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Senator Richard J. Durbin
Chair, Committee on the Judiciary
United States Senate
Washington, DC 20510-6275

Re: Response to Questions for the Record -- Intellectual Property Subcommittee Hearing, "Protecting Real Innovations by Improving Patent Quality", June 22, 2021

Dear Senator Durbin,

I thank you for the opportunity to provide written responses regarding my testimony at the Intellectual Property Subcommittee Hearing, "Protecting Real Innovations by Improving Patent Quality" on June 22, 2021. My responses to the questions posed by Chair Leahy and Senator Tillis are set forth below. I would be happy to answer any additional questions that you or any members of the Subcommittee may have.

Questions from Senator Patrick Leahy

1. The tradeoff for getting the monopoly powers of a patent is that you have to disclose everything about your invention. Given that it is the public against whom these monopoly powers are exercised, any member of the public should be able to look up any patent and see who the current owner is. But that's not the case today.

   a. Would it help the public if patent owners were required to record the ownership status of their patents at the PTO so that the public knows who exactly is being granted the monopoly powers of a patent and who stands to benefit from any real or threatened litigation?

   Response: Yes, the dearth of publicly available patent ownership information is well known, and numerous commentators have observed that this lack of transparency can facilitate various abuses.[1] *I fully support the proposals made by prior commentators that beneficial ownership of patents, both initially and upon transfer, be recorded at the PTO, and that failure to record this information on a timely basis be grounds for revocation of a patent. In addition, I have proposed a more substantial "annotation" system for patents*

[1] Jonathan Stroud & Levi Lall, *Paper of Record: Modernizing Ownership Disclosures for U.S. Patents*, 124 W. VA. L. REV. 449 (2022), Lisa Larrimore Ouellette & Heidi Williams, *Reforming the Patent System*, HAMILTON PROJECT (2020), Nathan P. Anderson, *Striking a Balance The Pursuit of Transparent Patent Ownership*, 30 BERKELEY TECH. L.J. 395 (2015).

based on the well-known practice of "Shepardizing" judicial decisions in order further to increase transparency regarding patent assets in the market.[2]

2. During the hearing, there was discussion of some of the quality metrics found in the USPTO's Fiscal Year 2020 Performance and Accountability Report (https://www.uspto.gov/sites/default/files/documents/USPTOFY20PAR.pdf). In particular, there was a statement that the report concluded that examiners apply the statutory patentability requirements correctly about 93% of the time. This appears to be a reference to the Patent Correctness Indicators that are found on page 67 of the report, which do indicate that examiners on average apply each of four separate statutory requirements correctly about 93% of the time. More specifically, it concludes that examiners apply section 101 correctly 97.7% of the time; section 102 correctly 94.3% of the time; section 103 correctly 88.9% of the time; and section 112 correctly 90.6% of the time.

   I want to make sure that the Subcommittee correctly understands the implications of these statistics. My understanding is that because an examiner would have to apply every one of the four statutory requirements correctly in order to correctly examine an application, these statistics indicate a per application accuracy rate that is significantly lower.

   a. Is that the correct understanding of the Patent Correctness Indicators?

      Response: Yes, I believe this interpretation is correct. In order for an application as a whole to be "correctly" examined, examination must be "correct" under each of Sections 101, 102, 103 and 112.

   b. What is an accurate assessment, using the Patent Correctness Indicator numbers, of the accuracy rate per application, applying all four statutory criteria?

      Response: The information presented in the Performance and Accountability Report is insufficient to make an independent determination of per-application accuracy, as the distribution of "incorrect" examinations among applications is not disclosed. As presented, the 93% accuracy figure, which seems to be a simple unweighted average of the four per-section accuracy percentages, would only be meaningful if the same number of applications had each of the four error types, which seems unlikely.

   c. Is there some other metric by which you would prefer to measure the accuracy rate—for example by looking at all patent claims whose validity is assessed by a court over a certain window of time and comparing the rate of final adjudications, by claim, confirming validity to the total number of final

[2] Jorge L. Contreras, *Shepardizing Patents*, Patently-O, (Jun. 16, 2021), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3868513.

adjudications, by claim—and what is the accuracy rate under your preferred metric?

