

**STABILIZING ALICE FOR ABSTRACT IDEAS: A CASE FOR
FEDERAL CIRCUIT TO TURN TO USPTO GUIDANCE**

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I. INTRODUCTION

The Supreme Court’s *Alice Corp. Pty. Ltd. v. CLS Bank Int’l* decision changed the scope of patent subject matter eligibility under 35 U.S.C. § 101,¹ but the decision’s two-pronged test has notoriously raised more questions than it has answered. Expanding the test in *Mayo Collaborative Services. v. Prometheus Labs., Inc* to all questions of subject matter eligibility,² *Alice* first asks the trial court to “determine whether the claims at issue are directed to a patent-ineligible concept (*Alice* Step One).”³ If the claims are found to be a patent-ineligible concept, the court must then analyze whether the claims at issue pertain to “an inventive concept” to “transform the nature of the claim into a patent-eligible application (*Alice* Step Two).”⁴ If the answer is no, then

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1. 573 U.S. 208 (2014).
2. 566 U.S. 66, 66 (2012).
3. *Alice*, 573 U.S. at 217.
4. *Id.*

the claim fails to have subject matter eligibility.⁵ Although the Court maintains that *Alice* is consistent with the court’s subject matter jurisprudence, commentators and scholars agree that *Alice* signals a clear break from the prior subject matter eligibility cases, such as *Diamond v. Diehr* even *Bilski v. Kappos*.⁶

The *Alice* framework has left lower courts, practitioners, United States Patent and Trademark Office (“USPTO”) examiners, and patent owners in limbo because of the lack of clarity in both steps.⁷ Even justices on the Federal Circuit have not yet agreed on how to consistently apply *Alice* — in *Athena v. Mayo*, the Federal Circuit issued seven different opinions disputing how to determine patentability.⁸ The issue has garnered some legislative attention. In April 2019, Senators Coons and Tillis proposed a draft framework to redefine subject matter eligibility under § 101, and Representatives Collins, Johnson, and Stivers proposed a bicameral bill containing new text for patent eligibility.⁹ Importantly, the draft framework explicitly abrogates *Alice*.¹⁰ Although the bill has been praised by many, it stalled in Congress.¹¹

5. *Id.*

6. *Diehr* comments on Congress’s intent that “statutory subject matter [] include[s] anything under the sun that is made by man” and recognized that a “claim drawn to subject matter otherwise statutory,” does not become ineligible “simply because it uses a mathematical formula, computer program, or digital computer.” 450 U.S. 175, 182, 187 (1981). *Bilski* cautions that the machine-or-transformation test is not the only subject-eligibility test, but proceed to apply the test anyways. 561 U.S. 593, 605 (2010). For more discussions on the history of the court’s subject matter eligibility development, see generally Paul Michel & John Battaglia, *Flaws in the Supreme Court’s § 101 Precedent and Available Ways to Correct Them*, IPWATCHDOG (Apr. 27, 2020) <https://www.ipwatchdog.com/2020/04/27/flaws-supreme-courts-%c2%a7101-precedent/id=121038/>.

7. See e.g., *Smart Sys. Innovations, LLC v. Chi. Transit Auth.*, 873 F.3d 1364, 1377 (Fed. Cir. 2017) (Linn, J., dissenting-in-part and concurring-in-part) (“The problem with [the *Alice*] test, however, is that it is indeterminate and often leads to arbitrary results.”); *Interval Licensing LLC v. AOL, Inc.*, 896 F.3d 1335, 1348 (Fed. Cir. 2018) (Plager, J., concurring-in-part and dissenting-in-part) (“The law, as I shall explain, renders it near impossible to know with any certainty whether the invention is or is not patent eligible.”)

8. *Athena Diagnostics, Inc. v. Mayo Collaborative Servs., LLC*, 927 F.3d 1333 (Fed. Cir. 2019)

9. See Press Release, *Tome 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>.

10. *Id.* (stating that “no implicit or other judicially created exceptions to subject matter eligibility, including ‘abstract ideas’, ‘laws of nature’, or ‘natural phenomena’, shall be used to determine patent eligibility under section 101, and all cases establishing or interpreting those exceptions to eligibility are hereby abrogated.”)

11. At an IPO meeting, Senator Tillis stated that “I don’t see a path forward for producing a bill—much less steering it to passage—in this Congress. . . .” Exclusive Q&A with Sen. Thom Tillis, INTELL. PROP. OWNERS ASS’N, <https://ipo.org/index.php/exclusive-qa-with-sen-thom-tillis/>.

Another path to resolving the ambiguity is for the Supreme Court to clarify its intentions in a subsequent case. But the Supreme Court seems reluctant to do that. It has turned down over fifty petitions on *Alice* issue over the past six years,¹² despite the repeated cry from lower courts and practitioners for more clarity.¹³ Although it could be that a perfect case for explaining *Alice* has not yet arrived at the Court's front door,¹⁴ after so many rejected petitions, it is hard to know when that day will finally come.

