Supplemental Statement of

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on Courts, Intellectual Property, and the Internet

COMMITTEE ON THE JUDICIARY
United States House of Representatives

“The Impact of Bad Patents on American Businesses”

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INTRODUCTION

Chairman Issa, Ranking Member Nadler, and Members of the Committee and Subcommittee:

I thank the Committee for the opportunity to have provided testimony during the hearing held on July 13, 2017. I also thank the Committee for the opportunity to provide this supplemental testimony addressing various issues that were raised during the hearing.

The American economy’s success depends heavily on invention. Our “Innovation Economy” requires adequate incentives to invest in innovation because most invention is very risky and very expensive. A well-functioning patent system provides the necessary incentive for securing such investments, both of company revenues and outside funding from venture capitalists, private equity firms, pension funds, commercial banks, and other similar sources. Of course, investors have many alternative investment options, and if risks are lower and rewards higher in other countries or in other endeavors such as entertainment, that is where investment funds will flow. Without the proper incentives provided by the patent system, investment in innovation will falter, and the U.S. economy will suffer.

The health of the American patent system is therefore of the highest national importance. Improving the U.S. patent system will lead to:

- economic growth;
- creation of net new jobs with competitive salaries;
- productivity increases;
- enhanced global competitiveness;
- increased family and individual incomes;
- increased tax revenues to support crucial upgrades in citizen welfare and physical infrastructure;
- technological leadership; and
- technological developments to address environmental issues; and
- economic and national security.

The Committee is conducting some of the most important work in Congress. The Committee’s work will effect positive change to stabilize the U.S. patent system and will create the necessary incentives for developing, protecting, and commercializing American innovation. I applaud the Committee’s work.

In my twenty-two years as a judge on the U.S. Court of Appeals for the Federal Circuit, I witnessed countless examples of the importance of innovation in protecting and growing business. And as I stated during my testimony on July 13, 2017, I am testifying on behalf of myself only, and not advocating for any particular companies or groups, as are the other witnesses. I firmly believe my recommendations set forth below will benefit the U.S. economy and the Nation as a whole, and I respectfully urge the Committee to adopt the recommendations.
EXECUTIVE SUMMARY

The Committee can rescue the U.S. patent system and reinvigorate the U.S. economy. To do so, the Committee should adopt seven specific action items (listed below as A-G). The first five will substantively and procedurally improve patent law and strengthen patent rights while optimizing PTAB procedures. The last two items relate to the administration of the U.S. Patent and Trademark Office. A more detailed discussion of each of the items follows, as well as several concluding points in response to specific queries noted at the July 13 hearing.

A. Amend the AIA to Ensure Fairness and Improve Economic Competitiveness. After six years, the AIA has caused more harm than good. It is time to fix the PTAB system and reinstate confidence in the U.S. patent system.

1. A reexamination off-ramp must be established. It will enable the USPTO to properly examine new and amended claims introduced during the AIA post-grant review.

2. A patent owner must have a right to amend claims during AIA review. The reexamination off-ramp will obviate the PTAB’s current reluctance to permit patent owners to amend claims.

3. AIA post-grant proceedings must apply the clear and convincing evidentiary standard and the presumption of validity. Lower standards of proof have no place in adjudicating patent rights and are contrary to Supreme Court precedent and 35 U.S.C. § 282.

4. The PTAB must discard the broadest reasonable interpretation (“BRI”) claim construction and apply the Phillips standard. Using the same claim construction standard as in district court will avoid inconsistent outcomes involving the same patent.

5. The PTAB panel deciding the merits of the case cannot be the same decisionmaker that decides to institute review. The decision to institute review must be made by a different decisionmaker. This must be done to prevent the PTAB panel jumping to premature conclusions based on “first impression” bias and incomplete evidence.

6. Parties who challenge patents through AIA post-grant review proceedings must have Article III standing. AIA post-grant review was intended to be a surrogate for district court litigation. In district court, a party can challenge patent validity only if the party has Article III standing to pursue such a challenge. The same should hold true in AIA post-grant proceedings. Implementing a standing requirement will also decrease the burden on PTO and PTAB resources and increase the fidelity of the review process.

B. Amend 35 U.S.C. § 101 to Eliminate the Current Uncertainty in Patent-Eligibility Law. Patent-eligibility law under § 101 has descended into chaos after a string of Supreme Court decisions. Congress must amend the statute to bring order from chaos. The legal uncertainty is devastating American business, including high tech, manufacturing, biotech, and pharmaceutical industries. Section 101 must be amended (a) to recognize that a patent claim with a physical aspect or element necessarily satisfies patent eligibility; (b) to clarify that processes containing
solely mental steps are not patent eligible; and (c) to add the following: “Eligibility shall not be
denied based on any judicially-imposed exceptions.”

C. Amend 28 U.S.C. § 1400(b) to Define “Regular and Established Place of Business” for
Purposes of Venue in Patent Litigation. Congress must define “regular and established place of
business” to bring clarity to the patent venue statute. TC Heartland did not address the entire
statute, courts are split, and litigation will continue until Congress defines the statutory phrase.
A regular and established place of business should not include a place where a company merely
has transient employees and activities. The regular and established place of business should also
not include locations where a limited number of employees work remotely or telework. Without
this clarification, many companies will be subjected to patent infringement actions in districts
throughout the United States, even though they conduct little actual business in the districts. I
leave it to Congress to adopt the specific language necessary.

D. End PTO Fee Diversion. The AIA sought to minimize PTO fee diversion, but hundreds of
millions of dollars—paid by inventors and innovators—continue to be used for non-patent
purposes. From 2010 to 2014, a total of $409.8 million in PTO user fees was diverted to non-
PTO uses. PTO fee diversion is a tax on innovation, and it must be stopped.

E. Authorize Technical Support Staff for District Judges Participating in the Patent Pilot
Program. Congress should authorize technical support staff for federal district court judges who
participate in the Patent Pilot Program. The Patent Pilot Program successfully yielded a group of
federal district court judges who are more experienced with patent infringement actions.
Additional technical support staff for these judges will help them understand complex patent
cases and will provide additional assistance to dispose of those cases efficiently and rigorously.

F. Require the PTO Director to Be Qualified and Admitted to the Patent Bar. The PTO
needs the best and brightest leadership. PTO leadership must understand the technological
advances with which the PTO is being entrusted. Accordingly, the PTO Director must be an
individual who is admitted to practice before the PTO and thus has a patent bar registration
number. This requirement will ensure that the PTO Director has the necessary technical
knowledge to fully execute the PTO’s mission. While the PTO Director need not be a technical
expert, having the minimum scientific education is critical to effective leadership.

G. Empower PTO Leadership to Maintain Quality Patent Examiners. In recent years, the
PTO Director has been unnecessarily hampered by burdensome rules governing employee
misconduct and responsibility, as well as insufficient means to reward the best employees. PTO
leadership must be empowered to make the decisions necessary to lead the agency entrusted with
protecting the nation’s innovation. To do so, PTO leadership should be given more authority to
reward excellent employees and to discipline improper employee conduct. The PTO Director
should be encouraged to, and, to the extent necessary, given additional authorization to, award
sufficient cash bonuses to the very best patent examiners, not to exceed 5% of examiners per
annum. The PTO leadership must be authorized to expeditiously dismiss employees, particularly
examiners, when those employees have committed egregious misconduct. Finally, examiner
training and continuing education must be improved, with emphasis on claim construction and
DETAILED SUPPLEMENTAL STATEMENT

I. Amend the America Invents Act to Ensure Fairness in the Process

In 2011, Congress passed the America Invents Act\(^1\) (“AIA”) in part as an effort to provide an alternative venue for resolving patent validity disputes. When Senator Patrick Leahy introduced a bill that ultimately led to the AIA, he stated that it would “provide[] the tools the USPTO needs to separate the inventive wheat from the chaff” and that “[i]t will allow our inventors and innovators to flourish.”\(^2\) The AIA was supposed to “improve patent quality and restore confidence in the presumption of validity that comes with issued patents.”\(^3\)

In the six years since, we have witnessed the opposite—plummeting patent values, while licensing and capital investments in many technologies are sinking. Erroneous grants and denials of patents and excessive invalidations by the Patent Trial and Appeal Board (“PTAB”) are sapping the strength of our patent system. While the PTAB has cancelled many patent claims that should never have issued, the PTAB’s implementation of the AIA does not “allow our inventors and innovators to flourish.” In fact, the situation is so bad that inventors are burning their issued U.S. patents at the steps of the PTO to express their outrage with the PTAB.\(^4\)

I submit this supplemental statement with the understanding that the U.S. Supreme Court is currently considering two cases—*Oil States Energy Services, LLC v. Greene’s Energy Group, LLC* and *SAS Institute Inc. v. Matal*—that may affect AIA post-grant proceedings. Further evaluation may be necessary in response to the Court’s decisions in those two cases. My submission here must not be interpreted as an endorsement of any particular legal position advanced in *Oil States* or *SAS Institute*.

