-precedential Rule 36 affirmances. The authors concluded that the Federal Circuit has affirmed patent invalidity decisions in 90% of the cases that came before it. However, if one looked only at precedential opinions, the picture appeared much murkier. That was because, though the Federal Circuit had issued fifty Rule 36 affirmances of patent invalidity, it had issued none in cases where it held in favor of the patentee. It wrote an opinion in each of those cases. These data show that perception of patent eligibility jurisprudence may be skewed by which cases the Federal Circuit chooses for written opinions. The reality is that the court often agrees with the decisions of the district courts and simply affirms those decisions without opinion.

While many patents are granted each year,[15] patent examiners do reject some claims in patent applications. Of those rejections, only 6.5 % are due to concerns over subject matter

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[8] Robert Sachs, Alice*: Benevolent Despot or Tyrant? Analyzing Five Years of Case Law Since* Alice v. CLS Bank*: Part I*, IPWATCHDOG (Aug. 29, 2019), https://www.ipwatchdog.com/2019/08/29/alice-benevolent-despot-or-tyrant-analyzing-five-years-of-case-law-since-alice-v-cls-bank-part-i/id=112722/.

[9] *Infra* Table 1.

[10] *Infra* Table 2.

[11] *Infra* Table 2.

[12] According to the Gibson Dunn Federal Circuit Years in Review, *infra* note 49, the Federal Circuit heard appeals on 228 § 103 cases between 2014 and 2020, as compared to 80 § 101 cases.

[13] According to the Gibson Dunn Federal Circuit Years in Review, *infra* note 49, the Federal Circuit heard appeals on 489 cases relating to §§ 101, 102, 103 or 112 and 1437 appeals in total.

[14] Paul Gugliuzza & Mark Lemley, *Can a Court Change the Law By Saying Nothing?*, 71 VANDERBILT L. REV. 765 (2018).

[15] In 2019, for example, the PTO granted over 600,000 utility patents. *See* U.S. Patent Statistics, U.S. Patent and Trademark Office Patent Technology Monitoring Team, https://www.uspto.gov/web/offices/ac/ido/oeip/taf/us_stat.htm (last visited Apr. 24, 2021).

eligibility.[16] The rate of affirmance by the PTAB of patent examiners' decisions under § 101 demonstrates that examiners understand how to apply subject matter eligibility doctrine. In 2018, the PTAB affirmed about 70% of patent examiners' rejections on § 101 grounds, compared to an overall affirmance rate of about 59% for all rejections.[17] In 2020, the PTAB affirmed 82% of § 101 patent application rejections, as compared to about 71% of all appealed rejections.[18] Between 2014 and 2018, rejections based on subject matter eligibility had the highest affirmance rate of all rejection types.[19] This suggests that the PTAB and the patent examiners share a common understanding of subject matter eligibility jurisprudence and that examiners' determinations of subject matter eligibility are predictable.[20]

Statements in Federal Circuit Opinions Pertaining to § 101 Show that Judges Find Subject Matter Eligibility Precedent Clear and Consistent.

The Supreme Court has provided clear guidance regarding patent subject matter eligibility. When resolving § 101 disputes, courts generally apply the two-part test set out in *Alice* and *Mayo v. Prometheus*.[21] First, they "determine whether the claims at issue are directed to a patent-ineligible concept" such as an abstract idea.[22] Second, they "examine the elements of the claim to determine whether it contains an 'inventive concept' sufficient to 'transform' the claimed abstract idea into a patent-eligible application."[23] The Federal Circuit has further clarified this test in at least 84 cases since 2012.[24] For example, the court in *Marco Guldenaar* applied the *Alice*/*Mayo* test to affirm the rejection of patent claims directed to the concept of rules for a dice game, noting that the Supreme Court "has made clear that merely appending conventional steps to an abstract idea is not enough for patent eligibility."[25]

Federal Circuit judges have explicitly acknowledged that the test set forth by the Supreme Court for assessing subject matter eligibility is clear and the Federal Circuit's application of the test to individual cases is consistent. For example, Judge Alan D. Lourie recognized in a concurring opinion accompanying the court's *per curiam* Order in *Athena Diagnostics, Inc. v. Mayo Collaborative Servs.*, "our cases are consistent." [26] He further recognized that in the context of diagnostic methods in particular, the distinction between

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[16] *See* Ryan Davis, *supra* note 7.