Immediately after the *Alice* decision, as one would expect, the percentage of patents invalidated by *Alice* saw a dramatic uptick at both the district court level and at the Patent Trial and Appeal Board (PTAB).¹⁵ Similarly, as the USPTO tries to grapple with the test, the percentage of *Alice*-affected applications were rejected at a record high level.¹⁶ But the *Alice*-induced uncertainty in subject matter eligibility have declined at both the application and litigation stages. In 2019, both the district court and the USPTO have seen rejection and invalidation rates based on § 101 going down.

This article examines the efforts of Federal Circuit and the USPTO to stabilize *Alice*'s unpredictability. Specifically, Federal Circuit's decisions, such as *HP Inc. v. Berkheimer*, clarified the procedural requirements on *Alice* Step Two. Similarly, USPTO's Berkheimer memorandum and 2019 Patent Eligibility Guidance contributed to the stabilization of *Alice* rejection rates and eligibility invalidation rates. I

12. Burman York Mathis II, *Supreme Court Denies 43rd Petition for Cert on 101 Grounds in Villena v. Iancu*, IPWATCHDOG (June 16, 2019), <https://www.ipwatchdog.com/2019/06/16/supreme-court-denies-43rd-petition-cert-101-grounds-villena-v-iancu/id=110425/>; Ryan Davis, *High Court Slams Door On Pleas To Redo Patent Eligibility*, LAW360 (Jan. 13, 2020), <https://www-law360-com.eresources.law.harvard.edu/articles/1233633>; Tiffany Hu, *Supreme Court Rejects 3 Alice Patent Appeals*, LAW360 (Mar. 23, 2020), <https://www-law360-com.eresources.law.harvard.edu/articles/1255888/supreme-court-rejects-3-alice-patent-appeals>.

13. *See, e.g.*, *Athena Diagnostics, Inc. v. Mayo Collaborative Servs., LLC*, 927 F.3d 1333, 1337 (Fed. Cir. 2019) (J. Hughes, concurring) (“Such an explication might come from the Supreme Court. Or it might come from Congress, with its distinctive role in making the factual and policy determinations relevant to setting the proper balance of innovation incentives under patent law.”); *Berkheimer v. HP Inc.*, 890 F.3d 1369, 1376 (Fed. Cir. 2018) (Lourie, J., concurring) (“Resolution of patent-eligibility issues requires higher intervention, hopefully with ideas reflective of the best thinking that can be brought to bear on the subject.”).

14. Brief for the United States as Amicus Curiae, *Hikma v. Vanda*, 139 S. Ct. 1368 (2019) (No. 18-817). (recommending the Court to deny certiorari, but stating that “[t]he confusion created by this Court’s recent section 101 precedents warrants review in an appropriate case.”).

15. *See, e.g.*, Jeffrey A Lefstin, Peter S Menell and David O. Taylor, *Final Report of the Berkeley Center for Law & Technology Section 101 Workshop: Addressing Patent Eligibility Challenges*, 33 BERKELEY TECH. L. J. 551, 575–76 (2018) (showing an invalidity rate of 77% in 2014 gradually lowering to a 45.5% in 2017, averaging a 19% increase in invalidity decisions over 32 months post-Alice).

16. *Id.* at 586–87.

argue that the court should learn from the USPTO's Patent Eligibility Guidance's categorization approach to *Alice* Step One in order to further stabilize the unpredictability around patent eligibility, at least while the Supreme Court and legislature remain unwilling or unable to step into this area of law.

II. THE EFFORTS OF FEDERAL CIRCUIT AND USPTO AT STABILIZING *ALICE* REJECTION

Both the Federal Circuit and USPTO have tried to bring consistency to patent eligibility. Despite the continued ambiguity in the doctrine, the Federal Circuit turned to procedural tools, limiting the rate at which patents are thrown out of court at the outset without resolving factual issues. In contrast, the USPTO is unafraid to give substantive clarity despite carefully rooting itself in the case law. Its guidance on subject matter eligibility that purportedly applies to its examiners and patent judges has brought down *Alice* rejection and invalidation rates.

A. Federal Circuit Case Law

The Federal Circuit has clarified certain procedural and evidentiary requirements—especially at the motion to dismiss stage. Previously, motions to dismiss for failure to state a claim has become an effective tool for alleged infringers to rid themselves of plaintiff's claims after the *Alice* decision. In *HP Inc. v. Berkheimer* and *Aatrix Software v. Green Shades Software*, Federal Circuit severely limited this ability, ruling that Rule 12 and summary judgment of patent ineligibility are premature where a party raises questions of fact as to whether the patent's claims contain an inventive concept, as required for the claims to survive the second step of *Alice*.¹⁷ *Berkheimer* and *Aatrix* drastically reduced the rate at which motions to dismiss and summary judgments were granted in courts. Little over a year after their issuance, the percentage of patents invalidated at the Rule 12 stage dropped to about 45%, down from 70% pre-*Berkheimer*.¹⁸ The invalidation rate on summary judgments also dropped from about 59% to about 40%.¹⁹ The two decisions dramatically reduced the possibility of a defendant's success before discovery, which is usually the most cost-heavy part of litigation.