Response: *There are numerous potential measures of examiner accuracy. The accuracy measures presented in the Performance and Accountability Report are useful inasmuch as they give an overall picture of the degree to which examiners comply with PTO examination procedures. A low degree of compliance indicates areas in which PTO training of examiners should be enhanced or rules should be clarified. Moreover, individual performance against these criteria (even though not presented in the Performance and Accountability Report) could be used to identify examiners in need of enhanced training or otherwise for performance incentive purposes.*

However, while low "accuracy" results clearly indicate a need for improvement in the examination process, high accuracy results do not necessarily indicate that examinations are of "high" quality. This is because, based on my understanding of the measures, the reviewers do not undertake an independent examination of the applications at issue, nor search for nor substantively engage with prior art references. Thus, even if an examiner complies with relevant procedural requirements during examination, there is no assurance that the examiner is performing well (i.e., identifying relevant prior art, applying proper reasoning to the applicant's arguments, framing responses in the most effective manner, etc.)

As such, other measures of examiner effectiveness could be used. As the Senator suggests, judicial determinations of claim validity are probably the best indicators of claim quality. Yet there are comparatively few claims that reach a final judicial determination of validity. A larger sample size could be obtained by looking instead at PTAB evaluations of challenged claims. Yet both judicial and PTAB determinations are skewed toward patents and claims that are commercially valuable and thus motivate private challenge.

Perhaps it is useful to focus primarily on commercially valuable claims, as there are fewer market-wide implications of low-quality patents that are not commercially valuable. However, if there is a desire to evaluate examiner performance generally, the PTO could establish a more rigorous internal evaluation process in which randomly selected applications are examined by an independent examination team, at least to the stage of an initial office action, but possibly through allowance or final rejection (an analogy to this process is the IRS taxpayer audit). Such a second examination could identify areas in which the first examiner's work was lacking and thus form a more complete basis for assessing the accuracy of the examination process.

3. As you know, if the PTO wants to reject a patent application, many, many people will review that proposed rejection. If the applicant disagrees with an examiner's

rejection, she can appeal to the Patent Trial and Appeal Board, where three different administrative patent judges will review.

If those patent judges agree with the examiner's rejection, the applicant can still appeal to the Federal Circuit, where PTO attorneys will review the rejection, as will the court. In stark contrast, if the examiner wants to allow the application, only one person has to have any hand in that decision.

a. How would you strike a balance between making sure there is some review of a decision to issue a patent while making sure the patent system remains efficient?

Response: Though it could be improved in some ways, PTAB review is an effective means for reviewing the validity of issued patents. The PTAB system is efficient because market actors affected by issued patents are the ones most incentivized to bring challenges, and the system will spend little time on patents that have little commercial value.

This being said, as I pointed out in my testimony, the Supreme Court in Lear v. Atkins, 395 U.S. 653 (1969), *recognized the significant harm that can result from the presence of invalid or "bad" patents in the market. As I have previously noted:*[3]

1) A bad patent can act as prior art preventing later inventors from receiving a patent they deserve after actually developing the claimed technology.

2) The holder of a bad patent can enforce the patent against others who are more successful at developing the technology (i.e., a bad patent is not necessarily an unenforceable patent).

3) Even if a bad patent can eventually be invalidated in court, patent litigation is costly, especially for small and medium sized enterprises (SMEs). Some may prefer to settle infringement claims rather than incur the cost of litigation, leaving the bad patent on the books for assertion against others.

4) The existence of bad patents can itself chill new research and innovation, thus reducing market entry, technology development and competition.

As a result, I have proposed[4] *a series of measures at the PTO to help to detect and avoid the issuance of inoperative and other invalid patents: (1) increasing*

[3] Jorge L. Contreras, *Patent Reality Checks: Eliminating Patents on Fake, Impossible and Other Inoperative Inventions*, 102 J. PAT. TRADEMARK OFF. SOC'Y 2, 8 (2021).
[4] Contreras, *Patent Reality Checks, supra* note 3, at 13-16.

PTO efforts to detect potentially inoperable inventions, (2) heightening examination requirements, including a certification of enablement, for certain inventions, (3) enabling greater public input into the examination process, and (4) increasing penalties for fraudulent conduct before the PTO (for additional detail, see response to Senator Tillis's question 9, below).

b. Are there certain types of cases that might particularly warrant a second set of eyes, such as (1) cases involving inventors who have had scientific papers retracted and other red flags, (2) any applications where the examiner proposes to allow the application on the first office action, or (3) any applications that have family members that have been the subject of inter partes review or court proceedings?

Response: Yes. I have previously proposed[5] that the PTO identify applications in which certain "red flags" appear (subpart (1) of Question 3.b), including inventions based on retracted papers, inventors subject to criminal indictments, securities investigations, disciplinary proceedings, scientific misconduct allegations and other forms of behavior that could give rise to questions about the assertions made in an application. Such flagged applications should receive heightened examination.