[17] Knobbe Martens, *How Unpredictable is the Alice Analysis?*, JDSUPRA (Oct. 18, 2018), https://www.jdsupra.com/legalnews/how-unpredictable-is-the-alice-analysis-64374/.

[18] James R. Love, *Section 101 at the Patent Trials and Appeals Board – A Surprising Result*, OBLON (July 13, 2020), https://www.oblon.com/section-101-at-the-patent-trial-and-appeals-board-a-surprising-result. In 2019, the USPTO published new guidelines on § 101. Patent examiners also benefited from an additional two years of applying Federal Circuit case law on § 101.

[19] Kilpatrick Townsend & Stockton LLP, *Nearly All Post-Alice Eligibility Rejections are Affirmed in Whole by the PTAB*, LEXOLOGY (May 28, 2018), https://www.lexology.com/library/detail.aspx?g=b5dcb8ae-3478-4e4b-b344-38258b910431.

[20] Knobbe Martens, *supra* note 17.

[21] *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 81 (2012).

[22] *In re: Marco Guldenaar Holding B.V.*, 911 F.3d 1157, 1160 (Fed. Cir. 2018) (citations omitted) (quoting *Alice*, 573 U.S. at 218).

[23] *Id.* (quoting *Alice*, 573 U.S. at 221).

[24] *Infra* Table 1.

[25] *Marco Guldenaar*, 911 F.3d at 1161 (citing Mayo v. Prometheus, 566 U.S. 66 at 81).

[26] *Athena Diagnostics, Inc. v. Mayo Collaborative Servs., LLC*, 927 F.3d 1333, 1336 (Fed. Cir. 2019) (Lourie, J., concurring).

eligible and ineligible subject matter is "a clear line."[27] Despite dissenting in that case, Chief Judge Kimberly A. Moore recognized the certainty surrounding patent subject matter eligibility.[28]

Policy beliefs, not confusion, drive § 101 dicta. Some Federal Circuit judges have expressed distaste for the current state of subject matter eligibility jurisprudence due to industry stakeholders' stated concerns or a judge's personal reluctance to invalidate patents.[29] But these statements reflect judges' policy beliefs, not confusion. Policy preferences have no bearing on the clarity of subject matter eligibility jurisprudence. Meanwhile, other judges have recognized the value of the Supreme Court's clarification of patent subject matter eligibility. For example, Judge Haldane Robert Mayer, whose tenure on the Federal Circuit spans 34 years, asserted that "[b]efore the Supreme Court stepped in to resuscitate section 101, a scourge of meritless infringement suits clogged the courtrooms and exacted a heavy tax on scientific innovation and technological change."[30] Judge Mayer called the § 101 framework "an expeditious tool for weeding out patents clearly lacking any 'inventive concept.'"[31]

Tellingly, those who allege confusion at the Federal Circuit regarding the state of patent subject matter eligibility have failed to convince the Supreme Court that it needs to act. The Supreme Court has consistently declined to review cases pertaining to § 101. In the years since the *Bilski*,[32] *Mayo*, *Alice*, and *Myriad*[33] decisions, the Supreme Court has denied dozens of petitions for a writ of certiorari seeking review of a Federal Circuit decision regarding patent subject matter eligibility. Furthermore, not a single Supreme Court justice has written a dissent to any of the petition denials. The Supreme Court has let stand Federal Circuit decisions refining the contours of patent subject matter eligibility doctrine in accordance with its guidance in *Alice*, *Mayo*, *Myriad*, and *Bilski*.

Expanding Patent Subject Matter Eligibility Raises Constitutional Concerns.

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[27] *Id*.

[28] *Id.* at 1363 (Moore, J., dissenting).