17. *Berkheimer v. HP Inc.*, 881 F.3d 1360 (Fed. Cir. 2018); *Aatrix Software v. Green Shades Software*, 882 F.3d 1121 (Fed. Cir. 2018).

18. *Alice's Post-Berkheimer Decline Continues, with Summary Judgment Hit the Hardest*, RPX (Oct. 23, 2019), <https://www.rpxcorp.com/data-byte/alices-post-berkheimer-decline-continues-with-summary-judgment-hit-the-hardest/>.

19. *Id.*

Despite this impact on the invalidation rate, *Berkheimer* and *Aatrix* are an uneasy and partial solution to *Alice*. First, the requirement to resolve factual issues is not explicitly supported by *Alice*.²⁰ The Supreme Court never stated in *Alice* that fact questions might impact the analysis, even though that case was decided at the summary judgment stage.²¹ The Court also did not cite any evidence or engage in fact finding as part of its inventive concept analysis.²² Second, whether a claim contains enough factual inquiry to survive a motion to dismiss or summary judgment is in the eye of the beholder — even the Federal Circuit has not applied *Berkheimer* across the board. True to its statement in *Berkheimer* that “[n]othing in this decision should be viewed as casting doubt on the propriety of [patent eligibility dispute resolved on motions to dismiss or summary judgments],”²³ the Federal Circuit continues to affirm summary judgment and Rule 12 ineligibility findings even when they lack factual inquiries, mitigating *Berkheimer*’s effect.²⁴ Following the lead, a host of district court cases also continue to find that no factual inquiry is necessary for their particular case.²⁵ In other words, *Berkheimer* and *Aatrix* stop short of establishing a per se rule against patent eligibility determinations. Third, how to resolve patent eligibility inquiries that include a factual dispute remains an open question.²⁶ Before *Berkheimer* and *Aatrix*, courts were treating patent eligibility as pure questions of law that never goes to the jury.²⁷ But now, recognizing patent eligibility’s factual component, many think that juries ought to decide eligibility.²⁸ But in reality, very few

20. Jeremy Anapol, *The Impact of Fact Issues on Patent Eligibility after Berkheimer*, KNOBBE MARTENS (June 19, 2019), <https://www.knobbe.com/news/2019/06/impact-fact-issues-patent-eligibility-after-berkheimer>.

21. *Alice Corp. Pty. Ltd. v. CLS Bank Intern.*, 573 U.S. 208, 214 (2014).

22. *Id.* at 220–27.

23. *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1368 (Fed. Cir. 2018).

24. *See, e.g.*, *SAP Am., Inc. v. InvestPic LLC*, 890 F.3d 1016, 1023–24 (Fed. Cir. 2018) (holding claims ineligible at Rule 12(c) stage); *Voter Verified, Inc. v. Election Sys. & Software LLC*, 887 F.3d 1376, 1385–86 (Fed. Cir. 2018) (same at Rule 12(b)(6) stage); *Maxon, LLC v. Funai Corp., Inc.*, 726 Fed. Appx. 797, 2018 WL 1719101, at *2 (Fed. Cir. 2018) (same); *Intellectual Ventures I LLC v. Symantec Corp.*, 725 Fed. Appx. 976, 2018 WL 1324863, at *1 (Fed. Cir. 2018) (same at summary judgment); *Automated Tracking Sols., LLC v. The Coca-Cola Co.*, 723 Fed.Appx. 989, 2018 WL 935455, at *5–6 (Fed. Cir. 2018) (same at Rule 12(c) stage).

25. *See, e.g.*, *Uniloc USA v. Apple Inc.*, No. C 18-00358, 2018 WL 2287675, at *7 (N.D. Cal. May 18, 2018) (distinguishing from *Berkheimer*); *Search & Social Media Partners LLC v. Facebook Inc.*, No. 17-1120, 2018 WL 4674572, at *8 (D. Del. Sept. 28, 2018) (finding no factual allegations prevented resolving the eligibility question as a matter of law).

26. Paul R. Gugliuzza, *Law, Fact, and Patent Validity*, 106 IOWA L.R. (Forthcoming 2020) (manuscript at 20).

27. One outlier is *S Techs., LLC v. Twitter, Inc.*, No. 2:11cv43, 2012 WL 1481508, at *4 (E.D. Va. Apr. 27, 2012) (upholding a jury verdict of ineligibility).