I support the Senator's suggestion in subpart (2) that applications allowed on the first office action be added to this set of "red flag" applications, not because improper conduct is suspected on the part of the applicant, but because the examiner may not have investigated the prior art or other requirements for patentability as thoroughly as possible.

With respect to subpart (3), I might limit enhanced examination to applications having family members that were invalidated or limited in PTAB or judicial proceedings. Family members that emerged from such proceedings unscathed are arguably stronger than average patents, and perhaps even "gold plated" as discussed in my response to Senator Tillis's Question 13, below.

4. As you so clearly outlined with the Theranos story, there is a serious lack of real-world review of patent applications for things like indictments for lying about having invented the claimed invention. One avenue of real-world review that came up during the hearing was making sure that no inconsistent information is submitted to different government agencies, such as the PTO and the Food and Drug Administration, for different purposes.

a. Would you support a requirement that an applicant must disclose to the PTO anything that applicant has said to any other agency about any prior art reference at issue in the application?

[5] Contreras, *Patent Reality Checks, supra* note 3, at 13-15.

Response: Yes. The sometimes significant mismatch between information disclosed to the PTO and the FDA is well-known and has led to a range of proposals for increased interaction between these agencies, including the Interagency Patent Coordination and Improvement Act (S. 4430) introduced this term.[6] These proposals, if adopted, would significantly improve information transparency between these two key innovation agencies.

However, as suggested by the Senator, there is room for additional improvement, including by imposing affirmative disclosure obligations on patent applicants. An obligation on patent applicants to disclose any statements regarding prior art made to the FDA or other agencies could improve the examination process by alerting the examiner to particular areas warranting special attention.

b. Should that requirement be legislative, a PTO rule, or something else?

Response: Applicants are already required under 37 CFR § 1.56 to disclose to the PTO all information that they possess which is relevant to patentability. Specifically § 1.56(b)(2) requires the applicant to disclose any information that "refutes, or is inconsistent with, a position the applicant takes in … an argument of patentability." Arguably, this requirement applies to statements that the applicant makes to the FDA regarding prior art. However, in order to avoid ambiguity, 37 CFR § 1.56 could be amended to clarify that such statements made to other agencies, particularly the FDA, are subject to this disclosure requirement.

5. You mentioned in your written testimony that it is a known problem that fraudulently procured patents cannot be canceled by the PTO, even after the fraud is discovered.

a. Should there be an avenue for the PTO to invalidate an issued patent if the agency later finds out it was procured through fraud?

Response: I thank the Senator for this question. While the PTO has the ability to reject an application if it deems the applicant to have committed fraud on the office, such findings are rare. Rather, evidence pointing to fraud on the patent office usually arises after a patent has issued.[7] As such, the typical proceeding involving these allegations is an infringement suit in which inequitable conduct is raised as an affirmative defense by the accused infringer. As a result, it is likely that a potentially large number of fraudulently procured patents remain unchallenged.

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[6] *See also* S. Sean Tu, *FDA Reexamination: Increased Communication Between the FDA and USPTO to Improve Patent Quality*, 60 HOUSTON L. REV. (2022).
[7] Contreras, *Patent Reality Checks, supra* note 3, at 9-10.

This being said, the PTO does have an existing avenue to invalidate issued patents upon post-issuance findings of fraud: a reexamination ordered at the Director's initiative under 37 CFR § 1.520. Under this provision, the Director may initiate a reexamination of any issued patent if a "substantial new question of patentability is raised by patents or printed publications which have been discovered by the Director or which have been brought to the Director's attention." Despite this authority, the PTO explains that "[a] decision to order reexamination at the Director's initiative is … rare. Only in compelling circumstances, after a review of all the facts concerning the patent, would such a decision be made."[8] To my knowledge, on the rare occasions when this Director-ordered reexamination has been ordered, it has involved patents that have caused public embarrassment to the PTO (e.g., the infamous method of swinging on a swing).[9] I am unaware whether this provision has been invoked to address a situation involving fraud on the patent office. In order to clarify that Director-ordered reexamination can and should be used for this purpose, 37 CFR § 1.520 and the relevant MPEP section could be updated to make this clear.

Questions from Senator Thom Tillis

1. How would you define or describe a low quality patent?

Response: I would define a "low quality" patent as a patent, the claims of which can be interpreted to cover more than the patentee actually invented or reduced to practice. The hallmark of many low quality patents is a set of claims that are drafted in a manner that is overly vague or general, thus reaching products and services that the patentee cannot reasonably be said to have invented. Low quality is not merely a synonym for invalidity, as it does not encompass patents found invalid under Sections 101 for claiming ineligible subject matter, or under Sections 102 or 103 for seeking to cover some element of the prior art unknown to the patentee. Rather, low quality stems largely from the attempt to claim future innovations that the patentee cannot fairly claim to have invented, and is often associated with similar concepts of over-claiming, overly broad claims, lack of enablement,, gun jumping and the like.