A. Establish a “Reexamination Off-Ramp” from the Post-Grant Proceeding

As I stated during my hearing testimony, a major deficiency with the current AIA post-grant review process is the lack of a meaningful ability to amend and examine claims during the post-grant review process. A patent owner should be granted a right to amend claims. The objective of post-grant review should be to ensure that patents contain claims that cover only novel and nonobvious inventions, and that overly broad claims are cancelled.

Prior to the AIA, the ex parte reexamination proceeding was an effective procedure to cancel invalid claims without having to proceed through district court litigation. The reexamination

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process allows the PTO to thoroughly reexamine issued claims and to examine newly presented
claims. Examining claims—whether new or old—takes time, especially if new prior art or new
patentability arguments are presented.

A primary obstacle to achieving effective claim examination in AIA post-grant proceedings is
that the PTAB is not a patent-examining body. The administrative patent judges (“APJs”) of the
PTAB are not equipped to search and review the prior art and to comprehensively review new
claims for patentability. Instead, the APJs are tasked with adjudicating specific competing
arguments advanced by the parties in light of a limited set of evidence.

The limited time allowed for completing AIA post-grant proceedings is another obstacle to
effective claim examination in the AIA context. The AIA post-grant proceedings must generally
be completed within 18 months from the filing date of the petition. Little time exists for proper
examination of new and amended claims in those 18 months. The timeframe contributes to the
PTAB’s reluctance to allow parties to amend claims.

The straightforward solution is to establish a “reexamination off-ramp.” The reexamination off-
ramp could be structured in various ways, but the basic premise would allow the patent to be
moved from the AIA post-grant process to the reexamination process. The reexamination off-
ramp would give the PTO enough time and resources to properly assess the validity of new and
amend claims and to fully consider new prior art.

The PTO appears authorized to create a reexamination off-ramp under existing law. Under 35
U.S.C. § 315(d) and § 325(d), the PTO Director has the authority to “stay, transfer, consolidat[e],
or terminat[e]” another “proceeding or matter involving the patent” that is being reviewed in the
AIA post-grant proceeding. Thus, under the statute, the PTO Director can transfer the AIA
review of a patent to the reexamination process (which would be another “proceeding or matter
involving the same patent”).

Further, the PTO Director can sua sponte order the reexamination of any issued patent. To
institute reexamination, the PTO Director must establish that a substantial new question of
patentability exists. In practice, if the PTAB has instituted post-grant review of a patent, it will
certainly be the case that a substantial new question of patentability exists. Accordingly, the
PTO Director will generally have the statutory authority to institute an ex parte reexamination of
any patent for which the PTAB has instituted post-grant review under the AIA.

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5 35 U.S.C. §§ 316(a)(11), 326(a)(11). If additional time is needed, the PTAB can extend the
proceeding by up to six months, see id., but the PTAB rarely, if ever, has taken advantage of that
additional time.

6 35 U.S.C. § 315(d) reads in full: “(d) Multiple Proceedings.— Notwithstanding sections 135(a),
251, and 252, and chapter 30, during the pendency of an inter partes review, if another
proceeding or matter involving the patent is before the Office, the Director may determine the
manner in which the inter partes review or other proceeding or matter may proceed, including
providing for stay, transfer, consolidation, or termination of any such matter or proceeding.”

Although authorized to transfer or stay AIA matters and thus create the reexamination off-ramp, the PTO Director and PTAB have not done so. I am aware of no instance in which an IPR review has been transferred to the reexamination process. The PTAB has stayed reexaminations in view of concurrent IPR reviews, but that result is the opposite of what I suggest is preferable. The patent owner would prefer the option to proceed through reexamination in order to have amended and new claims properly examined.

The PTO is unlikely to establish, on its own volition, the necessary reexamination off-ramp. The PTAB focuses too much on completing AIA post-grant proceedings within the deadlines—without ever taking the additional time allowable under the statute. Institutional inertia is another likely culprit; a federal agency is institutionally disinclined to make a significant procedural change even though it would create an efficient, creative solution.

To solve the problem, Congress should amend the AIA to provide the patent owner with a right to demand that the patent be transferred to a reexamination proceeding from the AIA post-grant proceeding if claim amendments are made, new claims added, or new prior art is presented. This reexamination off-ramp will provide the proper means by which to examine new claims for patentability and to examine existing claims in view of new prior art.

Some patent owners, to be sure, may forgo the reexamination off-ramp for various reasons. Reexamination generally takes longer than AIA post-grant review. Additional prior art and arguments may be considered in the reexamination, beyond what was the initial basis for instituting the reexamination. Once the reexamination begins, the examiner is free to consider all available prior art—not just the art cited at the beginning of the proceeding. In reexamination, an examiner may also reject claims based on double patenting grounds. And surviving reexamination with amended claims subjects the claims to intervening rights (as explained below in the next section). Even with these features, a reexamination off-ramp will be utilized to properly examine new and amended claims presented during AIA post-grant review.

In short, the reexamination off-ramp is an ideal mechanism to enable the PTO to examine new and amended claims in light of the cited prior art and to consider new arguments and new prior art about the patentability of issued claims. Even though the PTO Director can create the reexamination off-ramp under current law, minor statutory amendments to the AIA may be necessary to ensure the procedure’s viability for those patent owners who elect to use the reexamination off-ramp.

B. A Patent Owner Must Have a Right to Amend Claims During AIA Proceedings

AIA proceedings should be revised so that a patent owner has a right to amend its claims. This proposal will simplify the proceedings, enable patent challengers to cull overly broad claims, and ensure that inventors and innovators maintain valid patent protection for novel and nonobvious

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9 In re Lonardo, 119 F.3d 960, 965-67 (Fed. Cir. 1997).
inventions. The reexamination off-ramp will enable proper examination of new and amended claims.

In AIA post-grant proceedings, a patent owner currently lacks the right to amend claims but does have the right to file one motion seeking an amendment of the claims. The PTO’s and PTAB’s application of the AIA makes illusory the ability to amend claims during a post-grant proceeding. Many have written about the problems associated with the lack of a meaningful ability to amend the claims.

Some have suggested that the PTAB rarely allows claim amendments because the compressed timing of the post-grant proceeding. This is likely so, but, with a reexamination off-ramp the patent owner will have the right to ask that new and amended claims be fully examined before a patent examiner. The PTAB has the authority to stay proceedings, and therefore concerns about statutory timing requirements are misplaced.

I further note that the Federal Circuit has an appeal, *In re Aqua Products, Inc.*, pending before the full en banc court. The court granted rehearing en banc to address the following questions:

(a) When the patent owner moves to amend its claims under 35 U.S.C. § 316(d), may the PTO require the patent owner to bear the burden of persuasion, or a burden of production, regarding patentability of the amended claims as a condition of allowing them? Which burdens are permitted under 35 U.S.C. § 316(e)?

(b) When the petitioner does not challenge the patentability of a proposed amended claim, or the Board thinks the challenge is inadequate, may the Board sua sponte raise patentability challenges to such a claim? If so, where would the burden of persuasion, or a burden of production, lie?