28. *See, e.g.*, Ryan Davis, *Getting Juries to Ax Patents Under Alice May Be Hard Sell*, LAW360 (Mar. 5, 2018), <https://www.law360.com/articles/1017998> (“If judges find that there are [factual]disputes[relevant to eligibility], that will in many cases require a jury trial . . .”); Gregory H. Lantier & Richard A. Crudo, *Can Juries Decide Patent Eligibility Under 35*

courts submit factual disputes on patent eligibility to juries,²⁹ and Federal Circuit has yet to provide procedural guidance on patent eligibility post-summary judgment in general. Arguably, opening patent eligibility questions to the jury can create further uncertainty in patent eligibility. These limitations to *Berkheimer* and *Aatrix* ensure that the heterogeneity of patent eligibility inquiry continues.

The Federal Circuit did not stop at *Berkheimer* or *Aatrix* either. To further limit *Alice*, in *CellSpin Soft v. Fitbit*, the Federal Circuit ruled that factual allegations at the inventive step stage in an amended complaint are sufficient to preclude dismissal even without citations to any evidence such as specifications.³⁰ Another procedural requirement came in *MyMail v. ooVoo*, where the court ruled that courts must address genuine claim construction disputes before ruling on § 101 challenges.³¹ *MyMail* continued the spirit of *Berkheimer* and *Aatrix* by further limiting the possibility of an *Alice* dismissal at the outset.³² Unlike *Berkheimer* and *Aatrix*, *MyMail*'s holding is not limited to the second step of the *Alice* inquiry, and thus is likely to have an even broader impact. However, to date, no empirical study has been done on the impact of this decision.

B. USPTO's Berkheimer Memorandum and 2019 Patent Eligibility Guidance

In April 2018, not long after the *Berkheimer* decision, the USPTO issued a memorandum ("Berkheimer memorandum") to its examiners addressing whether an additional element represents well-understood, routine, conventional activity.³³ Prior to the release of the Berkheimer memorandum, examiners were instructed to conclude that a claim

U.S.C. § 101?, 27 FED. CIR. B.J. 45, 60 (2017) ("[T]here is no obvious reason why factual issues underlying patent-eligibility challenges should not be given to juries.").

29. In *PS DATA, LLC v. Jack Henry & Associates, Inc.* (E.D. Tex. Sept 2019), after the judge denied summary judgment based on *Berkheimer* a jury invalidated asserted claims based on patent eligibility. This seems to be the first case of jury finding patent invalid based on § 101. See Jay Heidrick, *Jury Verdict Invalidated a Patent Under Section 101*, JDSUPRA (Sep. 24, 2019) <https://www.jdsupra.com/legalnews/jury-verdict-invalidated-a-patent-under-56043/>.

30. *Cellspin Soft, Inc. v. Fitbit, Inc.*, 927 F.3d 1306, 1317–18 (Fed. Cir. 2019), *cert. denied sub nom.* *Garmin USA, Inc. v. Cellspin Soft, Inc.*, 140 S. Ct. 907 (2020) ("[P]lausible and specific factual allegations that aspects of the claims are inventive are sufficient... Accepting the allegations stated above as true, we cannot conclude that the asserted claims lack an inventive concept.").

31. *MyMail, Ltd. v. ooVoo, LLC*, 934 F.3d 1373, 1380–81 (Fed. Cir. 2019).

32. *Id.* at 1380–81 ("[T]he district court's failure to address the parties' claim construction dispute is error under *Aatrix*.").

33. U.S. PATENT AND TRADEMARK OFF., CHANGES IN EXAMINATION PROCEDURE PERTAINING TO SUBJECT MATTER ELIGIBILITY, RECENT SUBJECT MATTER ELIGIBILITY DECISION (BERKHEIMER v. HP, INC.)" (Apr. 19, 2018), <https://www.uspto.gov/sites/default/files/documents/memo-berkheimer-20180419.PDF> [hereinafter "BERKHEIMER MEMORANDUM"].

element was “well-understood, routine, conventional activity” under *Alice* Step Two when the element was widely prevalent or in common use in the relevant industry without needing to provide factual evidence.³⁴ The Berkheimer memorandum changed that. First, whether a claim element includes a “well-understood, routine, conventional activity” can now only be addressed in the last step — previously it was possible to address it in the first step.³⁵ Second, it asks examiners to support an assertion of routineness with a “factual determination.”³⁶ Third, when an applicant challenges such a position, examiners must provide proof of the factual findings, analogous to the *Berkheimer* case law requirement for courts.³⁷ The memo reversed the upward trend in subject matter eligibility rejections continuous since the *Alice* decision.³⁸ The drop in the rate of first office action Section 101 rejection was statistically significant.³⁹

But the USPTO did not stop there. On January 7, 2019, the USPTO issued a Revised Patent Subject Matter Eligibility Guidance (“2019 Guidance” or “Guidance”), making significant structural changes to how examiners approach *Alice* Step One and Two.⁴⁰ The 2019 Guidance states that the goals are to “increas[e] predictability and consistency in the patent eligibility analysis” and “increase consistency in examination practice.”⁴¹

