

NOTES

AMBITION AND CONTROVERSY—ANDREI IANCU’S UNPRECEDENTED TENURE AT THE UNITED STATES PATENT AND TRADEMARK OFFICE

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ABSTRACT

Andrei Iancu served as Director of the United States Patent and Trademark Office (hereafter, “USPTO”) from February 2018 to January 2021. In his brief tenure, Director Iancu oversaw several significant policy changes at the USPTO. This Note examines in detail the most momentous initiatives undertaken by former Director Iancu. Furthermore, this Note describes the diverse responses to various initiatives, and contemplates their continued effect on intellectual property practice in the United States.

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CONTENTS

I. INTRODUCTION	366
II. POLICY CHANGES AT THE PATENT OFFICE	368
A. Claim Construction Standard	368
B. Fintiv Discretionary Denials	373
C. Fast-Track Appeals Pilot Program	376
D. Motion to Amend Pilot Program	377
E. 2019 Revised Patent Subject Matter Eligibility Guidance	379
1. Background	379
2. Issuance of Guidance	385
3. Response	386
4. Effect on Patent Practice	388
5. Suggestions	389
F. COVID-19 Response	391
G. Equity in Invention	392
III. CONCLUSION	394

I. INTRODUCTION

On January 19, 2021, Andrei Iancu bid farewell to his time with the United States Patent and Trademark Office (hereinafter “USPTO”) and highlighted what he considered to be the most significant accomplishments of his tenure with the Office.¹ In his speech, Director Iancu spoke with patriotic undertones about overcoming unfavorable circumstances as a young boy fleeing Romania.

Next month—February—will mark precisely 40 years since my arrival in the United States. I came as a political refugee from Romania. At that time, Romania was in the throes of a repressive communist regime. Since my arrival in the United States, I believe I have truly lived the American dream. Coming here with absolutely nothing, and speaking virtually no English, my story would not have been possible anywhere else in the world. It is the story of America. My story is a testament to the true promise of this country, and the fundamental goodness and fairness of its people.²

¹ See Anthony J. Fuga, *USPTO Director Iancu Calls for Section 101 Patent Eligibility Reform in Farewell Speech*, HOLLAND & KNIGHT (Jan. 27, 2021).

² Remarks by Director Iancu at the U.S. Chamber of Commerce event “How Innovation and Creativity Drive American Competitiveness,” U.S. PAT. & TRADEMARK OFF. (Jan. 19, 2021), <https://uspto.gov/about-us/news-updates/remarks-director-iancu-us-chamber-commerce-event-how-innovation-and>.

Iancu's education in the States was completed at the University of California Los Angeles (hereinafter "UCLA"), where he earned a Bachelor of Science in aerospace engineering in 1989 and a Master of Science in mechanical engineering in 1990.³ After a brief engineering career with Hughes Aircraft Co., Iancu began his legal education at UCLA School of Law, where he earned his Juris Doctor in 1996.⁴ Thereafter, Iancu began his career with Irell & Manella as a patent attorney.⁵ At Irell, Iancu was involved in high-profile litigation before the district courts, the U.S. Court of Appeals for the Federal Circuit, the U.S. International Trade Commission, and proceedings before the USPTO.⁶ He represented clients involving a broad range of subject matter, from genetic testing to therapeutics to the internet and computer peripherals.⁷ Iancu served at the firm for two decades, including as managing partner from 2012 to 2018.⁸

In August 2017, President Donald Trump announced his nomination of Iancu as the next Under Secretary of Commerce for Intellectual Property and Director of the USPTO.⁹ The nomination was followed by a unanimous approval of the Senate in February 2018.¹⁰ In addition to the challenges facing any incoming director—those inherent in leading one of the largest intellectual property offices in the world with some 13,000 employees and an annual budget exceeding \$3 billion—Iancu took the helm of the Patent Office at a particularly contentious time in the intellectual property arena, especially concerning the patentability of certain subject matter. In an extensive interview that I conducted with Director Iancu to discuss his career and tenure at the Patent Office, he told me that addressing the patent eligibility issue was one of his goals when he was first appointed.¹¹ He also aspired to "change the dialogue surrounding

³ *Andrei Iancu*, IRELL & MANELLA LLP, <http://irell.com/professionals-andrei-iancu> (last visited Feb. 28, 2023).

⁴ *See id.*

⁵ *See id.*

⁶ *Id.*

⁷ *Id.*

⁸ *Id.*

⁹ Gene Quinn, *Trump Nominates Andrei Iancu to be USPTO Director*, IP WATCHDOG (Aug. 26, 2017, 2:16 PM), <https://ipwatchdog.com/2017/08/26/trump-nominates-andrei-iancu-uspto-director>.

¹⁰ *Senate Floor Activity - Monday, February 5, 2018*, U.S. SENATE (Feb. 5, 2018), https://www.senate.gov/legislative/LIS/floor_activity/2018/02_05_2018_Senate_Floor.htm.

¹¹ Interview with Andrei Iancu, former Director of USPTO (Sept. 24, 2021).

intellectual property and to foster a national discourse that focuses on the incredible benefits of intellectual property.”¹²

In his brief time as director, Iancu implemented several substantive policy changes at the Office. Some of these changes were a result of his objectives that preceded his tenure, such as clarifying patent-eligibility under 35 U.S.C. § 101. Others were necessitated by the unforeseen COVID-19 pandemic. Several of Iancu’s changes have been the subject of much controversy. Not surprisingly, the most backlash has come as a response to those policies which could potentially affect the outcome of appeals or litigation. The controversy has come in the form of allegations that the former director exceeded his authority and even lawsuits. Regardless of one’s opinion on the merit of the policy changes, all can agree that his tenure was eventful.

II. POLICY CHANGES AT THE PATENT OFFICE

A. Claim Construction Standard

The interpretation of patent claim language is crucial to a patent owner, as a finding of infringement or invalidity can hinge upon it. Hence, the standard by which the claims are interpreted is also critical. Prior to Iancu’s tenure, the USPTO used the “broadest reasonable interpretation” standard to determine the meaning of the claim terminology in *inter partes* review and post grant review proceedings.¹³ The same standard was applied by the USPTO in patent examination.¹⁴ This standard applies to patent claims the broadest reasonable interpretation consistent with the specification.¹⁵ In other words, claim interpretation under this standard is not accomplished by reading the claims in a vacuum but by reading them “in light of the specification as it would be interpreted by one of ordinary skill in the art.”¹⁶ Thus, the broadest reasonable interpretation standard requires that definitions presented in the specification used to define words later used in the claims are to be considered.¹⁷ In contrast to this

¹² Interview with Andrei Iancu, *supra* note 11.

¹³ See 2019 Revised 101 Guidance, 83 Fed. Reg. 51340 (Oct. 11, 2018).

¹⁴ *Id.*

¹⁵ Manual of Patent Examining Procedure [MPEP] (9th ed. Rev. Oct. 2019) § 2111.

¹⁶ See *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004) (citing *In re Bond*, 910 F.2d 831, 833 (Fed Cir. 1990)).

¹⁷ See *In re Cortright*, 165 F.3d 1353, 1358 (Fed. Cir. 1999).

expansive analysis, a different standard was applied in Article III federal courts and the International Trade Commission proceedings in patent infringement litigation—the standard articulated in *Phillips v. AWH Corp.* Colloquially known as the *Phillips* standard, this method of claim construction applies to patent terms the *ordinary* and *customary* meaning of a claim term to a person of ordinary skill in the art in question at the time of the invention.¹⁸ Both the *Phillips* standard and the “broadest reasonable interpretation”, also known as the BRI standard, interpret claims from the view of a person of ordinary skill in the art; the difference is in the scope of interpretation.¹⁹

This discrepancy in claim interpretation between the district courts and the Patent Trial and Appeal Board (hereinafter “PTAB”) was more than semantics. Indeed, courts have explicitly held that the outcome of the case at hand hinges on the applicable claim construction standard.²⁰ Specifically, courts have said that the *Phillips* standard requires more “comprehensive scrutiny and principles” than the broadest reasonable interpretation standard.²¹ The difference in the standards has also had procedural ramifications.²² For example, the court in *Automated Packaging Sys., Inc. v. Free Flow Packaging Int’l., Inc.*, found that a failure to advance a particular claim construction at the PTAB does not preclude raising the same argument in a Markman claim construction because material differences exist between the *Phillips* standard and the broadest reasonable interpretation standard.²³

In 2018, Iancu changed the standard applied in PTAB proceedings to the *Phillips* standard applied in district court litigation.²⁴ According to the Patent Office, this was to promote

¹⁸ See *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313–14 (Fed. Cir. 2005).