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10 35 U.S.C. §§ 316(d), 326(d).
11 See 37 C.F.R. § 42.121(a)(3) (requiring that proposed substitute claims must “respond to a ground of unpatentability involved in the trial” and may not “enlarge the scope of the claims of the patent or introduce new subject matter”); id. § 42.121(a)(3) (mandating that “[t]he presumption is that only one substitute claim would be needed to replace each challenged claim”); *Idle Free Sys., Inc. v. Bergstrom, Inc.*, No. IPR2012-00027, Paper No. 26 (P.T.A.B. June 11, 2013) (listing additional requirements for motions to amend claims); *MasterImage 3D, Inc. v. Reald Inc.*, No. IPR2015-00040, Paper No. 42 (P.T.A.B. July 15, 2015).
13 Appeal No. 2015-1177.
My proposal of a mandatory right to amend during AIA post-grant proceedings would simplify the process for amendments and would reduce litigation about whether the PTAB properly granted or denied motions to amend. Evident from the *Aqua Products* en banc case, the Federal Circuit is weighing issues such as “burden of persuasion” and “burden of production” in the context of motions to amend claims. These issues can be complicated—and are too complicated to be decided in the context of an AIA post-grant proceeding. The right to amend, with a reexamination off-ramp, will obviate this unnecessary complexity.

At the same time, accused infringers will be protected from claim amendments under the doctrine of intervening rights. When a patent owner amends the claims, the doctrine of intervening rights may apply to cut off damages liability, and the accused infringer may not be liable for past or future infringement of the new or amended claims. As the Federal Circuit has explained, “the making of substantive changes in the claims is treated as an irrebuttable presumption that the original claims were materially flawed,” and therefore, the doctrine of intervening rights “relieves those who may have infringed the original claims from liability during the period before the claims are validated.”

In the post-grant situation, the goal should be to preserve valid patent protection while cancelling invalid claims. Affording a patent owner the right to amend claims, particularly when facing newly presented prior art, will help achieve the proper balance between cancelling overly broad claims and maintaining patent protection for worthy innovation.

### C. In AIA Reviews, The PTAB Must Apply the Clear and Convincing Evidence Standard and the Presumption of Validity

AIA post-grant proceedings use the “preponderance of the evidence” standard. After several years, our experience proves that this evidentiary standard is too low. Patents covering important inventions are too easily invalidated. Congress should amend the statute so that the “clear and convincing” standard—the same used in district court proceedings—is used in AIA post-grant proceedings.

When the AIA was passed, a patent owner expected to have an opportunity to amend challenged claims. The procedure would in part resemble an examination of the claims, similar to what occurs in *ex parte* patent prosecution. Patent examination is an *ex parte* process, and using a too-high evidentiary standard would hamper the PTO examiner’s ability to reject claims of questionable patentability. If a post-grant proceeding were, in fact, like patent examination, it would make sense to use the lower “preponderance of the evidence” standard when assessing the patentability of any given claim.

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16 35 U.S.C. §§ 316(e), 326(e).
17 *See In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992) (“After evidence or argument is submitted by the applicant in response, patentability is determined on the totality of the record,
But a post-grant proceeding differs significantly. AIA proceedings are adversarial adjudications of patent validity. The petitioner and the patent owner put forth competing arguments based on the evidence presented. There is no meaningful procedure by which patent owners can amend claims and have their new claims examined for patentability. The post-grant proceedings include discovery and the taking of testimony of witnesses. Indeed, AIA post-grant proceedings were intended to be a less expensive, faster alternative to traditional district court litigation.

Establishing a more efficient forum for adjudicating patent validity disputes is a reasonable objective, but little justification exists for lowering the evidentiary standard for assessing the validity of a duly-issued patent. Post-grant proceedings should focus on confirming valid patent rights and cancelling invalid claims, consistent with outcomes expected in district court litigation, but without the unnecessary costs associated with burdensome discovery matters and the delays due to crowded district court dockets.

In *Microsoft Corp. v. i4i Ltd. Partnership*, the Supreme Court unanimously upheld that the clear-and-convincing standard applies to validity determinations in patent infringement actions. The Court ruled that 35 U.S.C. § 282 embodied the common-law rule for the standard of proof: “The common-law presumption, in other words, reflected the universal understanding that a preponderance standard of proof was too ‘dubious’ a basis to deem a patent invalid.”

If, in the Supreme Court’s view, the “preponderance of the evidence” standard is “too dubious” for patent invalidation, then that dubious standard should not be used in AIA post-grant proceedings, especially when a patent owner cannot amend or add patent claims and the proceeding is not structured to enable the PTO to examine new or amended claims.

Similarly, validity determinations in AIA post-grant proceedings should be consistent with district court proceedings by properly applying the statutory presumption of validity set forth in 35 U.S.C. § 282. As Judge Rich explained over thirty years ago, § 282 “creates a presumption that a patent is valid and imposes the burden of proving invalidity on the attacker” and “[t]hat burden is constant and never changes and is to convince the court of invalidity by clear evidence.” The Supreme Court reaffirmed the importance of the statutory burden of proof in

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by a preponderance of evidence with due consideration to persuasiveness of argument.”)); *In re Corkill*, 771 F.2d 1496, 1500 (Fed. Cir. 1985).

18 *E.g.*, 157 Cong. Rec. S1326 (daily ed. Mar. 7, 2011) (statement of Sen. Sessions) (opining that post-grant review “will allow invalid patents that were mistakenly issued by the PTO to be fixed early in their life, before they disrupt an entire industry or result in expensive litigation”); see also Tony Dutra, *AIA at 5 Years: PTAB’s Tectonic Change in Patent Litigation*, Bloomberg BNA, Sept. 16, 2016 (quoting Kevin Jakel, CEO of Unified Patents: “The PTAB has been a game-changer and, as the legislative intent suggested, it has worked as a less expensive alternative to litigation . . .”); at https://www.bna.com/aia-years-ptabs-n57982077105/.


20 *Id.* at 2246.

Microsoft v. i4i, but currently, too many patent owners feel that the deck is stacked against them and that they have the burden to prove their patents valid once they set foot in the PTAB.

In total, post-grant proceedings should use a clear and convincing evidence standard of proof and a presumption of validity when deciding the validity of issued patents in AIA post-grant proceedings.

D. The PTAB Must Use the Same Claim Construction Standard Used in Patent Litigation Before Article III District Courts

Another concern with AIA post-grant proceedings is that, pursuant to PTO rule, the PTAB construes the claims using the broadest reasonable interpretation (“BRI”) when assessing the validity of the claims.22 When the PTO implemented the BRI rule23 for AIA post-grant proceedings, the expectation was that the patent owner would have a reasonable ability to amend claims and propose new claims, which then would be examined for patentability. As we now know, however, claim amendments are rarely permitted in post-grant review proceedings.24

The result is an extraordinarily high patent cancellation rate in AIA post-grant proceedings. The PTAB’s use of the BRI, which is different than in federal district court, results in the cancellation of claims based on a claim interpretation divorced from the patent’s specification, as it would be understood by the ordinary artisan. The PTAB does not construe the patent claims according to its plain and ordinary meaning, as is required in federal court.25 Instead, the PTAB uses the BRI, a broader interpretation of the claims and the same approach used by patent examiners when reviewing patent applications. In some instances, the BRI does not properly account for prosecution history, which can inform the ordinary artisan’s understanding of the claims. The BRI has led to differing outcomes in post-grant proceedings compared to district court patent litigation, and that result conflicts with the AIA’s goal of creating an alternative forum for patent litigation.

Moreover, using the BRI in a proceeding lacking the right to amend claims makes little sense. In contrast, during reexamination, a patent applicant can readily amend claims should the examiner apply the BRI and conclude that the claim is not patentable. The patent owner can narrow the claim to overcome the examiner’s rejection (based on the BRI) and then maintain claims, albeit narrower claims, that still protect the invention. Not so in AIA post-grant proceedings.


23 See 37 C.F.R. § 42.100(b) (2016).

24 The Supreme Court’s decision in Cuozzo upheld the validity of the PTO’s rule applying the BRI. I do not reargue that issue but instead target the best rule for achieving the AIA’s objectives. With experience, we have learned that the BRI in AIA post-grant proceedings causes more harm than good.

Instead of using the BRI, the PTAB should use the plain and ordinary meaning, i.e., the Phillips standard, for construing claims. This would harmonize PTAB patent reviews with district court proceedings, minimize conflicting outcomes, and make AIA post-grant proceedings a truer surrogate for district court litigation, as Congress originally intended.

My proposal is also consistent with my suggestion above to give patent owners the right to amend the claims. If a patent owner chooses to amend or add claims during a post-grant proceeding, the process could move forward through the reexamination off-ramp. The reexamination process would then provide a proper examination of the new and amended claims, using the BRI as per accepted practice.