[29] *See, e.g., id.* at 1368-69 (Newman, J., dissenting) ("The major biotech industry organizations advise that our court's application of *Mayo* 'has caused great uncertainty to the industry, and . . . has called into doubt innumerable biotech patents.'") (citation omitted); *id*. at 1358 (Moore, J., dissenting) ("Without patent protection to recoup the enormous R&D cost, investment in diagnostic medicine will decline.); *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 809 F.3d 1282, 1287 (Fed. Cir. 2015) (Dyk, J., concurring) ("[A] too restrictive test for patent eligibility under 35 U.S.C. § 101 with respect to laws of nature . . . may discourage development and disclosure of new diagnostic and therapeutic methods in the life sciences . . . .").

[30] *Marco Guldenaar*, 911 F.3d at 1165 (Mayer, J., concurring); *see also Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 720 (Fed. Cir. 2014) (Mayer, J., concurring) ("The Supreme Court has taken up four subject matter eligibility challenges in as many years, endeavoring to right the ship and return the nation's patent system to its constitutional moorings . . . the PTO has for many years applied an insufficiently rigorous subject matter eligibility standard . . . ."). In other opinions, Judge Mayer has expressed similar views that patent eligibility should serve as a "threshold issue" to be resolved at the first opportunity. *See, e.g.*, *OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1365 (Fed. Cir. 2015) (Mayer, J., concurring); *Ultramercial*, 772 F.3d at 717 (Mayer, J., concurring); *I/P Engine, Inc. v. AOL Inc.*, 576 F. App'x 982, 992 (Fed. Cir. 2014) (Mayer, J., concurring).

[31] *Marco Guldenaar*, 911 F.3d at 1165 (Mayer, J., concurring).

[32] *In re Bilski,* 545 F.3d 943, 1008 (Fed. Cir. 2008), aff'd sub nom. *Bilski v. Kappos,* 561 U.S. 593 (2010).

[33] *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.,* 569 U.S. 576 (2013).

Expanding patent subject matter eligibility risks violating both the First Amendment and the Constitution's Intellectual Property Clause. Such constitutional concerns open an entirely new arena of legal claims, creating rather than resolving confusion as to what is eligible for patent protection.

As Federal Circuit Judge Mayer has recognized, patents risk running afoul of the First Amendment when they "obstruct the essential channels of scientific, economic, and political discourse."[34] Several scholars also have warned of this threat.[35] Expansive eligibility criteria could significantly curtail the free exchange of ideas and "impose broad and unwarranted burdens on speech"[36] and thought in violation of the First Amendment. For example, patents protecting certain business ideas and methods could impermissibly burden the freedom of speech and "free flow of ideas" by restricting how concepts can be discussed in the public domain.[37] Patents covering software could similarly violate the First Amendment by obstructing an entire means of communication, like email, if drafted with overly "vague, functional language."[38]

Expansive eligibility criteria also potentially contravene the Intellectual Property Clause of the Constitution, which requires that patent-granted monopolies "promote the Progress of Science and useful Arts." Overly expansive patent subject matter eligibility may result in monopolies on abstract ideas, laws of nature, and natural phenomena that would impede rather than "promote" the innovation contemplated by the Constitution. Thus far, courts have avoided addressing such constitutional concerns by deciding cases on the basis of § 101.[39] Dramatically expanding the scope of § 101 would necessitate time and resource-intensive litigation to examine what subject matter can be patented constitutionally.

Current Patent Subject Matter Eligibility Law Fosters Invention, Encourages Scientific Collaboration, and Protects Patients and the Public Interest

The existing prohibitions against patenting laws of nature, products of nature, and abstract ideas play a crucial role in fostering technological invention that benefits the public interest. These benefits redound across multiple sectors of the economy including software development, genetic and other medical diagnostic testing, treatment development for medical conditions, including emerging diseases like COVID-19, and any business which uses software to offer a web site to the public.

In the field of genetic testing, current doctrine increased competition in the market for providing testing for the presence of genetic mutations and for providing full genome sequencing. The same day the Supreme Court issued its decision in *Myriad*, invalidating Myriad's patents on the