¹⁹ See generally Kevin Greenleaf et al., *How Different Are the Broadest Reasonable Interpretation and Phillips Claim Construction Standards?*, INTELL. PROP. OWNER’S ASS’N, <https://ipo.org/wp-content/uploads/2018/10/BRI-v-Phillips-Final-1.pdf>, (last visited Feb. 8, 2023) (explaining the similarities and substantive differences between the “broadest reasonable interpretation” and the *Phillips* standard).

²⁰ *PPC Broadband, Inc. v. Corning Optical Comm’ns RF, LLC*, 815 F.3d 734, 740–42 (Fed. Cir. 2016).

²¹ *JDS Techs., Inc. v. Avigilon USA Corp.*, No. 15-10385, 2017 WL 4248855, at *6 (E.D. Mich. Jul. 25, 2017).

²² See *Automated Packaging Sys., Inc. v. Free Flow Packaging Int’l., Inc.*, No. 18-cv-00356, 2018 WL 3659014, at *3 (N.D. Cal. Aug. 2, 2018).

²³ See *id.*

²⁴ See Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board, 83 Fed. Reg.

“predictability and reliability” to the respective proceedings.²⁵ The Office noted that under the previous system, different results could apply in federal court and PTAB proceedings even while litigating the same patent claims.²⁶ Further justifying the transition to the *Phillips* standard, the Patent Office laid out illogical scenarios that could result from applying differing construction standards in federal courts and America Invents Act (hereinafter “AIA”) proceedings:

[H]aving AIA proceedings use the same claim construction standard that is applied in federal courts and ITC proceedings also addresses the concern that potential unfairness could result from using an arguably broader standard in AIA proceedings. According to some patent owners, the same claim construction standard should apply to both a validity (or patentability) determination and an infringement determination. Because the BRI standard potentially reads on a broader universe of prior art than does the *Phillips* standard, a patent claim could potentially be found unpatentable in an AIA proceeding on account of claim scope that the patent owner would not be able to assert in an infringement proceeding. For example, even if a competitor’s product would not be found to infringe a patent claim (under the *Phillips* standard) if it was sold after the patent’s effective filing date, the same product nevertheless could potentially constitute invalidating prior art (under the BRI standard) if publicly sold before the patent’s effective filing date.²⁷

Iancu also regards the change in claim construction standard as a method to carry out his goal of “making sure that we have an IP system that is well balanced, predictable and reliable.”²⁸ The claim construction standard change addresses the goal of predictability the most directly.²⁹ Now, the same standard is applied in PTAB and district court proceedings.³⁰ In the Patent Office’s own words, “[t]he scope of an issued patent should not depend on the happenstance of which court or governmental agency interprets it, as least as far as the objective rules go.”³¹

51340, 51341, 51359 (Oct. 11, 2018).

²⁵ Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board, 83 Fed. Reg. at 51345.

²⁶ *Id.* at 51347, 51348.

²⁷ *Id.* at 51342.

²⁸ Interview with Andrei Iancu, *supra* note 11.

²⁹ See Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board, *supra* note 24.

³⁰ *Id.*

³¹ *Id.*

But the change will likely have real consequences for attorneys litigating parallel district court and PTAB proceedings. The court in *Automated Packaging* held that a party could raise a new claim construction in a Markman hearing that differed from a construction previously advanced in the PTAB due to the substantive differences in the *Phillips* standard and the BRI standard.³² But with consistency in standards among the venues, the analysis behind *Automated Packaging*'s holding is apparently rendered moot. What this may mean for patent litigators is that claim construction in *inter partes* reviews could hold much water—or even be binding—in a subsequent district court case. And because parties could be held to these constructions in district court litigation, they may be inclined to invest more in developing a robust claim construction in an *inter partes* review proceeding. However, this could ultimately save parties from the additional legal costs associated with developing two differing constructions.

Perhaps because of these possibilities, the claim construction standard change has garnered criticism. Several arguments against the claim construction standard change were raised in the comments to the final rule—namely that the claim construction standard is a matter for Congress to decide, that the broadest reasonable interpretation standard is appropriate for the same reasons it was initially adopted, that the change is arbitrary and capricious, and that the Office did not provide adequate notice.³³

Addressing the concern that Congress is the appropriate authority for determining the claim construction standard, the Office cited the endorsement of the Supreme Court in *Cuozzo*. In that case, the Court stated that claim construction for AIA proceedings is “a question that Congress left to the particular expertise of the Patent Office.”³⁴ But although the Office cited *Cuozzo* favorably, in the same case it took the position that “the history, congressional intent, amendments, and statutory framework of the AIA support the BRI in AIA proceedings.”³⁵ One

³² *Automated Packaging Systems*, *supra* note 22, at 3–4.

³³ See *Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board*, *supra* note 24, at 51346.

³⁴ *Id.* (citing *Cuozzo Speed Technologies, LLC v. Lee*, 579 U.S. 261, 283 (2016)).

³⁵ *Id.*

adverse comment noted as much.³⁶ To this argument the Patent Office responded that the Supreme Court rejected such arguments.

[T]he Supreme Court expressly rejected the argument that the history, congressional intent, amendments, and statutory framework of the AIA required the use of BRI in AIA proceedings: “Finally, neither the statutory language, its purpose, or its history suggest that Congress considered what standard the agency should apply when reviewing a patent claim in *inter partes* review.” The Court further held that such decisions were left to the sound discretion of the Office.³⁷

The Court also noted the significance of Congress not expressly setting forth a claim construction standard, as well as a lack of statutory language or legislative history suggesting that Congress considered the proper standard to be applied in *inter partes* reviews.³⁸ The Office then cited what it considered to be affirmative delegations:

Notably, the statutory provision set forth in 35 U.S.C. § 316(a)(4) grants the Office authority to issue “regulations . . . establishing and governing *inter partes* review under this chapter and the relationship of such review to other proceedings under this title.” For PGR and CBM proceedings, 35 U.S.C. § 326(a)(4) contains a similar provision. Furthermore, under 35 U.S.C. § 316(a)(2) and § 326(a)(2), the Office must prescribe regulations “setting forth the standards for the showing of sufficient grounds to institute a review.”³⁹

The claim construction standard modification may have resulted in consistency between PTAB litigation and district court litigation, but the change necessarily creates inconsistency within the Patent Office. The broadest reasonable interpretation is applied during the examination of patents, while claims are now construed more narrowly in a patent and trademark challenge.⁴⁰ The seemingly logical solution would be to apply a common standard across the board—during examination, PTAB proceedings, and litigation in the courts. However, a justification for applying the arguably broader standard in examination is

³⁶ See Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board, *supra* note 24, at 51346.

³⁷ *Id.*

³⁸ See *id.*

³⁹ *Id.*

⁴⁰ See *id.* at 51340, 51341.

grounded in public policy: “Giving claims their broadest reasonable construction serves the public interest by reducing the possibility that claims, finally allowed, will be given broader scope than is justified.”⁴¹

Furthermore, applying a narrower standard during examination could add to the existing problem of issuing patents that are later deemed invalid. The broadest reasonable interpretation standard, however, allows an examiner to interpret the language of claims broadly and read on potentially more prior art than they would if interpreting claims according to the *Phillips* standard.⁴² Thus, there is more opportunity for anticipation and obviousness rejections with the existing standard. Implementing a standard that precludes more patents from serving as a basis for a Section 102 or 103 rejection could result in more low-quality patents.

B. Fintiv Discretionary Denials

The Standard Operating Procedure of the PTAB authorizes the USPTO Director to designate Board decisions as “informative” or “precedential” to promote consistency in Board decisions.⁴³ A decision deemed “precedential” establishes binding authority on the Board and concerns important policy and procedural matters.⁴⁴ An “informative” decision, on the other hand, provides guidance to the board regarding regularly occurring issues.⁴⁵ A particularly controversial Iancu-era precedential designation was that of *Apple Inc. v. Fintiv, Inc.*⁴⁶ The case specifies six factors to determine whether to exercise discretion to deny *inter partes* review petitions under *NHK Spring Co. Ltd. v. Intrix-Plex Technologies, Inc.* in the presence of parallel litigation.⁴⁷ These “NHK-Fintiv factors” include (1) whether the court granted a

⁴¹ *In re Am. Acad. Of Sci. Tech Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004) (internal quotation marks omitted) (citing *In re Yamamoto*, 740 F.2d 1569, 1571 (Fed. Cir. 1984)).

⁴² *Claim Interpretation; Broadest Reasonable Interpretation*, U.S. PAT. & TRADEMARK OFF., <https://uspto.gov/web/offices/pac/mpep/s2111.html> (last visited Feb. 16, 2023, 9:35:19 PM).

⁴³ Standard Operating Procedure 2 (Revision 10). PAT. TRAIL & APPEAL BD., <https://uspto.gov/sites/default/files/documents/SOP2%20R10%20FINAL.pdf>

⁴⁴ *Id.*

⁴⁵ *Id.*

⁴⁶ See *Apple Inc. v. Fintiv, Inc.*, No. IPR2020-00019, 2020 WL 2126495 (P.T.A.B. Mar. 20, 2020) (discussing the factors in determining whether to exercise discretionary institution or denial for *inter partes* review petitions).