The new Guidance incentivizes the examiners to find claims eligible unless they are very broad and abstract. It does this in several ways. First, aiming to clarify “abstract idea,” it distills three enumerated groups of ineligible abstract ideas from judicial precedents and asks the examiners not to treat claims falling outside these groups as abstract except in rare circumstances.⁴² Second, in interpreting “directed to [a patent-ineligible concept],” it requires examiners to find claims eligible if any abstract idea was integrated into a “practical application.”⁴³

34. May 2016 Subject Matter Eligibility Update, 81 Fed. Reg. 88,27381, 88,27381 (May 6, 2016), (to be codified at 37 C.F.R. Pt. 1), <https://www.govinfo.gov/content/pkg/FR-2016-05-06/pdf/2016-10724.pdf>.

35. BERKHEIMER MEMORANDUM, *supra* note 33, at 2.

36. *Id.* at 2–4.

37. *Id.* at 5.

38. ANDREW A. TOOLE & NICHOLAS A. PAIROLERO, U.S. Patent and Trademark Off. ADJUSTING TO ALICE: USPTO PATENT EXAMINATION OUTCOMES AFTER *ALICE CORP. V. CLS BANK INTERNATIONAL*, No. 3, 5–6 (Apr. 2020), https://www.uspto.gov/sites/default/files/documents/OCE-DH_AdjustingtoAlice.pdf.

39. *Id.*

40. 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 4,50 (Jan. 7, 2019), <https://www.govinfo.gov/content/pkg/FR-2019-01-07/pdf/2018-28282.pdf>.

41. *Id.* at 53.

42. *Id.* at 53, 57; *see also* Andrei Iancu, Director, U.S. Patent and Trademark Off., Remarks by Director Iancu at the Intellectual Property Owners Association 46th Annual Meeting (Sep. 24, 2018), <https://www.uspto.gov/about-us/news-updates/remarks-director-iancu-intellectual-property-owners-46th-annual-meeting>.

43. 2019 Revised Patent Subject Matter Eligibility Guidance, *supra* note 40, at 53–55.

Third, to illustrate the interpretation of “directed to,” it adds additional examples of how elements can be integrated into eligible practical applications and construe counter-examples narrowly.⁴⁴ Fourth, it cemented Berkheimer memorandum’s requirement that the routineness question must be addressed last, and that findings of routineness must be supported by factual determination.⁴⁵ Finally, even for cases that are under the recited judicial exceptions, the Guidance encourages examiners to reevaluate that conclusion at multiple steps.⁴⁶ Note that unlike the Federal Circuit case law or Berkheimer Memorandum that only dealt with *Alice* Step Two, the first three major points of the Guidance clarify *Alice* Step One without initiation by any one judicial precedent. It reflects the USPTO’s own analysis of the law and its policy directive.

The Guidance successfully reduced patent eligibility rejection and uncertainty. Only one year after the 2019 Guidance, the likelihood of *Alice*-affected technologies receiving a first office action with a rejection for patent-ineligible subject matter decreased by 25%.⁴⁷ This is the most significant dip since *Alice*, more so than the drop immediately after the release of the Berkheimer Memorandum. Uncertainty in the first action stage of patent examination also decreased sharply. The 2019 Guidance had a statistically significant effect on the variation in examiner’s first office action for *Alice*-affected technologies, bringing the uncertainty down by around 44%.⁴⁸

The litigation impact of the 2019 Guideline and the October Update was also significant. The PTAB has cited the 2019 Guidance in all its final written decisions addressing patent eligibility under *Alice* since its release.⁴⁹ The PTAB’s approach appears consistent with the October Update to the 2019 Guidance, which requires all USPTO personnel to follow it as effectively binding.⁵⁰

44. *Id.* at 55.

45. *Id.*

46. *Id.* at 56.

47. TOOLE & PAIROLERO, *supra* note 38, at 5–6.

48. *Id.* at 6–7.

49. *See, e.g.*, Ex Parte Jochen L. Leidner & Frank Schilder, No. APPEAL 2020-001885, 2020 WL 4673723, at *2 (P.T.A.B. Aug. 3, 2020); Ex Parte Howard W. Lutnick & Stuart A. Hersch, No. APPEAL 2019-004398, 2020 WL 1686218, at *2 (P.T.A.B. Apr. 2, 2020).

50. On October 17, 2019, the USPTO issues an update (“October Update”) to its 2019 Guidance, which clarified that while the 2019 Guidance does not constitute substantive rulemaking and does not have the force and effect of law, it does constitute Office guidance and, accordingly, USPTO personnel — including examiners and administrative patent judges on PTAB — are expected to follow it. *See* U.S. PATENT AND TRADEMARK OFF., OCTOBER 2019 UPDATE: SUBJECT MATTER ELIGIBILITY, 5–8 (Oct. 17, 2019), https://www.uspto.gov/sites/default/files/documents/peg_oct_2019_update.pdf. [hereinafter “OCTOBER 2019 UPDATE”].