E. The Institution Decision Must be Made by a Distinct Decisionmaker from the PTAB Panel that Would Rule on the Merits

When Congress established the AIA, it instructed that “[t]he Director” of the PTO “shall determine whether to institute an inter partes review,”26 and that “[t]he Patent Trial and Appeal Board shall … conduct each inter partes review instituted under this chapter.”27 Thus, Congress—for good reason—envisioned a system in which the initial decision to institute AIA post-grant review was made by another decisionmaker, while the final decision on the merits would be by the PTAB. Contrary to congressional intent, the PTO uses the same PTAB panel to make both the decision to institute and the final decision on the merits.28 The PTO’s procedure is inconsistent with the statute, is functionally flawed, and should be corrected.

A major flaw in the PTO’s system is that the three-judge PTAB panel that decides whether to institute or not is the same panel that decides the merits of the patent challenge. The very act of deciding to institute review likely prejudices the panel, even though the panel has reviewed only an incomplete record. In many instances, the PTAB panel may decide to institute review after hearing only from the petitioner because the patent owner, for good reasons, did not file a patent owner preliminary response.

The saying “you only get one chance to make a first impression” rings true in the patent litigation context. As a judge, I was highly influenced by my first read of the parties’ briefs. I always kept an open mind, of course, as I studied the briefs, read my clerk’s bench memo, reviewed the evidentiary record, and listened to oral argument by the attorneys. My final conclusions often differed from my initial impression, but my initial impression, based on the briefs, strongly influenced my subsequent thinking of the case.

My personal experience is consistent with well-documented reports in the legal and scientific literature. Legal scholars, relying on cognitive science research, have explained that “individuals, including judges, will overvalue initial impressions, even those based on imperfect

27 Id. § 316(c).
28 37 C.F.R. § 42.4(a) (“The Board institutes the trial on behalf of the Director.”).
information.”29 “[P]eople form their first impressions of an issue based on the context in which they first confront it” and “they have an ingrained tendency to overestimate the extent to which those circumstances are representative of the issue.”30 Indeed, the literature is vast concerning the extent to which inaccurate “first impressions” can influence final decisionmaking.31

For these reasons, I was always certain to read the parties’ appeal briefs together, meaning I read the appellant’s brief and then would immediately read the appellee’s brief, so that I learned both sides of the story at the same time. I sometimes would read the appellant’s reply brief first, and then the appellee’s brief. My approach allowed me to digest opposing arguments close in time so I could process all arguments and evidence before reaching any firm initial conclusions.

The PTAB’s current process of reviewing AIA petitions is not structured to mitigate the risks associated with first impression bias based on incomplete information. The PTAB panel’s first introduction to the case is based on a thorough and complete petition filed by the patent challenger. The patent owner is not required to file a preliminary patent owner response before the PTAB panel decides whether to institute review. Even if the patent owner does file a preliminary response to the petition, the preliminary response will likely be limited, even under the expanded rules permitting the patent owner to file testimonial and other evidence.32

Recent news about PTAB “panel packing” underscore the importance of establishing fair PTAB procedures. Judges on the Federal Circuit have questioned the propriety of changing a PTAB panel in order to achieve a desired result in post-grant proceedings. In a rare two-judge concurrence, Judges Dyk and Wallach “question[ed] whether the practice of expanding panels where the PTO is dissatisfied with a panel’s earlier decision is the appropriate mechanism of achieving the desired uniformity.”33 And in an earlier case, a PTO attorney acknowledged that “anytime there has been a seeming other-outlier [the PTO has] engaged the power to reconfigure the panel so as to get the result [the PTO] want[s].”34

31 See, e.g., Thomas C. Mann & Melissa J. Ferguson, Can We Undo Our First Impressions?: The Role of Reinterpretation in Reversing Implicit Evaluations, 108 J. Personality and Social Psychology 832 (2015); Philip E. Tetlock, Accountability and the Perseverance of First Impressions, 46 Social Psychology Quarterly 285 (1983); see also Matthew Rabin & Joel L. Schrag, First Impressions Matter: A Model of Confirmatory Bias, 114 Quarterly J. of Economics 37, 37 (Feb. 1999) (“Psychological research indicates that people have a cognitive bias that leads them to misinterpret new information as supporting previously held hypotheses.”).
32 37 C.F.R. § 42.107(c) (2016).
Whether the PTO Director is allowed to “panel pack” is beyond the scope of my testimony here, but I raise it because it relates to whether PTO and PTAB procedures are—and appear to be—fair to patent owners and applicants. The current structure for reviewing AIA post-grant petitions fails to account for the “first impression” bias. The panel forms in an initial view based on the petitioner’s initial arguments and before reviewing the competing evidence. Coupled with the revelations about potential “panel packing,” inventors and innovators are quickly losing faith in the PTAB process.

To correct these deficiencies, the initial decision on an AIA petition should be made by a decisionmaker other than the three-judge PTAB panel making the final decision. The PTO Director has various options that could be easily implemented. For instance, delegate the initial decision to institute to a single APJ. Alternatively, the initial decision could be made by the Central Reexamination Unit (“CRU”). Once a case is instituted, then the case would be assigned to a full PTAB panel comprising three new APJs who will adjudicate the matter without the risk of “first impression” bias.

My proposal obviates concerns that separating the institution decision from the final written decision will create too much work for the PTAB. If the CRU is used to make the institution decision, then workload on the Board will decrease. If a single APJ makes the initial decision, the workload will decrease, as only one APJ will be assigned to the petition during the first six months (the institution stage), in effect freeing up two APJs for six months.

The CRU may be particularly well-suited to make the initial decision on an AIA post-grant review petition. The CRU was created in 2005 within the PTO to provide a dedicated group of employees to rule on reexamination requests. By creating the CRU, the PTO increased the consistency of reexamination proceedings. The CRU also worked to reduce pendency in reexamination proceedings. The CRU has more than ten years of experience making the very types of decisions that are made when granting or denying an AIA post-grant review petition.

While the PTO has the authority to implement these changes, expediency warrants congressional action. A relatively minor statutory amendment would achieve the result. Specifically, 35 U.S.C. § 314 currently specifies that the Director shall determine whether to institute inter partes review. A new subsection, § 314(f), could read:

> Under no circumstances shall the determination whether to institute inter partes review be made by an individual who is a member of the Patent Trial and Appeal Board who participates in the inter partes review after institution or the final written decision under § 318 of this chapter.

With this amendment, the PTO Director will have broad discretion on how to assign the decision to institute, while requiring a decisional separation between the preliminary institution decision

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36 The analogous section for post-grant review (“PGR”) is 35 U.S.C. § 324.
under § 314 and the final written decision on the merits under § 318. Corresponding changes should be made for the other two AIA reviews.

F. A Petitioner Challenging a Patent in the PTAB Must Have Article III Standing

Another needed improvement to the AIA is to require that all post-grant patent challengers demonstrate Article III standing. This requirement would better align post-grant proceedings with district court proceedings. The AIA scheme was intended to be a faster, less expensive alternative to district court litigation, and district court patent challenges are limited to those parties.

Article III of the U.S. Constitution restricts the power of federal courts to adjudicate “Cases” and “Controversies.” This demands an actual controversy to exist between parties seeking to litigate a matter in federal court. Article III applies equally to patent litigation in federal court.

Before the PTAB, however, Article III standing is not a requirement because the case or controversy requirement does not apply to proceedings before federal agencies. Thus, the AIA allows parties without any concrete interest in the patent to question the patent’s validity. This creates several problems.

First, without a standing requirement, litigants lack the concrete interest to devote full resources for a robust patent challenge. A party with no risk of liability of infringement has little interest in ensuring a full and complete test of the patent claims. As the Supreme Court has explained, the exercise of judicial power “is not to be placed in the hands of ‘concerned bystanders,’ who will use it simply as a ‘vehicle for the vindication of value interests.’” "Concerned bystanders" may have a general interest, but they suffer no actual harm if they fail to cancel the patent claims. They suffer no consequences for poor advocacy. This results in false positives, i.e., patent claims being upheld even though they should be cancelled and likely would have been cancelled if a party with a real interest had challenged the patent.

Second, the lack of a standing requirement in AIA post-grant reviews leads to appellate asymmetry. Patent challengers can sometimes participate in an appeal of a PTAB final written decision, but sometimes not. While a party need not have Article III standing for an AIA post-grant review, it must have standing to appeal the final decision to the Federal Circuit. But, under a recent Federal Circuit decision, a PTAB patent challenger need not have standing to be

an appellee.\textsuperscript{42} Under current law, therefore, if a patent challenger without Article III standing wins at the PTAB, it can always participate in an appeal, but if the party loses, it cannot appeal.