⁴⁷ *Id.*

stay or evidence exists that one may be granted if a proceeding is instituted; (2) proximity of the court's trial date to the Board's projected statutory deadline for a final written decision; (3) investment in the parallel proceeding by the court and the parties; (4) overlap between issues raised in the petition and in the parallel proceeding; (5) whether the petitioner and the defendant in the parallel proceeding are the same party; and (6) other circumstances that impact the Board's exercise of discretion, including the merits.⁴⁸ The factors are meant to incorporate "a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review."⁴⁹ Since the precedential designation, the factors have been increasingly used to deny petitions that challenge claims that are subject to litigation in other venues.⁵⁰ In 2020, the PTAB discretionarily denied 228 petitions for *inter partes* reviews without considering the merits—a record increase.⁵¹

The precedential designation of Fintiv has already resulted in a suit against Iancu from the largest technology companies in the world.⁵² The plaintiffs raised a number of arguments against the adoption of the Fintiv rule, including that the director exceeded his statutory authority, that the enumerated factors are arbitrary and capricious because they result in unpredictable outcomes (and thus are contrary to the AIA), and that they are invalid because they did not undergo notice-and-comment rulemaking.⁵³ Iancu countered these arguments with a motion to dismiss, arguing that the plaintiffs lack standing and cannot establish a concrete injury, or that their injuries would not be redressed by the prospective relief.⁵⁴ Furthermore, he argued that the case cannot be heard due to a lack of subject-matter jurisdiction.⁵⁵ Ultimately, the court agreed that the claims are

⁴⁸ *Apple Inc.*, 2020 WL 2126495, at *6.

⁴⁹ *Id.*

⁵⁰ See Michael Oblon, *Apple v. Iancu: Oral Argument on Motion to Dismiss and Plaintiff Summary Judgment Motion*, JONES DAY PTAB LITIGATION BLOG (Mar. 16, 2021), <https://ptablitigationblog.com/apple-v-iancu-oral-argument-on-mtd-and-plaintiff-sj-motion>.

⁵¹ See *PTAB Discretionary Denials Up 60% in 2020: Fueled Entirely by 314(a) Denials*, UNIFIED PATENTS (Jan. 5, 2021) <https://unifiedpatents.com/insights/2020-ptab-discretionary-denials-report>.

⁵² *Apple Inc. v. Iancu*, No. 5:20-cv-06128-EJD, 2021 WL 5232241, at *1 (N.D. Cal. Nov. 10, 2021).

⁵³ *Id.* at *3.

⁵⁴ *Id.* at *3–*4.

⁵⁵ *Id.*

not justiciable.⁵⁶ Specifically, the court concluded that it was precluded by *Cuozzo* to analyze “questions that are closely tied to the application and interpretation of statutes related to [the director’s] decision to initiate *inter partes* review.”⁵⁷

While the dismissal of the case allows the PTAB to continue to apply its discretion in denying petitions, the discretionary denials may face other challenges in the post-Iancu era. Senators Patrick Leahy and John Cornyn have already introduced a bill that would reduce PTAB judges’ discretion to deny reviews.⁵⁸ Leahy, who a decade ago co-authored the AIA, expressed some concerns that the Iancu-era discretionary denials promoted “poor-quality patents” saying:

Fundamentally, we need to address why the PTO issues invalid patents in the first place. But when these invalid patents have already been issued, they need to be addressed on the back end. I am proud of the legacy we built ten years ago with the Leahy-Smith Act. And I’m equally proud to introduce the Restoring the America Invents Act to protect the gains made by the Leahy-Smith Act and ensure that our patent system reinforces high-quality patents while ensuring that poor-quality patents don’t disrupt the American economy. I welcome working with Senator Cornyn to make sure that we strike a balance that will help start-ups, small businesses, and American manufacturers thrive.⁵⁹

The proposed bill would drastically limit the director’s discretion to deny petitions. The bill would modify the nature of the requirements of a petition from ones that are *necessary* for the director to authorize an *inter partes* review, to ones that, if satisfied, *mandate* the director to authorize such a review, “[s]ubject only to the discretion of the Director under section 325(d)(4).”⁶⁰ Furthermore, the Bill would expand the scope of *inter partes* review to allow petitioners to challenge patents on the basis of statutory or obviousness-type double patenting, and

⁵⁶ *Apple Inc.*, 2021 WL 5232241, at *3–*4.

⁵⁷ *Id.* (citing *Cuozzo Speed Technologies, LLC v. Lee*, 579 U.S. 261, 275 (2016)).

⁵⁸ David Linden et al., *Legislation: Restoring the America Invents Act*, JONES DAY PTAB LITIG. BLOG (Oct. 4, 2021), <https://ptablitigationblog.com/legislation-restoring-the-america-invents-act>.

⁵⁹ Leahy co-introduced a bill aiming to reform the PTAB review process, called the Reform America Invents Act. See Blake Brittain, *Senators Leahy, Cornyn Introduce Bill to ‘Restore’ PTAB Review Process*, REUTERS (Sept. 29, 2021), <https://reuters.com/legal/transactional/senators-leahy-cornyn-introduce-bill-restore-ptab-review-process-2021-09-29>.

⁶⁰ Restoring the America Invents Act, S. 2891, 117th Cong. § 3(B)(i) (2021).

petitioners could rely on admissions in patent specifications, drawings, or claims, as well as statutory or obviousness-type double patenting.⁶¹ Currently, patentability can only be challenged on grounds “raised under section 102 or 103” and only patents and printed publications are admissible prior art.⁶²

Like the policy it seeks to modify, the bill has proven to be controversial. The bill is popular among some, such as the United for Patent Reform, a group that advocates for solutions to patent system abuse and boasts members such as Amazon, Google, and Ford.⁶³ Others oppose the bill from a standpoint of equity, contending that the companies that would benefit from the proposals already hold too much power over the patent system.⁶⁴ Still others consider the bill “a wish list of patent-killers seeking to cancel patent rights via *inter partes* review.”⁶⁵

C. Fast-Track Appeals Pilot Program

To expedite the appeals process for qualifying applicants, Director Iancu’s Patent Office launched the Fast-Track Appeals Pilot Program.⁶⁶ Effective since July 2, 2020, The program allows appellants to advance their *ex parte* appeals ahead of appeals that would otherwise be heard before theirs, upon filing a petition and paying a fee.⁶⁷ An *ex parte* appeal is a process by which an applicant can seek review of a second or final rejection of a patent application at the PTAB.⁶⁸ Applicants have had the opportunity to obtain a final disposition on a patent application within twelve months through the Track One prioritized examination program since 2011, but the benefit of this program does not extend to appeals, as does the Fast-Track Appeals Pilot Program.⁶⁹ As an objective of the Pilot Program, the PTAB

⁶¹ See S. 2891, 117th Cong. § 3(A)(ii); 35 U.S.C. § 311(b).

⁶² 35 U.S.C. § 311(b).

⁶³ Linden et al., *supra* note 58.

⁶⁴ *Id.*

⁶⁵ Dennis Crouch, *Restoring the America Invents Act*, PATENTLYO (Sept. 29, 2021), <https://patentlyo.com/patent/2021/09/restoring-america-invents.html>.

⁶⁶ Fast Track Appeals Pilot Program, 85 Fed. Reg. 39888-01 (U.S. Dep’t of Commerce, July 2, 2020).

⁶⁷ *Id.*

⁶⁸ *What Are Ex Parte Appeals?*, U. S. PAT. & TRADEMARK OFF. (Aug. 13, 2021), <https://uspto.gov/patents/patent-trial-and-appeal-board/appeals/what-are-ex-parte-appeals>.

⁶⁹ Changes To Implement the Prioritized Examination Track (Track I) of the Enhanced Examination Timing Control Procedures Under the Leahy-Smith America Invents Act, 76 Fed. Reg. 59050, 59051 (Sept. 23, 2011).

aspires to issue a decision within six months from the granting of the petition and the entering the program of the appeal.⁷⁰ This objective would be a drastic improvement from the average appeal pendency of roughly 15 months.⁷¹ The Patent Office claims that the program will bolster innovation: “[F]ast-track decisions on ex parte appeals under this Pilot Program may hasten patentability determinations on new inventions and the pace at which products or services embodying these inventions are brought to the marketplace, thus spurring follow-on innovation, economic growth, and job creation.”⁷² The program is available for original nonprovisional utility, design, or plant applications and is scheduled to run until July 2, 2022.⁷³

D. Motion to Amend Pilot Program

As a result of the 2012 America Invents Act, a patent owner can choose to file a motion to amend its patent when that patent is challenged in a post-grant proceeding.⁷⁴ For example, a motion may be filed in lieu of a Patent Owner Response following an *inter partes* review institution.⁷⁵ Such a petition is contingent upon the unpatentability of the originally challenged claims.⁷⁶ Alternatively, a patent owner can file a noncontingent motion to amend in conjunction with its Patent Owner Response.⁷⁷ This filing allows the patent owner to argue that not only are the proposed amended claims patentable, but that the originally challenged claims are patentable as well.⁷⁸

The Motion to Amend Pilot Program expands a patent owner's options during PTAB litigation. Under the program, a patent owner can request preliminary guidance from the PTAB upon filing a motion to amend.⁷⁹ Furthermore, the program authorizes

⁷⁰ Fast-Track Appeals Pilot Program, 85 Fed. Reg. 39,888 (July 2, 2020).