III. ZOOMING IN ON ABSTRACT IDEAS GROUPINGS IN USPTO'S PATENT ELIGIBILITY GUIDANCE

As above, the USPTO's Guidance was successful at bringing stability through its guidance.⁵¹ The institutional advantage as an executive branch probably contributed to this efficiency. The USPTO can issue direct guidance with hypotheticals and interpretations of judicial examples. In contrast, the court is limited to the case in front of them. The USPTO can also, as a policy matter, create an incentive structure for its examiners to decrease *Alice*-based rejection, while individual judges are unlikely to be incentivized that way. As a result, much of this efficiency brought on by the Berkheimer memorandum and 2019 Guidance cannot be enjoyed by the courts.

Nevertheless, the categorization for abstract ideas adopted in the 2019 Guidance on *Alice* Step One can alleviate some of the chaos caused by the lack of definition of abstract idea at the court level.⁵² In the 2019 Guidance, the USPTO broke down *Alice* Step One analysis into two subparts: first, the examiner must determine if a claim "recites" an abstract idea or other judicial exception; if it does, the examiner then applies the second subpart to determine whether it is "directed to" the idea itself.⁵³ Under the first part, the USPTO synthesized the various types of subject matter found by courts to be abstract ideas into three categories or groupings: "mathematical concepts," "certain methods of organizing human activity," and "mental processes."⁵⁴ The three groupings are also supplemented with subgroupings, and each subgrouping is supported by example case law.

The breakdown of *Alice* Step One helps examiners and practitioners navigate judicial precedents, and provides structure and clarity to the vacuum of *Alice* Step One jurisprudence, which is badly needed at the court level. Although courts are required to "compare claims at issue to those claims already found to be directed to an abstract idea in previous cases,"⁵⁵ that approach has since become impractical. Providing the three categorizations as a starting point for

51. I have found no studies that look at the variation rate at the district court level.

52. The Supreme Court stopped well short of any definition of abstract idea, and lower courts and the patent office are instead left "to compare claims at issue to those claims already found to be directed to an abstract idea in previous cases." *see, LLC v. Microsoft Corp.*, 822 F.3d

1327, 1334 (Fed. Cir. 2016).

53. 2019 Revised Patent Subject Matter Eligibility Guidance, *supra* note 40, at 51.

54. *Id.* at 51–53.

55. *Enfish*, 822 F.3d at 1334; *see also* *Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1294 (Fed. Cir. 2016) ("[T]he decisional mechanism courts now apply [to identify an abstract idea] is to examine earlier cases in which a similar or parallel descriptive nature can be seen — what prior cases were about, and which way they were decided.").

analyzing whether a claim falls under the abstract idea exception would be helpful for district courts to understand and apply precedents.

In addition, the USPTO's proposed abstract idea categorizations are consistent with judicial precedents and makes sense in practice — in fact, the courts have already been doing this informally.⁵⁶ First, the proposed groupings are rooted in language from Federal Circuit's and Supreme Court's case law. For example, *Bilski v. Kappos* recognizes “mathematical formula” as abstract ideas.⁵⁷ Second, the enumerated groupings do not categorically eliminate any types of patent, which is congruent with the *Alice* approach. Rather, the language of the three groupings do a much better job at honoring this intention of *Alice* and *Biliski* courts compared to other proposals, such as “pure information processing algorithm” proposed by some commentators,⁵⁸ which would categorically eliminate one type of software patents that courts sometimes found to be patent-eligible.⁵⁹

The three groupings of abstract ideas are not perfect. Some have raised the objection that the enumerated groupings themselves need a definition. For example, the mathematical concepts grouping can cover a wide or narrow range of patents depending on its interpretation.⁶⁰ However, the enumerated categorization is supported by additional explanatory language and a number of case law that the USPTO has identified to help clarify the scope. Another source of confusion is the “human activity” category. The USPTO maintains that “not all methods of organizing human activity are abstract ideas,” but does not provide extrapolatable examples or descriptions of what counts and what does not.⁶¹ Regardless, the groupings and the categorization approach are still a much-needed improvement to current *Alice* Step One analysis.

56. Kee Young Lee, Case Comment, *The Relative Importance of Intrinsic Evidence in the Alice “Directed to” Inquiry*, HARV. J.L. & TECH. DIG. (2019), <https://jolt.law.harvard.edu/digest/the-relative-importance-of-intrinsic-evidence-in-the-alice-directed-to-inquiry> (“New claims were compared to these conceptually broader categories to determine whether they were directed to an abstract idea.”).

57. *Bilski v. Kappos*, 561 U.S. 593, 611, (2010). “A method of organizing human activity” are also considered by at least four justices to be abstract ideas. *See id.* at 628 (“[I]t does not appear that anyone seriously believed that one could patent ‘a method for organizing human activity.’”) (Stevens, J., concurring)).