This asymmetry is detrimental to creating a uniform body of patent law. PTAB decisions can create rules of law that bind the PTO in future cases.\textsuperscript{43} Some PTAB decisions will be wrong, and the appellate process will correct those decisions. But if decisions are shielded from appellate review because the patent challenger lacks Article III standing, those incorrect PTAB decisions will infect future proceedings.

Third, the lack of a standing requirement puts the Federal Circuit in the awkward position of having to conduct, in the first instance, factfinding about standing.\textsuperscript{44} Before the PTAB, the parties have no reason or ability to develop the evidence necessary to establish or dispute a petitioner’s standing. A dispute about standing only arises when appealed to the Federal Circuit, and the appeals court must then attempt to resolve the dispute through motions practice, which is far from optimal for making factual findings. This process also unnecessarily increases the workload on the court.

Fourth, without a standing requirement, certain entities have abused the AIA review process by filing post-grant petitions with the intention of manipulating stock prices. One well-known hedge fund manager sought to “fil[e] and publiciz[e] patent challenges against pharmaceutical companies while also betting against their shares.”\textsuperscript{45} AIA post-grant proceedings might be a legitimate means to cancel patents, including pharmaceutical patents, but the administrative resources of the PTO should not be made a mechanism for short-term financial gains through a short-selling campaign.

These problems can be solved by requiring a PTAB petitioner to have standing under Article III. The Federal Circuit has developed a robust body of case law applying the standing requirement to patent actions. If a party has been sued for patent infringement, standing to initiate a PTAB post-grant review will exist. If a party has not been sued for infringement, the petitioner can still

\textsuperscript{44} Amy J. Wildermuth & Lincoln L. Davies, Standing, On Appeal, 2010 Univ. Ill. L. Rev. 957, 968 (2010) (“Because appellate courts are on foreign ground when they are faced with factual-based standing questions, the procedures they have created for the cases they normally hear are unlikely to work.”).
establish standing under well-developed Federal Circuit precedent in the context of declaratory judgment actions.\textsuperscript{46}

Alternatively, Congress could adopt the standing requirement currently applied in covered business method (“CBM”) reviews. A CBM review can only be sought by a “person or the person’s real party in interest or privy [who] has been sued for infringement of the patent or has been charged with infringement under that patent.”\textsuperscript{47} This approach is administratively simpler and will not require the PTAB to make extensive findings about standing.

II. Amend 35 U.S.C. § 101 to Remove the Uncertainty in Patent-Eligibility Law

“A too restrictive test for patent eligibility under 35 U.S.C. § 101 with respect to laws of nature (reflected in some of the language in \textit{Mayo}) might discourage development and disclosure of new diagnostic and therapeutic methods in the life sciences, which are often driven by discovery of new natural laws and phenomena.”\textsuperscript{48} So wrote Judge Dyk of the Federal Circuit, and the problems of an overly restrictive patent-eligibility test continue unabated.

The Supreme Court has continued its use of vague and undefined terms, such as “abstract concepts,” “natural law or phenomenon,” and “significantly more.” These terms are not in the patent statute and have never been adequately defined in any of the recent cases, such as \textit{Bilski}, \textit{Mayo}, or \textit{Alice}. No court has been able to define—even modestly—the term “abstract.”\textsuperscript{49} The Court clings to vapid terminology based on dicta from its older cases. With biotech cases, the Court seems unable or unwilling to apply the plain language of the statute and has grown unduly aggressive on policy issues better left for Congress. These fundamental deficiencies with the Court’s Section 101 jurisprudence are adversely affecting high-tech, biotech, pharma, and ubiquitous software-implemented technologies.

A prime example of the disorder in patent-eligibility law is the case of \textit{Ariosa Diagnostics, Inc. v. Sequenom, Inc.}\textsuperscript{50} The claimed medical diagnostic method employed a groundbreaking discovery, contrary to conventional wisdom, that one could analyze paternally inherited cell-free DNA of a fetus isolated from the mother’s blood during pregnancy. Doctors could use this new method to perform genetic tests on an unborn child without having to carry out a risky

\textsuperscript{46} \textit{E.g.}, \textit{MedImmune, Inc. v. Genentech, Inc.}, 549 U.S. 118 (2007); \textit{Organic Seed Growers & Trade Ass’n v. Monsanto Co.}, 718 F.3d 1350, 1359-60 (Fed. Cir. 2013).
\textsuperscript{47} AIA § 22(a)(1)(B).
\textsuperscript{48} \textit{Ariosa Diagnostics, Inc. v. Sequenom, Inc.}, 809 F.3d 1282, 1287 (Fed. Cir. 2015) (Dyk, J., concurring in denial of rehearing en banc).
\textsuperscript{50} \textit{Ariosa Diagnostics, Inc. v. Sequenom, Inc.}, 809 F.3d 1282 (Fed. Cir. 2015) (precedential order denying rehearing en banc); \textit{Ariosa Diagnostics, Inc. v. Sequenom, Inc.}, 788 F.3d 1371 (Fed. Cir. 2015) (panel decision).
amniocentesis procedure. The claimed method, according to the undisputed evidence, was a significant and widely praised breakthrough. Yet, the court felt constrained by Supreme Court precedent and therefore held that this groundbreaking, life-saving invention was not the type of innovation that could be protected by patents—even if novel and nonobvious.

The same confusion exists in decisions about software-related inventions. Trying to bring some semblance of order, the Federal Circuit has issued rulings that are difficult, if not impossible, to reconcile. In cases, such as Thales Visionix Inc. v. United States, Amdocs (Israel) Ltd. v. Openet Telecom, Inc., Enfish, LLC v. Microsoft Corp., and DDR Holdings, LLC v. Hotels.com, L.P., the court upheld the patent eligibility of claims directed to software inventions. In many more, such as RecogniCorp, LLC v. Nintendo Co., Synopsys, Inc. v. Mentor Graphics Corp., and Evolutionary Intelligence LLC v. Sprint Nextel Corp., the court struck down similar claims to computer-based inventions. Particularly troubling is when validly issued patent claims are stricken in district court at the pleading stage, without regard to construing the patent claims. We have also seen conflicting outcomes when patents are adjudicated at the PTAB versus in district court, with one tribunal affirming the patent while the other invalidates the patent.

Overall, the law has created unacceptable chaos for inventors, innovators, business, and investors. Legal chaos is the exact opposite of what the U.S. economy needs. Ideally, the courts would solve the problems created by their “judicial exceptions” to the statutory language, but the U.S. economy can no longer wait for the courts. Congress must act.

Congress must amend 35 U.S.C. § 101 so that the boundaries of patent-eligible subject matter are clear. Furthermore, the amendment must limit the reach of so-called “judicial exceptions” to the statutory text. Such judge-made exceptions frustrate the intent and will of Congress. It is Congress’s prerogative to delineate the national policy for protecting U.S. innovation.

Specifically, I propose the following amendments:

- Amend § 101 to recognize that a patent claim with a physical aspect or element necessarily satisfies patent eligibility.

- Amend § 101 to clarify that processes containing solely mental steps are not patent eligible.

- Amend § 101 by adding the following: “Eligibility shall not be denied based on any judicially-imposed exceptions.”

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51 850 F.3d 1343 (Fed. Cir. 2017).
52 841 F.3d 1288 (Fed. Cir. 2016).
53 822 F.3d 1327 (Fed. Cir. 2016).
54 773 F.3d 1245 (Fed. Cir. 2014).
55 855 F.3d 1322 (Fed. Cir. 2017).
56 839 F.3d 1138 (Fed. Cir. 2016).
The proposed amendments would solve most, if not all, of the current problems associated with § 101 court decisions. First, if a patent claim recites a physical aspect or element, the claimed invention as a whole must, in fact, be a tangible composition or device that falls within the current statutory classes of “machine, manufacture, or composition of matter.” Further, a process, including a computer-based or software-based process, will be patent-eligible if not solely a mental process and if it uses a physical device.