⁷¹ *Id.*

⁷² *Id.*

⁷³ *Id.* at 39,890.

⁷⁴ Bryan D. Beel, *Impact of the PTAB's Motion to Amend Pilot Program*, LIFE SCI. LEGAL REP. (Jan. 5, 2021), <https://lifesciencelegalreport.com/2021/01/impact-of-mta-pilot-program> (citing 35 U.S.C. § 316(d)).

⁷⁵ *Id.*

⁷⁶ Notice Regarding a New Pilot Program Concerning Motion To Amend Practice and Procedures in Trial Proceedings Under the America Invents Act Before the Patent Trial and Appeal Board, 84 Fed. Reg. 9,498 (March, 15, 2019),

⁷⁷ *See id.*

⁷⁸ *See id.*

⁷⁹ *Id.*

patent owners to file revised motions.⁸⁰ “A revised MTA includes one or more new proposed substitute claims in place of previously presented substitute claims to address issues identified in the preliminary guidance and/or the petitioner’s opposition.”⁸¹ A patent owner can do so whether it has requested preliminary guidance or not.⁸² The guidance is non-binding and is reserved to the limitations added in the motion to amend, and “will not address the patentability of the originally challenged claims.”⁸³

In anticipation of the Pilot Program, many were concerned about the practical effects on PTAB proceedings.

[C]ommenters were concerned that the times between due dates for filing papers were too short, and would be overly burdensome and increase costs to all parties. Commenters noted that the proposed short time periods between due dates would make it difficult to adequately draft and respond to papers. For example, commenters had concerns that patent owners would not have enough time to draft meaningful claim amendments at the start of the process, and petitioners would not have enough time after an MTA to develop reasons for unpatentability of proposed substitute claims, including by conducting prior art searches. Commenters were also concerned that the short time periods between due dates would hinder the parties’ ability to discover and gather evidence. A number of commenters suggested modifications to the timeline in the proposal.⁸⁴

The Office responded to these concerns by extending the due date for the patent owner’s motion to amend and the due date for petitioner’s corresponding opposition to the motion to amend to twelve weeks each.⁸⁵

The program began on March 15, 2019 and has already had a significant impact on PTAB practice. Prior to the program, patent owners filed motions to amend in only 11% of AIA trials, including *inter partes* review proceedings and post-grant review proceedings.⁸⁶ Of the motions that were ultimately decided by the PTAB, 86% were denied, and 14% were either granted or granted in part.⁸⁷ The vast majority of denied motions were denied for

⁸⁰ See Beel, *supra* note 74.

⁸¹ 84 Fed. Reg. at 9,499.

⁸² *Id.* at 9,500.

⁸³ *Id.*

⁸⁴ *Id.* at 9,502.

⁸⁵ *Id.* at 9,500.

⁸⁶ *Id.* at 9,497.

⁸⁷ Tyler R. Bowen & Katherine Nesler, *The Impact of the PTAB’s Motion to Amend Pilot Program*, PERKINS COIE, Dec. 2020, at 5, <https://perkinscoie.com/>

statutory reasons, while a small portion were denied for procedural reasons.⁸⁸ Following the pilot program, patent owners are actually filing MTAs slightly less frequently than before the program, with such filings in only 9% of trials.⁸⁹ However, a patent owner is currently more likely to succeed with their motion; the success rate under the Pilot Program has risen from the previous 14% to 31%.⁹⁰

E. 2019 Revised Patent Subject Matter Eligibility Guidance

1. Background

Perhaps the most momentous policy implementation under Director Iancu was the issuance of guidance concerning patent-eligible subject matter. The guidance followed a period in which attempts to interpret the statute defining such subject matter had resulted in much confusion and controversy. 35 U.S.C. § 101 provides that “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 therefor”⁹¹ The U.S. Supreme Court has articulated a number of exceptions to the facially broad language of Section 101. In particular, the Court has held that abstract ideas, laws of nature, and natural phenomena are not eligible for patents.⁹² The Court has thus purported to clarify the broad language of 101 with yet more amorphous—albeit restrictive—language. The result has been much confusion among patent owners, attorneys, and even courts as to what is truly patentable.

A particularly influential case defining patent eligible subject matter was *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*⁹³ *Mayo* outlined an analytical method to determine patentability.⁹⁴ The court sought to draw the boundary line of patentability at a place which would not monopolize abstract ideas in a way that would impede innovation, at the

images/content/2/3/239781/2020-MTA-Whitepaper-v5.pdf.

⁸⁸ Bowen & Nesler, *supra* note 87.

⁸⁹ *Id.*

⁹⁰ *Id.*

⁹¹ 35 U.S.C. § 101.

⁹² *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 589 (2013) (quoting *Mayo Collaborative Servs. v. Prometheus Lab’s., Inc.*, 566 U.S. 66, 70 (2012)) (internal quotation marks omitted).

⁹³ *See Mayo*, 566 U.S.

⁹⁴ *See id.* at 72–77.

same time taking care to not interpret abstract ideas so broad as to “eviscerate patent law.”⁹⁵ The Court went on to apply an analysis to a medical process:

The case before us lies at the intersection of these basic principles. It concerns patent claims covering processes that help doctors who use thiopurine drugs to treat patients with autoimmune diseases determine whether a given dosage level is too low or too high. The claims purport to apply natural laws describing the relationships between the concentration in the blood of certain thiopurine metabolites and the likelihood that the drug dosage will be ineffective or induce harmful side effects. We must determine whether the claimed processes have transformed these unpatentable natural laws into patent eligible applications of those laws.⁹⁶

The Court began by emphasizing the importance of focusing on the substance of the patent claims, and not simply on the “draftsman’s art.”⁹⁷ In particular, the Court insisted that an inventive concept must be present to ensure that a natural law is not being monopolized.⁹⁸

Beginning its analysis, the Court determined that the patent claims in question are directed to natural relations.⁹⁹ Thereafter, the Court analyzed whether the patent claims sufficiently applied these natural laws as to render them patent-eligible.¹⁰⁰ In concluding that the claims failed to do so, the Court determined that the steps recited in the claim are not sufficient to transform the nature of the claim from a natural law to a patent-eligible claim sufficiently integrated.¹⁰¹ The Court then elaborated on what *was* enough to transform the nature of the claim, through a discussion of two prior Supreme Court cases with contrary holdings.¹⁰² In *Diehr*, the Court upheld as patent eligible a process that utilized a known mathematical equation in conjunction with a press in the molding of rubber products.¹⁰³ The process was not anticipated or conventional, but rather “transformed the process into an inventive application of the

⁹⁵ *Mayo*, 566 U.S. at 71.

⁹⁶ *Id.* at 72.

⁹⁷ *Id.* (quoting *Parker v. Flook*, 437 U.S. 584, 593 (1978)).

⁹⁸ *Id.* at 77.

⁹⁹ *Id.*

¹⁰⁰ *See id.* at 79.

¹⁰¹ *See id.* at 79–80.

¹⁰² *See id.* at 80–82.

¹⁰³ *See id.* at 80.

formula.”¹⁰⁴ *Flook*, however, held that a method for adjusting “alarm limits” in the catalytic conversion of hydrocarbons was not patent eligible.¹⁰⁵ Distinguishing the case from *Diehr*, the Court held that the claims failed to include an “inventive concept,” and that the methods of implementation were well known.¹⁰⁶ Thus, *Mayo* holds that claims directed to an abstract idea may still find eligibility when they sufficiently integrate themselves into a practical application.

Two years after the *Mayo* decision, the Supreme Court decided another case that sought to elaborate on the framework for deciding the eligibility of a patent claim. *Alice Corp. v. CLS Bank Int’l* involved processes that ensured that each party to a financial obligation had sufficient funds to fulfill their respective obligations.¹⁰⁷ The claims in question included method claims specifying a method for exchanging obligations, claims to a computer system to carry out the method, and claims directed to a computer-readable medium with implemented code to perform the method.¹⁰⁸ The computer system and computer readable medium claims expressly recited the use of a computer.¹⁰⁹ Heavily citing *Mayo*, the Court concluded that intermediate settlement was an abstract idea not covered by Section 101, and that the use of a generic computer was insufficient to transform that abstract idea into a patentable invention.¹¹⁰

The result of these cases was the colloquial *Alice/Mayo* standard of eligibility determination. The first step in the two-step process requires courts to “determine whether the claims at issue are directed to a patent-ineligible concept.”¹¹¹ Upon a showing that the claims are directed to a patent-ineligible concept, the claims may nonetheless find eligibility through further analysis. The second step requires courts to determine whether the claim elements, either individually or as an ordered combination, contain an inventive concept that transforms the nature of the claim into a patent-eligible application.¹¹²

¹⁰⁴ *Mayo*, 566 U.S. at 81.