[34] *Intellectual Ventures I LLC v. Symantec Corp.,* 838 F.3d 1307, 1322 (Fed. Cir. 2016) (Mayer, J., concurring).
[35] *See* Dan L. Burk, *Patenting Speech*, 79 TEX. L. REV. 99 (2000) (software); Tun-Jen Chiang, *Patents and Free Speech*, 107 GEO. L. J. 309 (2019) (means of speech and means of communications); Stephanie A. Diehl, *Treating the Disease: A First Amendment Prescription for the U.S. Patent System*, 33 CARDOZO ARTS & ENT. L.J. 495 (2015) (business method patents).
[36] *In re Bilski*, 545 F.3d at 1008 (Mayer, J., dissenting).
[37] *In re Bilski*, 545 F.3d at 1008 (Mayer, J., dissenting) (stating that patents on "hedging" could exclude the public from discussing means of balancing market risks with respect to a commodity).
[38] *Intellectual Ventures*, 838 F.3d at 1322-23 (Mayer, J., concurring).
[39] *See, e.g., Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576 (2013).

BRCA1 and BRCA2 genes, mutations in which are highly correlated with breast, ovarian, and prostate cancers, five laboratories announced they would provide BRCA testing to patients, significantly reducing cost and providing more comprehensive testing.[40] Testimony offered by Sean George, CEO of Invitae, before the Senate Judiciary Committee confirmed the advances in providing affordable testing for hereditary breast cancer due to the *Myriad* decision.[41] His testimony also noted that those results have been duplicated across multiple hereditary conditions, including Lynch Syndrome, pediatric epilepsy, and numerous other conditions. Since the *Myriad* decision, overall investment in genomics has skyrocketed, increasing from $6.21 billion in 2013 to over $17 billion in 2018.[42] These advances are no accident. They are the result of a robust patent subject matter eligibility doctrine that cleared the way for innovative companies to provide better services to patients at cheaper prices and for scientists to do the collaborative work necessary to develop innovative treatments.

Furthermore, current doctrine aided the development and deployment of testing and treatments for COVID-19. Scientists around the world are contributing information about the thousands of new strains of coronavirus they have sequenced, data that is vital to understanding the virus (including the Delta variant) and developing testing and treatments.[43] While there have certainly been serious problems with sufficient access to testing and vaccines, the issue was not that laboratories lacked patent protection to develop them. Dozens of laboratories have created and are offering diagnostic tests.[44] Numerous companies across the world have developed and are offering effective vaccines. Had it been otherwise, had one company patented the viral genome, the rapidity with which testing, treatment, and multiple vaccines were developed may have been impossible, because the patent-holder would have been incentivized to block others from conducting research on the viral genome to develop competing treatments, tests, or vaccines.[45]

By protecting businesses from frivolous patent claims, current patent subject matter eligibility law fosters competition in other sectors of the economy as well. In its "Saved By Alice" initiative, the Electronic Frontier Foundation has collected numerous stories of creators and small businesses that have thrived as a direct result of the Supreme Court's patent-eligibility jurisprudence.[46] In one of those stories, a U.S. army veteran named Justus Decher was able to maintain his telehealth business, without paying an exorbitant licensing fee to a patent holder claiming to hold a broad patent over methods for monitoring treatment of patients, because *Alice*

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[40] Andrew Pollack, *After Patent Ruling, Availability of Gene Tests Could Broaden*, N.Y. TIMES (Jun. 13, 2013), https://www.nytimes.com/2013/06/14/business/after-dna-patent-ruling-availability-of-genetic-tests-could-broaden.html; *See also The State of Patent Eligibility in America: Part II Before the S. Subcomm. on Intellectual Property*, 116th Cong. (2019) (statement of Kate Ruane, Senior Legislative Counsel, American Civil Liberties Union), https://www.judiciary.senate.gov/imo/media/doc/Ruane%20Testimony.pdf.

[41] *The State of Patent Eligibility in America: Part II Before the S. Subcomm. on Intellectual Property*, 116th Cong. (2019) (statement of Sean George, CEO, Invitae Corp.), https://www.judiciary.senate.gov/imo/media/doc/George%20Testimony.pdf.

[42] *Id*.

[43] Sandra Park, *The Dangers of Expanding What Can be Patented in the Age of COVID-19*, ACLU (Oct. 30, 2020), https://www.aclu.org/news/privacy-technology/the-dangers-of-expanding-what-can-be-patented-in-the-age-of-covid-19/.

[44] *Id*.

[45] Jorge L. Contreras, *COVID-19 as an Example of Why Genomic Sequence Data Should Remain Patent Ineligible*, University of Utah College of Law Research Paper No. 432 (Feb. 15, 2021), https://ssrn.com/abstract=3808319.