58. Ben Klemens, Comments on Proposed Guidance on Abstract Ideas and Laws of Nature (Jan 25, 2019), https://www.uspto.gov/sites/default/files/documents/eligibility2019comments_f_Klemens_2019jan25.pdf

59. *See, e.g., Koninklijke KPN N.V. v. Gemalto M2M GmbH*, 942 F.3d 1143, 1149 (Fed. Cir. 2019)

60. Klemens, *supra* note 58

61. OCTOBER 2019 UPDATE, *supra* note 50, at 4–5.

IV. BORROWING FROM THE ABSTRACT IDEAS GROUPING

Having discussed the stabilizing effects and logic of the abstract idea categorization in the Guidance, could the courts borrow it, and if so, how? There are three potential ways the courts can utilize this categorization, with varying degrees of deference to USPTO.

A. Judicial Deference

Borrowing from the USPTO Guidance could take the form of judicial deference, although this argument has been rejected by the Federal Circuit.⁶² The Federal Circuit has long held that *Chevron* deference is not applicable to USPTO regulation,⁶³ although the reverse is true for procedural rules.⁶⁴ More recently, in *Cleveland Clinic Found. et al. v. True Health Diagnostics LLC*, the court declined to give deference to the Examples in 2019 Guidance,⁶⁵ explaining:

While we greatly respect the PTO’s expertise on all matters relating to patentability, including patent eligibility, we are not bound by its guidance. And, especially regarding the issue of patent eligibility and the efforts of the courts to determine the distinction between claims directed to [judicial exceptions] and those directed to patent-eligible applications of those [exceptions], we are mindful of the need for consistent application of our case law.⁶⁶

Likewise, in *In re Rudy*, the court again held that “we apply our law and the relevant Supreme Court precedent, not the Office Guidance, when analyzing subject matter eligibility.”⁶⁷ Unless the

62. I do not consider the deference PTAB ought to pay to the 2019 Guidance in *inter partes* reviews proceedings because such review on patent eligibility is limited to substitute claims. See *Uniloc 2017 LLC v. Hulu, LLC*, 966 F.3d 1295, 1303–09 (Fed. Cir. 2020) (holding that PTAB may consider patent eligibility under 35 U.S.C. § 101 for substitute claims).

63. *Merck & Co. v. Kessler*, 80 F.3d 1543, 1550 (Fed. Cir. 1996) (“[T]he broadest of the PTO’s rulemaking powers [] authorizes the Commissioner to promulgate regulations directed only to the conduct of proceedings in the [PTO] it does not grant the Commissioner the authority to issue substantive rules . . . controlling deference set forth in *Chevron* does not apply”) (internal quotation omitted).

64. *Cooper Techs. Co. v. Dudas*, 536 F.3d 1330, 1337 (Fed. Cir. 2008) (“Because the Patent Office is specifically charged with administering statutory provisions relating to ‘the conduct of proceedings in the Office,’ 35 U.S.C. § 2(a)(2)(A), we give *Chevron* deference to its interpretations of those provisions.”)

65. *Cleveland Clinic Found. v. True Health Diagnostics LLC*, 760 F. App’x 1013, 1014 (Fed. Cir. 2019).

66. *Id.* at 1020.

67. 956 F.3d 1379, 1383 (Fed. Cir. 2020).

Federal Circuit reverses course, the wholesale adoption of the USPTO's 2019 Guidance is unworkable.⁶⁸

B. Guidance as a Supplementary Authority

Regardless, it remains possible to treat the 2019 Guidance as a supplementary authority on the issue of categorization. This approach does not contradict the Federal Circuit's caselaw — both *Cleveland Clinic* and *In re Rudy* concern the misinterpretation of prior Federal Circuit case law in the form of Examples in the 2019 Guidance, not the categorization itself. Moreover, treating the 2019 Guidance as a supplementary authority is completely different from giving the USPTO *Chevron* deference. Due to the unresolved meaning of § 101, even a mere *Skidmore*-like deference could justify the court's supporting of USPTO's abstract idea categorization.

Importantly, nothing in *Alice* itself prevents the courts from implementing a categorization. Although *Enfish*'s requirement that courts must compare cases to judicial precedents could be a barrier to using a categorization approach,⁶⁹ categorizations can still be used as a tool to navigate existing case law rather than a definition itself.

Indeed, some district court opinions have cited the Guidance for exactly this purpose. For example, Judge Vince Chhabria in the Northern California District cites the Guidance in two decisions in concluding that the challenged claims are directed to an abstract idea, noting that the claims fall into the Guidance's "organizing human activity" abstract idea category.⁷⁰ In these cases, citations to the Guidance are accompanied by citations to the underlying court rulings. This is also true of the PTAB cases that cite the Guidance as well.⁷¹ These cases show that at least some district court judges found the 2019 Guidance to be a helpful way of explaining their reasoning. Parties also like to cite the 2019 Guidance as a supplementary authority in its briefing materials.