¹⁰⁵ *See id.*

¹⁰⁶ *Id.* at 82 (citing *Parker v. Flook*, 437 U.S. 584, 594 (1978)).

¹⁰⁷ *See Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 212 (2014).

¹⁰⁸ *Id.* at 214.

¹⁰⁹ *Id.*

¹¹⁰ *Id.* at 217–27.

¹¹¹ *Id.* at 217.

¹¹² *Id.* at 221 (quoting *Mayo Collaborative Serv’s v. Prometheus Laboratories, Inc.*, 566 U.S. 66, 72 (2012)).

Even with the averred clarification of the landmark *Alice* and *Mayo* decisions, uncertainty surrounding patent eligibility continued, particularly surrounding the “abstract ideas” exception to patent eligible subject matter. Several recent cases have shown a lack of consensus on what is patentable. For example, courts have claimed to distinguish between patent ineligible and patent eligible subject matter by whether the claims are directed to an abstract idea implemented on a generic computer, as opposed to being directed to an improvement to computer *functionality*.¹¹³ But the functionality of a *computer* is just that—to compute—and any useful computer program improves computational ability, even if implemented on a generic computer. However, the courts have relied on this distinction to reject many software implemented and computational algorithmic improvements, both before and after the *Mayo* and *Alice* decisions.¹¹⁴

Even for claims directed to the improvement of hardware applications, the courts’ application has been inconsistent. For example, *TLI Communications* involved patent claims classifying and storing digital images in an organized manner using a telephone unit. The court held that the claims were directed to an abstract idea and failed to add an inventive concept.¹¹⁵ By contrast, the court in *Visual Memory LLC v. NVIDIA Corp.* found as patent eligible claims requiring a memory system “having one or more programmable operational characteristics, said characteristics being defined through configuration by said computer based on the type of said processor,” and “determin[ing] a type of data stored by said cache.”¹¹⁶ The court distinguished these claims from the claims at issue in *TLI Communications* because, “[a]lthough the claims recited the use of a phone and a server to carry out the claimed method, the claims did not ‘describe a new telephone, a new server, or a new physical combination of the two’ and were ‘not directed to a specific improvement to computer *functionality*.’”¹¹⁷ The court seemed to

¹¹³ See *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (emphasis added).

¹¹⁴ See *OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1362–63 (Fed. Cir. 2015) (holding that a computer-implemented method of price optimization is not patent eligible). *But cf. Enfish*, 822 F.3d at 1335 (holding that software-directed claims are not inherently abstract).

¹¹⁵ See *TLI Commc’ns, LLC v. AV Auto, LLC*, 823 F.3d 607, 613 (2016).

¹¹⁶ *Visual Memory, LLC v. NVIDIA Corp.*, 867 F.3d 1253, 1257 (2017) (citing ‘740 patent col. 6 ll. 29-38).

¹¹⁷ *Id.* at 1260 (citing *TLI Commc’ns*, 823 F.3d at 613).

imply that a new or improved physical component was necessary to render claims patent eligible. However, the United States Court of Appeals for the Federal Circuit has held that “systems and methods that use inertial sensors in a non-conventional manner to reduce errors in measuring the relative position and orientation of a moving object on a moving reference frame” are patent eligible.¹¹⁸ These claims never recited new inertial sensors.

The courts’ confusion has not gone unnoticed. Several notable names in the intellectual property sphere have called for clarity surrounding Section 101. Judges have even undertaken the writing of several concurrences and dissents to underscore the need for clarity.¹¹⁹ For example, Judge Richard Linn of the Court of Appeals for the Federal Circuit noted:

The problem with [the Alice/Mayo standard], however, is that it is indeterminate and often leads to arbitrary results. Moreover, if applied in a legal vacuum divorced from its genesis and treated differently from the other two exceptions, it can strike down claims covering meritorious inventions not because they attempt to appropriate a basic building block of scientific or technological work, but simply because they seemingly fail the Supreme Court’s test.¹²⁰

Differing solutions have been proposed, including a modified Supreme Court holding and congressional legislation.¹²¹ The abolition of Section 101 altogether has been suggested.¹²² What’s more, the suggestion came from a former Patent Office director. David Kappos claims “[i]t’s time to abolish Section 101, and the reason I say that is that Europe doesn’t have 101 and Asia doesn’t have 101 and they seem to be doing just fine in

¹¹⁸ *Thales Visionix Inc. v. United States*, 850 F.3d 1343, 1348–49 (Fed. Cir. 2017).

¹¹⁹ See, e.g., *Smart Sys. Innovations, LLC v. Chicago Transit Auth.*, 873 F.3d 1364, 1377 (Fed. Cir. 2017) (Linn, J., dissenting in part and concurring in part); *Berkheimer v. HP Inc.*, 890 F.3d 1369, 1376 (Fed. Cir. 2018) (Lourie, J., joined by Newman, J., concurring in denial of rehearing *en banc*).

¹²⁰ *Smart Sys. Innovations*, 873 F.3d at 1364, 1377 (Linn, J., dissenting in part and concurring in part).

¹²¹ *Burkenheimer*, 890 F.3d at 1374–76 (Lourie, J., joined by Newman, J., concurring in denial of rehearing *en banc*) (“However, I believe the law needs clarification by higher authority, perhaps by Congress . . .”) (“Section 101 does not need a two-step analysis to determine whether an idea is abstract.”).

¹²² Ryan Davis, *Kappos Calls for Abolition of Section 101 of Patent Act*, LAW360 (Apr. 12, 2016), <http://law360.com/articles/783604/kappos-calls-for-abolition-of-section-101-of-patent-act>.

constraining patent-eligible subject matter.”¹²³

Iancu himself has been publicly outspoken about the need for Section 101 reform. Indeed, Director Iancu first mentioned Section 101 patentable subject matter analysis when I asked him about his goals when he was first appointed as the Director of the USPTO. At the Intellectual Property Owners Association 46th annual meeting, Director Iancu called for Congress to move forward with hearings or legislation to address the Section 101 uncertainty and even offered assistance from the USPTO.¹²⁴ Then, Iancu highlighted the desperation at the Patent Office, stating, “In the meantime, the USPTO cannot wait. We have thousands of examiners who struggle with these issues on a daily basis . . . [a]nd so do patent applicants, patent owners, and the public. Whether through legislation or otherwise, there is a growing consensus that the issue must be promptly addressed.”¹²⁵ Thereafter, he elaborated on his frustration with the issue:

Let me put this in my own words: How can a claim be novel enough to pass 102 and nonobvious enough to pass 103, yet lack an “inventive concept” and therefore fail 101? Or, how can a claim be concrete enough so that one of skill in the art can make it without undue experimentation, and pass 112, yet abstract enough to fail 101? How can something concrete be abstract?¹²⁶

Finally, Director Iancu suggested that the USPTO was contemplating revised guidance to clarify Section 101 and foreshadowed its substance.¹²⁷

The prospect of guidance coming from the Patent Office generated much commentary in the IP community. Many contended that proposed guidance would provide applicants “a clearer and more predictable picture of how to overcome or avoid 101 rejections” and expressed excitement that the USPTO was taking much-needed initiative to clarify the issue.¹²⁸ Others took

¹²³ Steven Lundberg, *David Kappos Calls for Abolition of Section 101*, NAT. L. REV. (Apr. 14, 2016), <https://natlawreview.com/article/dave-kappos-calls-abolition-section-101>.

¹²⁴ See *Remarks by Director Iancu at the Intellectual Property Owners Association 46th Annual Meeting*, U.S. PAT. & TRADEMARK OFF. (Sept. 24, 2018), <https://uspto.gov/about-us/news-updates/remarks-director-iancu-intellectual-property-owners-46th-annual-meeting>.