2. What are the main obstacles towards improving patent quality?

Response: Low patent quality arises due to the inherent nature of patent claims and the natural pressures of the patent prosecution system. The exclusive rights associated with patents derive entirely from the linguistic claims eventually allowed by the

[8] U.S. Pat. & Trademark Off., Manual of Patent Examining Procedure, 2239 Reexamination Ordered at the Director's Initiative [R-10.2019].
[9] See Amy L. Magas, *When Politics Interfere with Patent Reexamination*, 4 JOHN MARSHALL REV. INTELL. PROP. L. 160, 168 n. 63 (2004) (collecting cases).

USPTO. Skilled patent practitioners justifiably seek to claim inventions using language that is as broad as possible. Breadth in claim language is necessary, particularly given the demise of the "doctrine of equivalents" in recent years, to prevent competitors from avoiding patent claims through the introduction of insignificant distinctions between what is claimed and an otherwise infringing product. For example, if a claim for a house coating recites "a coat of blue paint" and the same result could be achieved using purple paint, a competitor may avoid infringement by using purple instead of blue paint, yet otherwise reproducing the patented invention in all material respects. Yet if the claim instead recited "a coat of dark-colored paint", the competitor would be unable to avoid the claim with a simple color change. The patent prosecutor's challenge is thus to claim as broadly as possible while still tying the claim language to the disclosures of the specification – what was invented and enabled. In the above example, a skilled practitioner might thus seek to claim "a coat of paint" (thus encompassing any color) or even "a coating" (encompassing paint as well as other coatings). It is the final expansion of this claim language that runs the risk of being overly broad. If, for example, a competitor develops a nanoparticle coating that makes the house invisible to radar, it would still be covered by the claim to "coatings" even though the original patentee may never have had an inkling about radar-eluding surfaces. Thus, while the prosecutor may be congratulated upon the issuance of such a broad claim, the resulting patent would be of low quality, given its potential to sweep in a range of inventions that were never contemplated or reduced to practice by the inventor. In this way, we end up with patents originally drafted for mail-order cassette tape services that are interpreted to cover the podcasting industry,[10] and an old telephone network patent that is heralded as claiming the hyperlink.[11]

3. What recommendations do you have to increase patent quality? How would you recommend prioritizing improvements?

Response: Please see response to Question 9, below.

4. What are the biggest problems that you see posed by low quality patents?

Response: More than half a century ago, the Supreme Court recognized in Lear v. Atkins*, 395 U.S. 653 (1969), the threat that low quality (and otherwise invalid) patents pose to the market and innovation. The existence in the marketplace of these patents, it observed, impairs "the important public interest in permitting full and free competition in the use of ideas which are in reality a part of the public domain." In short, low quality patents allow private parties to put fences around not-yet-invented technologies that should still be part of the public domain.*

[10] Elec. Frontier Fndn., EFF Wins Final Victory Over Podcasting Patent, May 14, 2018, https://www.eff.org/deeplinks/2018/05/eff-wins-final-victory-over-podcasting-patent.
[11] See John Naughton, BT clowns in tangle over web patents, Feb. 17, 2002, https://www.theguardian.com/technology/2002/feb/17/business.columnists

As noted in my response to Senator Leahy's Question 3.a, the following are some specific examples of the harms that can flow from the existence of low quality patents in the market:

a) A low quality patent can act as prior art preventing later inventors from receiving a patent they deserve after actually developing the claimed technology.

b) The holder of a low quality patent can enforce the patent against others who are more successful at developing the technology, either through litigation or the threat of litigation that underlies licensing demands.

c) Even if a low quality patent can eventually be invalidated in court, patent litigation is costly, especially for small and medium sized enterprises (SMEs). Some may prefer to settle infringement claims rather than incur the cost of litigation, leaving the low quality patent on the books for assertion against others.

d) The existence of low quality patents can itself chill new research and innovation, thus reducing market entry, technology development and competition.

5. What initiatives to address patent quality have been particularly successful, in your perspective?

Response: I believe that the USPTO examiner corps is good at implementing guidance from the PTAB and courts into its examination policies and procedures. An increasing source of such guidance is the PTAB, which has been increasingly active over the last decade, particularly in the context of party-initiated IPR proceedings. Unfortunately, there are few avenues at the PTAB to review enablement issues (see below).