Patentability will still be restricted based on the novelty and nonobviousness requirements. Patent claims must still satisfy the written description, enablement, and definiteness requirements. These statutory requirements are the best gatekeepers for the patenting process. Indeed, many § 101 decisions are, at base, premised on § 102 (novelty) and § 103 (nonobviousness), but without the careful analyses those statutory sections require.

Alternative amendments to § 101 have recently been proposed. The ABA IP Section, AIPLA, and IPO have each proposed specific amendments to § 101. Those proposals have merit as well. I, of course, leave it to Congress to decide the specific statutory language needed to return clarity to patent-eligibility law. In my view, the goal should be to amend the statute as concisely as possible to establish a bright-line definition of what subject matter is eligible for patent protection and what is not.

III. Amend 28 U.S.C. § 1400(b) to Define “Regular and Established Place of Business” for Purposes of Venue in Patent Litigation

Congress has authorized that “[a]ny civil action for patent infringement may be brought in the judicial district where the defendant resides, or where the defendant has committed acts of infringement and has a regular and established place of business.” On May 22, the Supreme Court in TC Heartland LLC v. Kraft Foods Group Brands LLC addressed half of the statute when it held that “resides” “refers only to the State of incorporation.” The decision led to a spate of district court decisions with differing reasoning and results.

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58 See, e.g., Leapfrog Enters., Inc. v. Fisher-Price, Inc., 485 F.3d 1157, 1161 (Fed. Cir. 2007).
59 Cf. Diamond v. Diehr, 450 U.S. 175, 188-89 (1981) (“The ‘novelty’ of any element or steps in a process, or even of the process itself, is of no relevance in determining whether the subject matter of a claim falls within the § 101 categories of possibly patentable subject matter.”).
More importantly, the *TC Heartland* case answered only half of the venue question for patent litigation. *TC Heartland* had no reason to consider what is meant by “regular and established place of business.” For that reason, and as I explain here, Congress ought to define statutorily the phrase “a regular and established place of business.”

Shortly after the *TC Heartland* decision, Judge Gilstrap had the opportunity to rule on a motion to transfer based on venue in a pending litigation, *Raytheon Co. v. Cray, Inc.* In *Raytheon*, Judge Gilstrap denied Cray’s motion to transfer. Consistent with *TC Heartland*, the court held that “Cray is incorporated in the State of Washington” and “[a]ccordingly, Cray does not reside in this District within the meaning of § 1400(b).”

Judge Gilstrap then continued with the § 1400(b) analysis. He reviewed the case law since the Federal Circuit’s decision in *In re Cordis Corp.* and provided his synthesis of the applicable precedent as a four-part test. He then held that venue was proper under the second prong of § 1400(b), namely that “Cray has committed acts of infringement and has a regular and established place of business” in the Eastern District of Texas.

Judge Gilstrap’s decision attracted ample attention in the legal and business communities. This Committee itself took notice of the *Raytheon* decision, particularly during the hearing on July 13. Judge Gilstrap’s decision was criticized by some and approved by others. My point here is not to critique the “correctness” or “incorrectness” of the decision. I merely point out that Judge Gilstrap’s opinion addressed a legal issue that was not directly addressed by *TC Heartland*, and, given the existing precedent and the broad statutory language, there appear to be reasonable arguments for and against Judge Gilstrap’s conclusion, based on the particular facts presented in the case. I also note that the Federal Circuit is poised to rule on a mandamus petition in the *Raytheon* case, so we will soon have additional guidance.

Even so, we will see more disputes over venue in patent litigation without a statutory definition for the phrase “a regular and established place of business.” Absent a definition, litigants will continue to fight over the precise scope of the phrase, and venue decisions for patent litigation may not reflect Congress’s policy choice about where patent cases ought to be litigated.

Crafting an acceptable statutory definition will require careful consideration of competing factors. Imposing too many restrictions will unduly limit choice of venue for patent owners, may unnecessarily increase costs for enforcing valid patent rights, and could waste judicial resources. At the same time, a statute with too little guidance on the meaning of “a regular and established place of business” will impose too many restrictions.

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64 See 28 U.S.C. § 1400(b).
66 *769 F.2d 733 (Fed. Cir. 1985).*
place of business” leaves the statute too flexible, thereby creating possible venue in almost any district and thus frustrating the apparent rationale of TC Heartland.

To that end, I recommend that Congress adopt as soon as possible specific statutory amendments to § 1400(b) in order to provide the necessary contextual guidance of what falls within “a regular and established place of business.”

I suggest adopting language that makes clear that a regular and established place of business does not include a location in which a company merely has transient employees and activities. A regular and established place of business should also not include locations where a limited number of employees work remotely or telework. If having merely a handful of transient or remotely-working employees is sufficient to create “a regular and established place of business,” many companies will be subject to patent infringement actions in districts throughout the United States, even though they conduct little actual business in the districts.

Congress should also specify that certain activities are sufficient to establish “a regular and established place of business.” If a business has regular physical facilities, such as a factory, warehouse, research laboratory, retail outlet, and the like, then those facilities would be sufficient to establish venue.

As I noted above, careful study is necessary to find the optimal language for defining the boundaries of the phrase “regular and established place of business.” I leave it to Congress to explore the precise language it should adopt.

Last year, Senator Flake introduced the Venue Equity and Non-Uniformity Elimination Act of 2016 (“VENUE Act”). The VENUE Act offered modifications to § 1400(b) along similar lines to what I recommend here. While I do not at this time endorse wholesale the VENUE Act, the language of the proposed amendments is instructive and can offer guidance to the Committee when crafting its amendments to § 1400(b).

In relevant part, under the VENUE Act, venue would be limited to:

1. where the defendant has its principal place of business or is incorporated;
2. where the defendant has committed an act of infringement of a patent in suit and has a regular and established physical facility that gives rise to the act of infringement;
3. where the defendant has agreed or consented to be sued in the instant action;
4. where an inventor named on the patent in suit conducted research or development that led to the application for the patent in suit;
5. where a party has a regular and established physical facility that such party controls and operates, not primarily for the purpose of creating venue, and has—

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68 S. 2733 (Mar. 27, 2016).
(A) engaged in management of significant research and development of an invention claimed in a patent in suit prior to the effective filing date of the patent;

(B) manufactured a tangible product that is alleged to embody an invention claimed in a patent in suit; or

(C) implemented a manufacturing process for a tangible good in which the process is alleged to embody an invention claimed in a patent in suit; . . .

From the above list, subsection (1) is resolved by TC Heartland. I agree with subsection (2). If the defendant committed an act of infringement in a district and has an established physical facility giving rise to the act of infringement, there should be little disagreement that venue is proper in that district, except I would delete the phrase “that gives rise to the act of infringement.” The provision already requires a connection between the location of the infringement and the company, and the cited language is unduly restrictive.

Regarding subsection (3), there is little dispute that venue is proper where a defendant “has agreed or consented to be sued in the instant action.” Under established law, venue is a personal privilege, which a defendant “may assert, or may waive, at his election.” Under the Federal Rule of Civil Procedure 12(h), if a party does not raise an objection to venue pursuant to Rule 12(b)(3), the party waives the defense. Accordingly, the proposed subsection (3) is not necessary.

Subsection (4), while seemingly simple, raises concerns. Venue primarily focuses on the litigants to the civil action, whereas this proposal ties venue to the location of an individual who may not be party to the suit. Further, there may be a long temporal gap between the inventor’s research activities and the time of suit. By the time a suit is filed, the location of the inventor’s original research activity may be completely irrelevant to the parties and the infringement.

Subsection (5) provides useful limitations beyond what is in the current statute, but it may go too far by excluding business locations that conduct the regular business of a company but that do not necessarily manufacture “a tangible good.”

Ultimately, defining “a regular and established place of business” is a balance between under-inclusiveness and over-inclusiveness. With further input from interested parties, I am confident that this Committee can draft an amendment to § 1400(b) that adequately balances the interests of innovators, patent owners, businesses, and other entities involved in the patent system.

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69 Id.
IV. PTO Fee Collections Must Remain with the PTO

I have written and spoken extensively about the problems PTO fee diversion causes.\textsuperscript{71} This is a continuing problem which, unfortunately, the AIA has not resolved.