¹²⁵ *Id.*

¹²⁶ *Id.*

¹²⁷ *Id.*

¹²⁸ Michael K. Henry, *Clarifying Section 101: USPTO Director Andrei Iancu Proposes New Guidance*, HENRY PATENT LAW FIRM (Oct. 18, 2018), <https://henry.law/blog/andrei-iancu-proposed-guidance-section-101>.

a far different tone, describing the director's marks as "concerning" and asserting that the guidance as he presented it would be contrary to the Supreme Court decision in *Mayo*, which stated that "one must do more than simply state the law of nature while adding the words 'apply it.'"¹²⁹

Iancu's proposed guidance gets it wrong because it describes the inquiry backwards. Iancu said "it does not matter if the 'integration' steps are arguably 'conventional'; as long as the integration is into a practical application, then the 101 analysis is concluded." That's the opposite of what the Court has held. Instead, the Court has directed the PTO to decide if the claim was directed to an abstract idea, and if it was, to see if the other aspects of the claim were well-understood, routine, and conventional.¹³⁰

2. Issuance of Guidance

In 2019, Iancu issued guidance to clarify Section 101.¹³¹ The guidance sought to overcome a paradox—clarify a body of court cases with some arguably inconsistent holdings without the authority to overturn any decision. Nonetheless, the 2019 guidance claimed to "extract[] and synthesize[] key concepts identified by the courts."¹³² The guidance was prefaced with a summary of the impact on the Patent Office:

Among other things, it has become difficult in some cases for inventors, businesses, and other patent stakeholders to reliably and predictably determine what subject matter is patent-eligible. The legal uncertainty surrounding Section 101 poses unique challenges for the USPTO, which must ensure that its more than 8,500 patent examiners and administrative patent judges apply the *Alice/Mayo* test in a manner that produces reasonably consistent and predictable results across applications, art units and technology fields.¹³³

The Revised Guidance demonstrated deference to patent applicants and limited the means by which examiners could reject patent claims. Specifically, the 2019 Guidance limited the judicial exception of "abstract ideas" to distinct, enumerated

¹²⁹ Josh Landau, *Getting the Future Backwards: Iancu's Comments on § 101 at IPO*, PAT. PROGRESS (Sept. 24, 2018), <https://patentprogress.org/2018/09/24/getting-the-future-backwards-iancus-101-comments-at-ipo> (citing *Mayo*, 566 U.S. at 72).

¹³⁰ *Id.*

¹³¹ 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019).

¹³² *Id.* at 52.

¹³³ *Id.* at 50.

items—mathematical concepts, certain methods of organizing human activity, and mental processes.¹³⁴ The 2019 guidance also relaxed the previous standard under which an abstract idea may be sufficiently integrated into a practical application as to be rendered eligible, thereby further restricting how an examiner could reject claims.¹³⁵

3. Response

The Office accepted comments from the public following the 2019 guidance.¹³⁶ Generally, these comments applauded the effort to clarify Section 101. For example, the Biotechnology Innovation Organization (BIO) wrote that the Revised 101 Guidance would “improve prosecution efficiency because examiners and applicants will be able to identify specific areas of subject matter eligibility concern and address them with particularity.”¹³⁷ However, BIO went on to urge the USPTO to clarify whether the specific limitations of subject matter eligibility outlined in Guidance applies to claims believed to recite a law of nature or natural phenomenon.¹³⁸ Similarly, IBM commended the Office for taking action in the uncertain area of subject-matter eligibility but proposed an enumerated list of changes to the Revised 101 Guidance for more clarity and precision.¹³⁹ For example, IBM recommended that the Office define what is meant by “technological environment” and “field of use” in the context of the language, “generally linking . . . to a particular technological environment or field of use.”¹⁴⁰ According to IBM, *every* claim element limits the claim to a particular environment and a particular field in some sense.¹⁴¹

¹³⁴ 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. at 52–53.

¹³⁵ *Id.* at 56–57.

¹³⁶ *Id.* at 50.

¹³⁷ Letter from Hans Sauer, Vice President and Deputy General Counsel for Intellectual Property, Biotechnology Innovation Organization to The Honorable Andrei Iancu, Director of the U.S. Patent and Trademark Office (Mar. 8, 2019) (available online at https://www.bio.org/sites/default/files/2020-09/eligibility2019comments_e_bio_2019mar08.pdf) (BIO is a principal trade association consisting largely of small and mid-sized biotechnology companies).

¹³⁸ *Id.*

¹³⁹ IBM Corp., Comments on the 2019 Revised Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 2019) (available at <https://law360.com/articles/1418531>).

¹⁴⁰ *Id.*

¹⁴¹ *Id.*

The issue of patent eligibility is still generating much controversy following the 2019 Revised 101 Guidance. In October 2021, the USPTO again sought comments on patent eligibility, this time concerning its effect on innovation.¹⁴² The responses were varied, with a notable difference in opinion among industry sectors. Medical and life sciences groups generally expressed contempt about the current state of the law. Johnson & Johnson cited the drawback in innovation incentive:

Unfortunately, the current state of patent eligibility law discourages investment in these technologies because they all, to some extent, relate to or rely upon “abstract ideas”, “laws of nature”, or “natural phenomenon.” The current state of patent eligibility law discourages investment and research and development in these areas because it is impossible to predict, with any degree of certainty, whether the inventions resulting from this research will be deemed patent eligible. As a result, business leaders face the following, very real, question: do you want to invest hundreds of millions of dollars, and a decade or more of time, into a technology that you may never be able to protect?¹⁴³

This sentiment is in stark contrast to that of technology conglomerates. The Internet Association, which boasts members such as Google and Amazon, expressed pleasure with the state of the law.¹⁴⁴ “*Alice* and its progeny have improved patent litigation by reducing the costs of defending a suit against ineligible claims. Often, defendants can assert their patent ineligibility defense at the pleadings stage—typically a Rule 12 motion.”¹⁴⁵ The Internet Association also noted that no discernable impact on research and development had resulted from the state of the law.¹⁴⁶

This discrepancy along industry lines is not surprising considering the nature of the respective industries. Life science companies often favor a patent system in which they can invalidate patents as a plaintiff. For example, a large pharmaceutical company may expend “hundreds of millions of

¹⁴² U.S. PAT. & TRADEMARK OFF., Pat. Eligibility Guidance Update (Oct. 2019).

¹⁴³ Johnson and Johnson, Comments on the Pat. Eligibility Guidance Update, 84 Fed. Reg. 50 (Oct. 2019) (available at <https://law360.com/articles/1418531>).

¹⁴⁴ Internet Assoc., Comments on the Pat. Eligibility Guidance Update, 84 Fed. Reg. 50 (Oct. 2019) (available at <https://law360.com/articles/1418531>).

¹⁴⁵ Bryan K. Wheelock, *Patent Eligibility Can be Determined on the Pleadings, Provided Claim Construction is Not at Issue*, HARNESS IP (Aug. 16, 2019), <https://harnessip.com/blog/2019/08/16/patent-eligibility-can-be-determined-on-the-pleadings-provided-claim-construction-is-not-at-issue> (last visited Feb. 22, 2023).

¹⁴⁶ Internet Assoc., *supra* note 144.

dollars, and a decade or more of time”¹⁴⁷ in developing the formula for a drug that it seeks to derive substantial profits from. In due course the company will obtain a patent on the formula. When generic companies inevitably copy this formula, the larger pharmaceutical company will assert their patent against the infringing generic. Thus, these companies that have spent millions developing the technology favor a system in which their patents can be upheld with certainty and effectively asserted against infringers. By contrast, tech companies are often on the receiving end of infringement suits. The Googles and Microsofts of the world will regularly be sued by smaller companies or patent owners who assert patents against the technology giants in the hopes of a lucrative settlement. The tech companies rely on a system in which they can invalidate these asserted patents, and the enumerated exceptions in the patent eligibility guidance can bolster and provide clarity in their invalidity arguments.

4. Effect on Patent Practice

Thus far, it seems that Iancu’s 2019 patent eligibility guidance has provided clarity on what subject matter is eligible for a patent. In the twelve-month period following the issuance of the guidance, the Office has seen a 44 percent decrease in uncertainty regarding the patentability of claims.¹⁴⁸ In addition to providing clarity, the effect of the guidance has been to expand patent-eligible subject matter. The year following the patent-eligibility guidance saw a 25% decrease in first office actions containing a rejection for patent-ineligible subject matter of Alice-affected technologies, a complete turnaround from the significant increase in such rejections in the 18 months following *Alice*.¹⁴⁹

¹⁴⁷ Johnson and Johnson, *supra* note 143; see *Research and Development in the Pharmaceutical Industry*, CONG. BUDGET OFF. (Apr. 2021), <https://cbo.gov/publication/57126> (“it can take a decade or more of R&D spending to develop a new drug and successfully shepherd it through clinical trials, drug approvals lag behind the underlying R&D spending”).

¹⁴⁸ Andrew A. Toole & Nicholas A. Pairolo, *Adjusting to Alice*, U.S. PAT. & TRADEMARK OFF. (Apr. 2020), https://uspto.gov/sites/default/files/documents/OCE-DH_AdjustingtoAlice.pdf (uncertainty was measured as variability in patent subject matter eligibility determinations across examiners in the first action stage of examination).