Another reason to take up the 2019 Guidance's abstract idea categories is to narrow the gap in USPTO's and the Federal Circuit's understanding of patentability widened in *Cleveland Clinic* — many practitioners (reasonably) relied on the USPTO Guidance for eligibility, only to feel betrayed by the Federal Circuit's dismissal of

68. Some suggest that the Federal Circuit has entered into a new era of deference to the USPTO, see Timothy R. Holbrook, *The Federal Circuit's Acquiescence (?)*, 66 AM. U. L.R. 1061, 1068–89, but this was before *Cleveland Clinic* was issued.

69. See *supra* note 55.

70. *Boom! Payments, Inc. v. Stripe, Inc.*, No. 19-cv-00590, 2019 WL 6605314, at *1 (N.D. Cal. Nov. 19, 2019); *NetSoc, LLC v. Quora, Inc.*, No. 19-cv-06518, 2020 WL 415919, at *1 (N.D. Cal. Jan. 27, 2020).

71. See, e.g., *Supercell Oy v. Gree, Inc.*, No. PATENT 9,770,659 B2, 2019 WL 4239632, at *6 (P.T.A.B. Sept. 6, 2019) (referring to the 2019 Guidance).

the 2019 Guidelines.⁷² In general, Federal Circuit gives USPTO a fair amount of deference, both in IPR proceedings and in cases concerning PTAB's authority and USPTO's rulemaking power.⁷³

C. A New Categorization

However, suggesting the Federal Circuit take up the USPTO's *Alice* Step One analysis might seem like getting the issue backward — after all, the USPTO is supposed to follow the courts' guidance, not the other way around. For those uncomfortable with the idea of courts passing the baton to the USPTO, grouping cases into categories for abstract ideas is still an approach worth considering.

Providing categorization similar to those in the Guidance at the litigation stage would achieve what the Federal Circuit is doing with the *Alice* jurisprudence all along: narrowing its scope. By identifying certain subject matter groups as properly qualifying for characterization as abstract ideas, a categorization approach can narrow and clarify what is an abstract idea *ex ante*.⁷⁴ An additional benefit of coming up with its own categorization would be that the Federal Circuit can safely part way with the danger of paying USPTO deference.

The downside of this approach is worth considering. If the courts end up having a very different categorization scheme than the USPTO, it would sew more confusion than clarification. In addition, it might be practically difficult for a court so splintered on *Alice* issues to come up with a categorization scheme that can get a majority vote. Since categorization is effectively a definition, some judges might even read *Alice* to inherently oppose categorization as an approach to *Alice* Step One.⁷⁵ Framing the categorization as non-binding, empirical observation friendly to individual exceptions might be one way to get around it, and indeed the USPTO Guidance allows for the rare

72. Brief of Amicus Curiae International Game Technology PLC in Support of Petitioner, Trading Technologies Intern., Inc. v. IBG, LLC, 2019 WL 5390111, at *16 (“[I]t is clear from the *Cleveland Clinic* decision that any faith in the USPTO's guidelines is entirely misplaced, leaving inventors with even less confidence that their investments will be adequately protected even if the USPTO grants patent protection.”).

73. Christopher A. Suarez, *Navigating Inter Partes Review in the Federal Circuit: A Statistical Review*, LANDSLIDE, Jan.–Feb. 2017, at 49,50 (finding that the Federal Circuit affirmed the PTAB in IPRs 82% of the time); see also Holbrook, *supra* note 68, at 1088 (2017) (discussing *In re Cuozzo Speeding Technologies, LLC*, 793 F.3d 1268 (Fed. Cir. 2015), *aff'd sub nom.* *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131 (2016)).

74. See Gene Quinn, *Revised Patent Eligibility Guidance Effectively Defines What is an Abstract Idea*, IPWATCHDOG (Jan. 4, 2019), <https://www.ipwatchdog.com/2019/01/04/patent-eligibility-guidance-abstract-idea/id=104754/>.

75. See *Interval Licensing LLC v. AOL, Inc.*, 896 F.3d 1335, 1348 (Fed. Cir. 2018) (“[A] search for a definition of ‘abstract ideas’ in the cases on § 101 from the Supreme Court, as well as from this court, reveals that there is no single, succinct, usable definition anywhere available.”) (Plager, J., concurring-in-part and dissenting-in-part).

exceptions outside the enumerated categories. But the stabilizing effect would be weaker — practitioners and lower courts still need to confront the fact-intensive judicial exceptions that inevitably would arrive.

Nevertheless, it is time for the Federal Circuit to clarify *Alice* Step One. Given the vast number of judicial precedents available, it would make sense for the court to look to the USPTO's 2019 Guidance and take a similar categorization approach that can be easily understood and applied by the lower courts, whether recognizing the Guidance as a supplementary authority or not. In addition to the substantive merits of this approach, it has the potential to provide further clarity and stability just as the USPTO's 2019 Guidance did with patent applications.