According to a report by the Intellectual Property Owners Association, from 2010-2014, a total of $409.8 million in PTO user fees was collected by the PTO but diverted to non-PTO uses. In 2011, the largest amount ever—$209 million—was diverted from the PTO. This diversion is a \textit{de facto} tax on American innovation because funds paid by inventors and innovators are used for other governmental purposes.\textsuperscript{72}

The AIA included provisions designed to minimize the amount of PTO revenue diverted to non-PTO uses.\textsuperscript{73} But this compromise failed, as just two years later, the PTO lost $147.7 million of fees paid by PTO users.

The PTO has currently requested a budget of $3.586 billion for fiscal year 2018:

For FY 2018, the USPTO requests the authority to spend fee collections of $3,586M. Along with $29M from other income, these fee collections will fund operating requirements of $3,501M, including 13,249 full-time equivalents (FTE); a transfer of $2M to the DOC Office of the Inspector General (OIG); and the addition of $113M to the OR balance, as shown in the following table. With full access to its fee collections to offset its funding requirements, the USPTO’s FY 2018 net appropriation would be $0.\textsuperscript{74}

The entirety of the PTO’s requested budget should be authorized solely for use by the PTO, rather than being diverted to other federal uses. Congress should also permanently and legislatively end the diversion of user fees from the PTO.


\textsuperscript{73} AIA § 22 (codified at 35 U.S.C. § 42(c)).

V. Authorize Technical Support Staff for District Judges Participating in the Patent Pilot Program

Congress should authorize technical support staff for federal district court judges who participate in the Patent Pilot Program. Additional technical support staff for judges participating in the Patent Pilot Program would aid judges in understanding complex patent cases and assist with the efficient disposition of those cases.

The Patent Pilot Program was established in 2011.\(^{75}\) The legislation’s purpose was “[t]o establish a pilot program in certain United States district courts to encourage enhancement of expertise in patent cases among district judges.”\(^{76}\) Under the Patent Pilot Program, participating district courts can assign new patent cases to judges who have been designated as Patent Pilot Program judges. The chief judge of each participating district designates district judges to handle patent cases under the program.

According to the 2016 report by the Administrative Office of the U.S. Courts, the Patent Pilot Program has achieved many of its intended objectives:

- Of the 270 active and senior district judges with at least one patent case, 66 (24%) were participating in the PPP as “designated judges” as of our January 5, 2016, data pull.
- Over the life of the PPP, judges serving as designated judges have more experience with patent litigation than their nondesignated counterparts. Designated judges had more patent litigation experience when the PPP began, and also received more patent cases because of their participation in the program, as compared to nondesignated judges.
- More than three quarters (76%) of all patent cases filed in pilot districts since the start of the PPP were before a designated judge. Nondesignated judges frequently transfer their randomly assigned cases to designated judges.
- Cases before designated judges are terminated faster than those before nondesignated judges.
- Cases before designated judges are as likely to result in appeals as those before non-designated judges, and cases of both types that are appealed tend to be affirmed.\(^{77}\)

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\(^{76}\) Id.

The Patent Pilot Program would achieve even further success if the participating judges could hire additional technical staff. The technical staff, such as another law clerk with an advanced scientific degree, would be a critical resource for the Patent Pilot Program judges.

Authorizing technical staff of Patent Pilot Program judges would merely make more readily available a practice that judges and patent litigants adopt on occasion when they use “special masters” or neutral technical experts. Under Federal Rule of Civil Procedure 53, the district court can appoint a special master to handle many aspects of litigation. Although using a special master provides significant benefits to the district court, many courts do not use them frequently.78 One former district court judge has explained that special master appointments “are very beneficial in resolving disputes quickly, streamlining discovery, handling delicate settlement negotiations, and—somewhat surprisingly—reducing cost and delay.”79

Similarly, a district court judge can appoint a neutral technical expert under Federal Rule of 706. Such neutral technical experts have been used in patent and other types of cases.80

Providing Patent Pilot Program judges with additional technical staff would achieve many of the benefits associated with using special masters and court-appointed experts. This proposal would push the Patent Pilot Program forward and create further efficiencies in the judicial management of complex patent litigation.

VI. The PTO Director Must Be Qualified and Admitted to the Patent Bar

Leadership is key to the success of any federal agency, and the PTO is no different. It is critically important that the President and Congress select the best individuals to run the agency. Yet, the PTO is not a typical federal agency. The PTO is entrusted with the evaluation of the most important technological developments in the world. Numerous patented inventions have gone on to become the basis for awarding the top prizes in science and technology, such as the Nobel Prize. Inventions in other areas, first disclosed to the PTO, have fundamentally changed our society. Google, for example, revolutionized the way we think about information searching, storage, and availability. And like many tech companies, Google’s birth traces back to two U.S. patents filed by Google’s founders, Sergey Brin and Larry Page.81

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79 Id.
81 United States Patent Nos. 6,678,681 and 6,285,999.
We need the best and brightest to lead the PTO. I have written more generally about the ideal attributes for the next PTO Director.\textsuperscript{82} I emphasize one further point here: The PTO leadership must be qualified to understand the technological advances with which the PTO is entrusted.

Accordingly, I recommend that the Director of the PTO must be an individual who is admitted to practice before the PTO and thus has a patent bar registration number. This requirement will ensure that the PTO Director has the technical education and knowledge to fully execute the mission of the PTO. While the PTO Director need not be an expert in any specific technical field, having a technical and scientific education is critical to effective leadership.

Requiring the PTO Director to be a registered patent attorney (or agent) would also build confidence in the PTO workforce. A substantial number of PTO employees, including PTO examiners, hold advanced degrees, such as M.S. and Ph.D. degrees in the sciences. Those employees would be best served if they knew that the PTO director had the necessary scientific training to practice before the Office.

My recommendation would bring PTO leadership in line with leadership at other federal agencies whose work involves highly technical and important advances in science, such as the National Institutes of Health (“NIH”) or the Food and Drug Administration (“FDA”). Both the NIH and the FDA have a large employee base, many of whom possess advanced scientific degrees. The activities of both the NIH and the FDA are largely directed to issues involving complex scientific developments and advances.

The individuals chosen to lead the NIH and FDA embody the importance of having scientific and technical fluency in those positions. The current director of the NIH is Francis S. Collins, M.D., Ph.D., a physician-geneticist noted for his landmark discoveries of disease genes and his leadership of the Human Genome Project prior to his directorship.\textsuperscript{83} Previous NIH directors include: Elias A. Zerhouni, M.D. (2002-2008), a world-renowned leader in the field of radiology and medicine; Dr. Harold E. Varmus (1993-1999), a winner of the Nobel Prize in 1989 for his work in cancer research; and Bernadine Healy, M.D. (1991-1993), a renowned cardiologist who was chairman of the Research Institute of the Cleveland Clinic Foundation, where she directed the research programs of nine departments including efforts in cardiovascular disease, neurobiology, immunology, cancer, artificial organs, and molecular biology.\textsuperscript{84}

The same qualified leadership has been at the FDA. The current director is Scott Gottlieb, a physician, medical policy expert, and public health advocate who previously served as the FDA's


Deputy Commissioner for Medical and Scientific Affairs and before that, as a senior advisor to the FDA Commissioner. Previous FDA commissioners include: Robert Califf, M.D.; Margaret Hamburg, M.D.; and Andrew C. von Eschenbach, M.D. The first FDA commissioner was a medical doctor, and all FDA commissioners since 1965 had either a medical degree or a Ph.D. degree.

Over the years, the PTO has had capable directors, but appointments of PTO leadership have at times fallen victim to the traditional political-appointments process—meaning that the PTO directorship can be used as a political favor instead of as a position for the best qualified individual.

In my opinion, David Kappos embodied the attributes of an excellent PTO Director. He came from a long, highly successful career at IBM, where he ran a large operation that depended on using patent skills both for protecting patented inventions and defending against patent assertions by others. He became a patent agent in 1990 and has been a registered patent attorney since 1991.

The most recent PTO Director, Michelle K. Lee, also had the technical qualifications necessary for the position. Ms. Lee earned a B.S. in electrical engineering and an M.S. in electrical engineering and computer science from the Massachusetts Institute of Technology in 1989. She earned her law degree from Stanford University School of Law in 1992, and she is a registered patent attorney, authorized to practice before the PTO.

In sum, to best serve the public and the PTO employees, the PTO Director must be admitted to the patent bar and be registered to practice before the PTO. There are numerous qualified individuals who could fill the current vacancy and satisfy this requirement.