¹⁴⁹ Paul Fucito, *USPTO Releases Report on Patent Examination Outcomes After the Supreme Court’s Alice Decision*, U.S. PAT. & TRADEMARK OFF. (Apr. 23, 2020), <https://uspto.gov/about-us/news-updates/uspto-releases-report-patent-examination-outcomes-after-supreme-courts-alice>.

5. Suggestions

It is hardly surprising that the courts have created an incoherent doctrine surrounding patent-eligible subject matter. Courts and judges are well suited to apply relevant precedent to similar situations. However, a legal system that affords so much deference to the past is ill-equipped to guide an inherently inventive field. Indeed, a patent containing claims that are preceded to the extent to justify dispensing with an original evaluation of subject-matter eligibility would be invalidated not under Section 101, but under Section 102 or 103.¹⁵⁰ For example, consider the “essential principles” of *stare decisis*:

(1) an issue of law must have been heard and decided; (2) if “an issue is not argued, or though argued is ignored by the court, or is reserved, the decision does not constitute a precedent to be followed”; (3) “a decision . . . is *stare decisis* despite the contention that the court was not properly instructed by counsel on the legislative history, or that the argument was otherwise insufficient”; (4) a decision may properly be overruled if “seriously out of keeping with contemporary views . . . [or] passed by in the development of the law . . . or . . . proved to be unworkable”; and (5) there is “a heavy presumption that settled issues of law will not be reexamined.”¹⁵¹

Thus, it is apparent that for the “issue of law to be heard and decided”¹⁵² (with respect to a patent eligibility case, whether an invention is patentable) to be settled with certainty, the invention must have been present before. But the patent statutes expressly preclude protection of an invention that claims subject matter already in the public domain.¹⁵³ 35 U.S.C. § 102 provides that “[a] person shall be entitled to a patent unless . . . the claimed invention was patented . . . or otherwise available to the public before the effective filing date of the claimed invention.”¹⁵⁴ Even with a broader interpretation of *stare decisis* to include *similar* events or “issues,” the patent statutes also expressly

¹⁵⁰ 35 U.S.C. § 102 (“A person shall be entitled to a patent unless . . . the claimed invention was patented . . . or otherwise available to the public before the effective filing date of the claimed invention”); 35 U.S.C. § 103 (“A patent . . . may not be obtained . . . if the differences between the claimed invention and the prior art are such that the claimed invention would have been obvious . . .”).

¹⁵¹ *E.E.O.C. v. Trabucco*, 791 F.2d 1, 4 (1st Cir. 1986) (citations omitted).

¹⁵² *Id.*

¹⁵³ *See* 35 U.S.C. § 102 (2022).

¹⁵⁴ *Id.*

preclude protection of inventions that claim subject matter which could be easily inferred (*i.e.*, obvious) based on a previous patent. 35 U.S.C. § 103 states, “A patent . . . may not be obtained . . . if the differences between the claimed invention and the prior art are such that the claimed invention would have been obvious”¹⁵⁵

Similarly, Congress lacks the expertise to create an efficient, comprehensive scheme to determine eligibility on its own. However, the courts or Congress could consider Iancu’s guidance and take action that has the effect of law. Iancu called for such reform in his final speech as director.¹⁵⁶ “Will the courts, for example, address Section 101, and finally resolve this issue that has plagued our system for the past decade? If the courts cannot do it, then will Congress step in with legislation and finally liberate our country from this quandary?”¹⁵⁷

There is another potential avenue for clarity. Courts could provide greater certainty to the patentability issue by embracing “draftsman’s art”, rather than dismissing it as an effort to circumvent judicial scrutiny. The result of the draftsman’s art—the terms of a claim—is the very thing that a patent owner has a right to exclude from others. And while the language of a claim may be the result of a practitioner’s efforts to survive a Section 101 analysis, the same efforts necessarily limit these exclusive rights to the concrete recitations in the claims. Thus, there is no risk of a narrow application of an idea monopolizing an abstract idea. Furthermore, a holding could be construed that requires an “inventive concept,” while still recognizing as patentable claims that only apply “abstract ideas” to narrow hardware applications. It is not difficult to see how an “inventive concept” could be found in the application of a mathematical equation to a narrow application, such as the alarm limits recited in *Flook*, while being absent in the application of an equation or concept to a generic computer.¹⁵⁸ This type of distinction is exactly the type that the courts are well suited to apply, and it has long been established that “[t]he law is not indifferent to considerations of degree.”¹⁵⁹

¹⁵⁵ 35 U.S.C. § 103 (2022).

¹⁵⁶ U.S. PAT. & TRADEMARK OFF., *supra* note 2.

¹⁵⁷ *Id.*

¹⁵⁸ See *Parker v. Flook*, 437 U.S. 584 (1978) (such a holding would arguably be contrary to Iancu’s guidance. (“[T]he mere application of an abstract method of organizing human activity in a particular field is not sufficient to integrate the judicial exception into a practical application”).

¹⁵⁹ *A.L.A. Schechter Poultry Corp. v. United States*, 295 U.S. 495, 554 (1935)

F. COVID-19 Response

In March 2020, the Patent Office initiated a drastic change to its operations in response to the COVID-19 pandemic. The Office closed its doors to the public and coordinated a transition to remote work for all 13,000 of its employees.¹⁶⁰ This change tested the IT upgrade of two years' prior, with a 75% increase in VPN connections compared with the period before the pandemic.¹⁶¹ Furthermore, the USPTO took several measures to lessen the financial and logistical impact of the pandemic for applicants.¹⁶² For example, in May 2020 the USPTO allowed filing of initial patent term extension applications via patent electronic filing systems when such applications were prohibited prior to the pandemic.¹⁶³ The response was one that the former director described as "seamless," and one that ensured that neither the Patent Office nor its applicants felt the negative impact of the pandemic.¹⁶⁴

However, there was a slight decrease in patent applications from 2019 to 2020. 597,175 utility patent applications were filed in 2020, compared with 621,453 such filings the previous year.¹⁶⁵ According to Iancu, however, the slight decrease in patent applications is "not necessarily a reflection ultimately of long term innovation."¹⁶⁶ Rather, the former director contends that the decrease could simply be due to a delay in some innovative activities, such as innovation sources like labs and university campuses being closed.¹⁶⁷ In any case, the long term effect of the

(Cardozo, J., concurring).

¹⁶⁰ Parker Brogdon, *Top Patent News of 2020*, JURISTAT BLOG (Jan. 4, 2021), <https://blog.juristat.com/top-patent-news-2020>.

¹⁶¹ Tom Temin, *USPTO Director Talks Intellectual Property, Telework in the COVID Era*, FED. NEWS NETWORK (Aug. 28, 2020), <https://federalnewsnetwork.com/tom-temin-federal-drive/2020/08/uspto-director-talks-intellectual-property-telework-in-the-covid-era>.

¹⁶² See *USPTO Grants Further Relief for Certain Patent-Related Fees and Deadlines*, U.S. PAT. & TRADEMARK OFF. (May 27, 2020), <https://uspto.gov/about-us/news-updates/uspto-grants-further-relief-certain-patent-related-fees-and-deadlines>.

¹⁶³ *Relief Available to Patentees in View of the COVID-19 Outbreak for Submission of Initial Patent Term Extension Applications Filed Pursuant to 35 U.S.C. 156*, U.S. PAT. & TRADEMARK OFF. (May 29, 2020), <https://uspto.gov/sites/default/files/documents/156-efiling-20200529.pdf>.

¹⁶⁴ Interview with Andrei Iancu, *supra* note 11.

¹⁶⁵ *U.S. Patent Statistics Chart Calendar Years 1963 – 2020*, U.S. PAT. & TRADEMARK OFF., https://uspto.gov/web/offices/ac/ido/oeip/taf/us_stat.htm.

¹⁶⁶ Interview with Andrei Iancu, *supra* note 11.

¹⁶⁷ *Id.*

COVID-19 pandemic on innovation in the United States is largely speculative at this point, as many patents filed prior to the Patent Office's pandemic-induced changes are still pending.¹⁶⁸ 2020 also saw a significant increase in application abandonments, suggesting that the pandemic impacted company decisions on maintaining patent applications.¹⁶⁹ "From 2016 to 2019, the percentage of applications that were abandoned dropped from 49% to 41%. Then in 2020, the abandonment rate jumped to 62%."¹⁷⁰

Director Iancu's Patent Office took further action to show deference to independent inventors and small businesses during the pandemic. In May 2020, The Patent Office announced the COVID-19 Prioritized Examination Pilot Program.¹⁷¹ The program allows small and micro entities that are seeking a patent covering a product or process for use in the prevention or treatment of COVID-19 to have their applications prioritized, absent the typical fees associated with prioritization.¹⁷² According to Iancu, the program would "permit such innovators to bring important and possibly life-saving treatments to market more quickly."¹⁷³

G. Equity in Invention

An overarching theme of Director Iancu's tenure was to promote equity within the intellectual property arena. In 2019, Director Iancu's Patent Office submitted a report to Congress to highlight areas in which diversity in the field could be

¹⁶⁸ See *Patents Pendency Data January 2023*, U.S. PAT. & TRADEMARK OFF., <https://uspto.gov/dashboard/patents/pendency.html> (the average pendency is the average number of months from the patent application filing date to the date the application has reached final disposition, and is listed at 23.4 months on the USPTO website for October 2021) (last visited Feb. 22, 2023).