[46] *Saved by Alice,* Electronic Frontier Foundation, https://www.eff.org/alice.

made clear that the patent claimed an abstract idea and was therefore invalid.[47] There are many more stories like Mr. Decher's. For example, testimony offered by United for Patent Reform also pointed to numerous patent infringement claims for abstract ideas like posting nutritional information on a web site or using an online shopping cart.[48] Such patents on broad concepts, business methods, and abstract ideas do not just harm business, they also preempt creative thought and implementation, inflicting clear harms to the public interest.

Conclusion

The law surrounding patent subject matter eligibility is clear. Patent examiners, the PTAB, and district court judges understand what subject matter is eligible for a patent under § 101, as evidenced by the high affirmance rates and low number of appealed § 101 decisions. Similarly, the writings of the Federal Circuit judges themselves express the judges' belief that the law governing patent subject matter eligibility is clear. In addition, proposed legislation threatens to violate the Constitution's First Amendment and Intellectual Property Clause, potentially requiring litigation to resolve. Expanding subject matter eligibility will not decrease confusion. Rather, abrogating current § 101 case law will create confusion for decision makers where none currently exists. Finally, expanding patent subject matter eligibility will harm innovation across multiple sectors. The ACLU opposes overturning 150 years of precedent that safeguards free access to abstract ideas, laws of nature, and the products of nature.

For any questions or comments, please contact Kate Ruane, American Civil Liberties Union, kruane@aclu.org, or Sandra Park, American Civil Liberties Union, spark@aclu.org.

Sincerely,

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[47] Electronic Frontier Foundation, *Alice Saves Medical Startup from Death by Telehealth Patent*, Saved by Alice, https://www.eff.org/alice/alice-saves-medical-startup-death-telehealth-patent.
[48] *The State of Patent Eligibility in America Before the S. Subcomm. on Intellectual Property*, 116th Cong. (2019) (statement of Stephanie Martz, General Counsel, National Retail Federation on behalf United for Patent Reform), https://www.judiciary.senate.gov/imo/media/doc/Martz%20Testimony.pdf.

Appendix[49]

Table 1: Federal Circuit § 101 Outcomes Compared to Overall Federal Circuit Outcome

Term	Overall Affirmance Rate	Overall Reversal Rate	Overall Rate for Both[50]	Overall Rate for Neither[51]	§ 101 Affirmance Rate	§ 101 Reversal Rate	§ 101 Rate for Both	Total § 101 Cases
2012-2013	55%	28%	11%	6%	33% (1)	33% (1)	33% (1)	3
2013-2014	51% (126)	33% (82)	9% (21)	7% (17)	75% (3)	25% (1)	0%	4
2014-2015	59% (121)	29% (59)	10% (20)	3% (6)	100% (10)	0%	0%	10
2015-2016	56% (154)	30% (82)	6% (18)	8% (23)	57% (4)	43% (3)	0%	7
2016-2017	59% (143)	26% (63)	10% (24)	5% (13)	69% (11)	19% (3)	12% (2)	16
2017-2018	59% (151)	29% (76)	6% (15)	6% (16)	71% (10)	14% (2)	14% (2)	14
2018-2019	56% (121)	31% (67)	4% (8)	9% (19)	63% (10)	31% (5)	8% (1)	16
2019-2020	55% (130)	28% (67)	7% (17)	10% (24)	41% (7)	41% (7)	12% (2)	17
2013-2020 Total	**56% (946)**	29% (496)	7% (123)	7% (118)	**65% (55)**	25% (21)	8% (7)	84