VII. Empower PTO Leadership to Maintain Quality Employees

PTO leadership must be empowered to make the difficult decisions necessary to lead the agency entrusted with protecting the nation’s innovation. In recent years, the PTO Director has been unnecessarily hampered by the burdensome rules governing employee misconduct and responsibility. PTO leadership must have the necessary authority and tools needed to provide quality examinations of patent applications. PTO leadership should be given more authority to reward excellent employees and to discipline improper employee conduct.

**Rewarding Excellent Employees:** The PTO Director should be encouraged and, to the extent necessary, given additional authorization (delegable as far as Assistant Commissioner) to award sufficient cash bonuses to the very best performers in the examining corps and not to exceed 5% of examiners per annum.

Federal agencies are generally authorized to provide various incentives, recognitions, and awards to high-performing employees. The PTO Director should be fully authorized to incentivize top

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85 See U.S. Food & Drug Administration, *Meet Scott Gottlieb, M.D., Commissioner of Food and Drugs*, at [https://www.fda.gov/AboutFDA/CentersOffices/ucm557569.htm](https://www.fda.gov/AboutFDA/CentersOffices/ucm557569.htm).
performance of patent examiners. This will directly improve patent examination, which in turn will address many of the concerns voiced about the so-called “patent quality” problem.

As explained by the Office of Personnel Management:

Agencies have discretionary authority to grant an employee a lump-sum cash award based on a “Fully Successful” or better rating of record. These are called rating-based cash awards. These cash awards do not increase an employee's basic pay. Awards based on the rating of record can be up to 10 percent of salary, or up to 20 percent for exceptional performance. (5 U.S.C. 4302, 4503, 4505(a); 5 CFR 451.104)

Agencies may also grant other cash awards. A cash award can be granted to an employee, individually or as a member of a group, in recognition of accomplishments that contribute to the efficiency, economy, or other improvement of Government operations. Agencies may grant up to $10,000 without external approval, up to $25,000 with Office of Personnel Management (OPM) approval, and in excess of $25,000 with Presidential approval. (Department of Defense (DoD) does not require OPM approval for awards up to $25,000, but awards over $25,000 must be approved by the President.) Award payments are subject to the aggregate limitation on total pay equal to the rate of pay for Executive Level I. (5 U.S.C. 45; 5 CFR 451)

Under the applicable statutes and rules, the PTO Director is authorized to use cash bonuses to reward stellar employees in the appropriate manner. I understand that the PTO has used cash bonuses, to some extent, in the past. It appears, however, that any cash bonus is primarily tied to “examiner productivity,” meaning the well-known “count system.” Examiner productivity measurements are too strictly linked to the amount of work performed, i.e., the number of counts, and not to the quality of work. To be effective as an incentive for quality employees, cash bonuses cannot be dependent solely to the number of patent applications examined.

It may be that the dollar amounts permissible under current rules or the applicable union agreement are insufficient to adequately reward the highly skilled PTO employees. If that is so, the rules should be revised to empower the PTO Director with wider discretion in granting cash bonuses.

**Responding to Employee Misconduct:** The PTO Director and top leadership must have the authorization to dismiss employees, particularly examiners, when it is determined that the employees have committed egregious misconduct. This authorization is necessary to maintain the full faith of Congress and the taxpayers, and to efficiently conduct PTO business.

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According to a Washington Post story, the PTO is still trying to remove or suspend eighteen employees years after their misconduct.\footnote{Lisa Rein, “\textit{You’re Fired}” may be Harder than Trump Thinks When It Comes to Federal Workers, Wash. Post, Aug. 21, 2017, at \url{https://www.washingtonpost.com/politics/youre-fired-may-be-harder-than-trump-thinks-when-it-comes-to-federal-workers/2017/08/21/6dd0c4c4-7c5f-11e7-83c7-5bd5460f0d7e_story.html}.}

After a three-year investigation, the office has moved recently to fire or suspend 18 of about two dozen employees in a clerical support unit that docket trademark applications, according to current and former agency staff and other government officials familiar with the case. One worker has been fired.\footnote{\textit{Id.}}

It should not take three years to terminate or suspend employees who egregiously failed to adhere to their terms of employment. PTO personnel who engage in a pattern of actively falsifying time and attendance records should be subject to automatic dismissal.

Congress should empower the Director, the Deputy, and the Commissioner to deal with bad actors. An examiner, including a Supervisory Patent Examiner (SPE), should be subject to transfer to lesser duties, without their consent, at the discretion of any of the top three officials, if it is determined that the examiner is not satisfying the duties of his or her position.

\textbf{Examiner Training:} Training and continuing education of examiners—both new and current—must be improved to include the relevant patent legal issues, including claim construction and 35 U.S.C. § 112.

Many patent examiners begin their career without any formal legal education. Many start straight from graduate school, after earning an M.S. or Ph.D. degree. Patent examiners do not need a full law degree to excel in their positions. Patent examiners must be versed in their specific technology areas. Indeed, they often know the technology better than many patent attorneys and agents who represent inventors.

However, as recent experience has shown, complex legal issues are a growing facet of patent prosecution. Claim construction, while always an issue in patent prosecution, has grown
increasingly complex, in part due to the now-confusing dichotomy of the broadest reasonable construction (or broadest reasonable interpretation, or “BRI”)

Accordingly, examiner training must be supplemented to include additional education about the critical legal issues that affect patent scope and validity.

VIII. Answers to Specific Queries from Chairman Issa

At the end of the July 13 hearing, Chairman Issa noted several points for further consideration. I addressed most in detail above. A few further concise responses are provided below.

Question 1: Should the Covered Business Method (CBM) review be extended or made permanent?

Answer: No.

As Congressman Issa noted at the end of the hearing, the CBM review was intended to be a temporary measure to respond to a specific subset of patents. The “transitional” program was added solely to affect patents granted in the late 1990s and very early 2000s shortly after the 1998 decision in State Street Bank because the PTO needed time to acquire non-patent prior art in the field of software-related inventions. The final Committee Report observed:

A number of patent observers believe the issuance of poor [quality] business-method patents during the late 1990’s through the early 2000’s led to the patent “troll” lawsuits that compelled the Committee to launch the patent reform project 6 years ago. At the time, the USPTO lacked a sufficient number of examiners with expertise in the relevant art area. Compounding this problem, there was a dearth of available prior art to assist examiners as they reviewed business method applications.

Ample time has since passed, the relevant prior art has been collected, and examiner expertise has increased. The PTO has also taken steps to further improve its ability to search and identify prior art. For instance, in 2014, the PTO solicited input regarding the use of crowdsourcing to identify prior art. There is no longer any justification to extending the program beyond 2020, the expiration date set by Congress.

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91 Phillips v. AWH Corp., 415 F.3d 1303, 1314 (Fed. Cir. 2005) (en banc).
92 AIA § 18.
Question 2: Should IPR be expanded to include other Patent Act requirements, such as eligibility under Section 101, sales or public uses under § 102, or indefiniteness under § 112?

Answer: No.

Patent eligibility under § 101 is now routinely raised at the very outset of any infringement suit and immediately and inexpensively adjudicated for far less than the cost of litigating an IPR and far faster as well. So there is absolutely no need or justification for such an expansion of IPRs. Furthermore, with the current disarray in patent eligibility law, as I noted above, adding § 101 would only complicate AIA post-grant reviews.

Second, IPR should not be expanded to include invalidity challenges based on sales or public uses under § 102. These issues would require extensive and expensive discovery, slowing disposition of such reviews and greatly adding to their cost and complexity, often requiring live testimony of multiple witnesses. Including these patent validity issues would run counter to Congress’s intent that IPRs be a faster, cheaper alternative to district court litigation.

Third, as with eligibility, indefiniteness under § 112 is now raised by preliminary motion at the very start of any infringement suit. It can be quickly and inexpensively adjudicated through the claim construction process. There is no sensible reason to expand IPR to include indefiniteness under § 112.

Question 3: Does damages law need to be revised to deal with the situation of claims narrowed after a suit is initiated but before final judgment?

Answer: No.

The present law precludes a patent owner from obtaining damages for products that do not infringe the present claims although they did infringe the previous, broader claims that were subsequently cancelled at the PTO. As I touched on above, the Federal Circuit has developed a robust body of case law that addresses the doctrine of intervening rights. This settled law can be applied in the AIA context, including the reexamination off-ramp.