¹⁶⁹ See Russkrajec, *Effects of Covid-19 on Patents – Twice the Number of Abandonments*, BLUEIRON, <https://blueironip.com/effects-of-covid-19-on-patents-twice-the-number-of-abandonments> (discussing the abandonment rates for large and small business entities between mid-2019 to 2020).

¹⁷⁰ Michael Gzyboski, *Covid-19's Impact on U.S. Patent Filings*, BLOOMBERG LAW (May 24, 2021, 4:01 AM), <https://news.bloomberglaw.com/ip-law/covid-19s-impact-on-u-s-patent-filings>.

¹⁷¹ COVID-19 Prioritized Examination Pilot Program, 85 Fed. Reg. 28932 (May 14, 2020).

¹⁷² *Id.*

¹⁷³ Paul Fucito, *UPSTO Announces COVID-19 Prioritized Examination Pilot Program for Small and Micro Entities*, U.S. PAT. & TRADEMARK OFF. (May 8, 2020), <https://uspto.gov/about-us/news-updates/uspto-announces-covid-19-prioritized-examination-pilot-program-small-and>.

expanded.¹⁷⁴ The data conclusively showed that women were underrepresented in the patent system.¹⁷⁵ This may not come as a surprise, as it is well known that women have been historically underrepresented in science and engineering, the most common field for patentable inventions. However, the study further showed that even when compared with the total number of *women* within the science and engineering workforce, women inventors were still underrepresented.¹⁷⁶ “In 2015, women made up about 28% of the total S&E work-force . . . but only 12% of inventors named on granted patents.”¹⁷⁷ The same study demonstrated that racial minorities were also underrepresented.¹⁷⁸

A result of a recommendation in the study was the Council for Inclusive Innovation (CI²). The council’s mission is “to help the United States Patent and Trademark Office (USPTO) develop a comprehensive national strategy to increase participation in our innovation ecosystem by encouraging, empowering, and supporting all future innovators.”¹⁷⁹ That includes increasing the involvement of women and other underrepresented groups.”¹⁸⁰ The council boasts members such as CEOs of several Fortune 500 companies and seeks to strategically “develop a comprehensive, lifelong approach that spurs interest in innovation and inventing, and then provides for increased access to the innovation ecosystem.”¹⁸¹ The effectiveness of the council is still unknown, but the USPTO assures that it will continually document

¹⁷⁴ See United States Patent and Trademark Office, *Report to Congress Pursuant to P.L. 115-273, the SUCCESS Act* (Oct. 2019), <https://uspto.gov/sites/default/files/documents/USPTOSuccessAct.pdf> (discussing participation of female minority, and veteran inventors in patent applications).

¹⁷⁵ See *id.* at 13–16 (showing women inventors to have risen in number since the 1970s but to still comprise barely over 10%. The USPTO does not collect demographic information. The Office utilized different methods to determine or infer demographic information including linking USPTO data to other data sources that contain demographic information; using computer algorithms to infer the gender of inventor-patentees; surveying inventor-patentees; and collecting information from historical narratives).

¹⁷⁶ *Id.* at 9.

¹⁷⁷ *Id.*

¹⁷⁸ *Id.* at 13.

¹⁷⁹ *About the Council for Inclusive Innovation*, U.S. PAT. & TRADEMARK OFF., <https://uspto.gov/initiatives/equity/ci2/about> (last visited Feb. 22, 2023).

¹⁸⁰ *Id.*

¹⁸¹ U.S. PAT. & TRADEMARK OFF., *supra* note 179; *Members of the Council for Inclusive Innovation*, U.S. PAT. & TRADEMARK OFF., <https://uspto.gov/initiatives/equity/ci2/members> (showing current members of the council).

progress towards the goals of the council through updates and reports.¹⁸²

The creation of the National Council for Expanding American Innovation was the first item Director Iancu mentioned when I asked him which aspect of his tenure he was most proud of. In Iancu's own words, the objective is to "increase[] the participation in the innovation ecosystem across the demographics of the United States and across the geography of the United States."¹⁸³ Iancu expressed his concern that the country needs to do more to bring everyone into the innovation ecosystem.¹⁸⁴

III. CONCLUSION

Iancu's three short years as the Director of the United States Patent and Trademark Office saw several changes in patent procedures. The policy implementations at the PTAB were generally deferential to patent owners. As an example, Director Iancu changed the claim construction standard applied in PTAB proceedings to align with the standard applied in federal courts. According to Iancu, this was part of his goal to create a more predictable and reliable IP system. Many condemned this decision for its alleged lack of notice, and others claimed that Congress is the appropriate source of changes of that nature. Another controversial Iancu-era PTAB policy implementation was the precedential designation of *Fintiv*, which ultimately increased the power of the patent tribunal to reject petitioners and was arguably the most controversial policy implementation at the PTAB. The court in the *Fintiv* case specified that the factors are meant to authorize judges to deny instituting review when the "efficiency and integrity of the system" are served in the process.¹⁸⁵ Nonetheless, designation and the resulting denials have generated much resistance in the form of lawsuits and legislative proposals.

The PTAB also saw a number of more agreeable changes under Iancu. The Fast-Track Appeals Pilot Program, for example, allowed patent owners willing to pay the fee the opportunity to advance their *ex parte* appeals out-of-turn.¹⁸⁶ And the Motion to

¹⁸² U.S. PAT. & TRADEMARK OFF., *supra* note 179.

¹⁸³ Interview with Andrei Iancu, *supra* note 11.

¹⁸⁴ *Id.*

¹⁸⁵ Apple Inc. v. Fintiv, Inc., No. IPR2020-00019, 2020 L 2126495 (P.T.A.B. Mar. 20, 2020).

¹⁸⁶ See *supra* text accompanying notes 66–73.

Amend Pilot Program permits patent owners the ability to request preliminary, nonbinding guidance and to file revised motions.¹⁸⁷ Early statistics reveal that patent owners are more likely to succeed with their motion following the program compared with their chances prior to its conception.¹⁸⁸

The most notable change under Iancu was the issuance of the 2019 Revised Patent Subject Matter Eligibility Guidance. The Guidance came at a time when there was boundless confusion about an issue most fundamental to patent law—*what* is patentable? The courts had no good answer. But Iancu took leadership on the issue of patent eligibility at a time when the courts and Congress acquiesced in a widespread call for action. This guidance does not have the force of law. However, it harmonized an incoherent doctrine and courts thus far have failed to reject it. And it has had the practical effect of decreasing the uncertainty regarding a claim's patentability and expanding what is considered as patent-eligible subject matter.

Much of the continuation of the policies implemented by Director Iancu will hinge upon the efforts of his successors. In October, President Joe Biden nominated Kathi Vidal to serve as the next Director of the USPTO.¹⁸⁹ Like Iancu, Vidal had an early career in engineering and is beginning her tenure at the USPTO as an experienced IP litigator.¹⁹⁰ In December 2021, Vidal provided a written response to a question on whether she supports Director Iancu's Revised 101 Guidance and what steps she can take to provide further clarity as it relates to patent eligibility determinations in the examination process.¹⁹¹ Vidal ironically gave a less-than-certain answer, indicating that she "support[s] the principle of such guidance."¹⁹² Time will tell the effect of Iancu's successors on the Revised 101 Guidance—or any of his policies. But it will be difficult to generate the body of work product as the former director. It will be equally as difficult to generate the controversy. To some, Andrei Iancu exceeded his

¹⁸⁷ See *supra* text accompanying notes 74–90.

¹⁸⁸ See *supra* text accompanying note 90.

¹⁸⁹ Press Release, Briefing Room of The White House, President Biden Announces Key Nominations (Oct. 26, 2021) (on file with whitehouse.gov).

¹⁹⁰ *Id.*

¹⁹¹ See Senator Chuck Grassley Questions for the Record for Ms. Kathi Vidal Nominee for U.S. Patent and Trademark Office Director, <https://ipwatchdog.com/wp-content/uploads/2021/12/Vidal-Answers-to-QFRs-FINAL.pdf>.

¹⁹² *Id.*

authority and wrongfully took on a role that was properly reserved for Congress. To others, he is the gold standard to which any future director must adhere.¹⁹³

¹⁹³ Parker Brogdon, Andrei Iancu's Tenure at the USPTO, JURISTAT BLOG (Feb. 5, 2021), <https://blog.juristat.com/andrei-iancu>.