[49] Our analysis is based on the numbers provided by Gibson Dunn's annual Federal Circuit Year in Review, which analyzes precedential opinions by the Federal Circuit: Gibson Dunn, 2012/2013 Federal Circuit Year in Review 8 (2014), https://www.gibsondunn.com/20122013-federal-circuit-year-in-review/; Gibson Dunn, 2013/2014 Federal Circuit Year in Review 10, 16 (2014), https://www.gibsondunn.com/20132014-federal-circuit-year-in-review/; Gibson Dunn, 2014/2015 Federal Circuit Year in Review 9, 13 (2015), https://www.gibsondunn.com/20142015-federal-circuit-year-in-review/; Gibson Dunn, 2015/2016 Federal Circuit Year in Review 9, 13 (2016), https://www.gibsondunn.com/20152016-federal-circuit-year-in-review/; Gibson Dunn, 2016/2017 Federal Circuit Year in Review 9, 13 (2017), https://www.gibsondunn.com/20162017-federal-circuit-year-in-review/; Gibson Dunn, 2017/2018 Federal Circuit Year in Review 8, 12 (2018), https://www.gibsondunn.com/2017-2018-federal-circuit-year-in-review/; Gibson Dunn, 2018/2019 Federal Circuit Year in Review 8, 23 (2019), https://www.gibsondunn.com/2018-2019-federal-circuit-year-in-review/; Gibson Dunn, 2019/2020 Federal Circuit Year in Review 10, 15 (2021), https://www.gibsondunn.com/2019-2020-federal-circuit-year-in-review/. Case numbers in Table 2 omitted when not available in the Gibson Dunn Federal Circuit Year in Review.

[50] These decisions were affirmed in part and reversed in part.

[51] These decisions were neither affirmed nor reversed but had a different outcome such as being remanded.

Table 2: Federal Circuit § 101 Affirmance Rates Compared With § 102, § 103, and § 112 Affirmance Rates Over Time

Term	**§ 101 (Subject Matter Eligibility) Affirmance Rate**			**§ 102 (Anticipation) Affirmance Rate**			**§ 103 (Obviousness) Affirmance Rate**			**§ 112 (Written Description, Enablement, and Definiteness) Affirmance Rate**			**Overall Affirmance Rate** (all Federal Circuit appeals)
	Appeals from Decisions in District Courts and Agencies	Appeals from Decisions in District Courts[52]	Appeals from Agency Decisions	Appeals from Decisions in District Courts and Agencies	Appeals from Decisions in District Courts	Appeals from Agency Decisions	Appeals from Decisions in District Courts and Agencies	Appeals from Decisions in District Courts	Appeals from Agency Decisions	Appeals from Decisions in District Courts and Agencies	Appeals from Decisions in District Courts	Appeals from Agency Decisions	
2012-2013	33% (1)	33% (1)		52% (9)	63% (5)		60% (21)	58% (6)		60%	45%		55%
2013-2014	75% (3)	67% (2)	100% (1)	77%	89%	50%	54% (14)	67% (10)	36% (4)	68% (14)	69% (11)	75% (3)	51% (126)
2014-2015	100% (10)	100% (9)	100% (1)	83% (10)	90% (9)	50% (1)	68% (13)	67% (10)	75% (3)	45% (5)	45% (5)	0% (0)	59% (121)
2015-2016	57% (4)	50% (3)	100% (1)	45% (10)	38% (3)	54% (7)	63% (27)	73% (11)	57% (16)	67% (10)	64% (7)	77% (3)	56% (154)
2016-2017	69% (11)	77% (10)	33% (1)	44% (8)	43% (3)	45% (5)	66% (23)	90% (9)	56% (14)	44% (8)	45% (5)	43% (3)	59% (143)
2017-2018	71% (10)	75% (9)	50% (1)	67% (18)	67% (4)	67% (14)	66% (33)	85% (11)	59% (22)	67% (8)	56% (5)	100% (3)	59% (151)
2018-2019	63% (10)	54% (7)	100% (3)	64% (9)	75% (6)	50% (3)	74% (28)	69% (9)	76% (19)	44% (4)	60% (3)	25% (1)	56% (121)
2019-2020	41% (7)	31% (4)	75% (3)	65% (11)	67% (4)	64% (7)	53% (23)	64% (7)	50% (16)	57% (4)	50% (2)	67% (2)	55% (130)
2014-2020 Total	**65% (52)**	**63% (42)**	**71% (11)**	**60% (66)**	**64% (29)**	**58% (37)**	**64% (147)**	**74% (57)**	**60% (90)**	**54% (39)**	**53% (27)**	**57% (12)**	**56% (946)**

[52] Decisions from the District Courts include decisions made by a judge, a jury or a mix.