6. Are there any particular data points or metrics that could help prioritize discussions about improving patent quality? What agencies or other organizations could contribute to collecting such data?

Response: As noted in my response to Senator Leahy's question 2.c, above, there are several possible approaches to measuring patent quality, including by reference to judicial and PTAB validity determinations, as well as internal USPTO sampling and review of examined applications, particularly in areas most susceptible to low quality patents. See also my response to Question 11, below.

7. How can the USPTO improve collaboration on prior art searching—both domestically (e.g. between USPTO and the FDA) and internationally (e.g. among the IP5)?

Response: The Senator raises an important issue. While I agree that such collaboration would be beneficial, I do not currently have specific recommendations for the improvement of inter-agency collaboration in this area.

8. What technological improvements should the USPTO focus on to improve prior art searching?

Response: While I appreciate the importance of the Senator's question, I do not have the relevant technical expertise to suggest particular technological improvements for the USPTO.

9. You have expressed concern about patents covering imaginary, fraudulent, or otherwise non-existent inventions, and have proposed solutions. Could you please elaborate on your proposed solutions, including the concept of adopting more stringent enablement standards for examiners?

Response: As I have previously written,[12] the problem of inoperative patents can be addressed by a greater focus at the patent examination stage on whether or not claimed inventions have been reduced to practice by their inventors. To that end, I offer a few modest "reality checks" to help examiners more closely align patent allowances to technical realities, and to deter fraudulent behavior at the USPTO.

a. Increase Vigilance for Inoperable Inventions

At the examination stage, the USPTO should check inventor names against lists of retracted papers, criminal indictments, securities investigations, disciplinary proceedings, scientific misconduct allegations and other forms of behavior that could give rise to questions about the assertions made in an application. The USPTO could also flag other questionable applications such as miracle cures, cold fusion and interstellar spacecraft. Finally, as Professor Janet Freilich has suggested,[13] when examiners conduct an initial search concerning an application, they should seek information published both before and after the priority date of the application. Post-priority information may not be relevant for prior art purposes, but it could identify retracted papers as well as public allegations and controversy surrounding a particular invention. An application flagged for any of these reasons could be subject to heightened enablement examination (see subpart (b) below).

b. Enhanced Enablement Examination

If an application is flagged as potentially claiming an inoperative invention, an examiner should be able to request verification that the invention has actually been reduced to practice and adequately enabled. This verification could come

[12] Contreras, *Patent Reality Checks, supra* note 3, at 13-16.
[13] Janet Freilich, *Ignoring Information Quality*, 89 FORDHAM L. REV. 2113, 2146-47 (2021).

in several forms. First, as several scholars have previously suggested, applicants could be required during prosecution to provide more information about the enablement of their inventions.[14] *Yet this approach may be of limited value when inventors are less than forthright, as might occur with respect to fraudulent inventions. Thus, a more effective approach may be to require an applicant to demonstrate the practice of its invention to a third party auditor or peer reviewer, or to convince the reviewer that reduction to practice is both feasible and likely.*

c. Engage the Public

Over the years, commentators have observed that members of the public (academics, industrial researchers, software developers, etc.) are more likely to appreciate the technical challenges faced by a given invention than examiners.[15] *As such, numerous proposals have been made to enable members of the public to offer input to the USPTO with respect to particular patent applications. For example, between 2007 and 2011, the USPTO and New York Law School operated a pilot program called "Peer to Patent", which allowed "citizen-experts" to review selected patent applications (mostly relating to computing, software and business methods), to identify and rate prior art, and to offer other input to the examination process.*[16]

It is not clear why the Peer to Patent program was discontinued after 2011, but it is possible that the USPTO believed that new mechanisms for challenging patents under the America Invents Act (AIA) might serve a similar function. For example, as amended by the AIA, Section 122(e) of the Patent Act permits members of the public to submit to the USPTO prior art pertaining to any patent application for six months after its publication, and Section 311 permits members of the public to bring an inter partes review (IPR) proceeding to challenge the novelty or nonobviousness of an issued patent within nine months of its issuance. Neither of these procedures, however, allows challenges to the enablement *of a patented invention. Yet in order to address the issue of inoperative inventions, greater public input into enablement is required. Accordingly, the pre-issuance submission procedure under Section 122(e) should be expanded to permit members of the public to raise enablement concerns with the USPTO throughout the prosecution of a patent application, without requiring the expense or formality of a full IPR proceeding. In addition to such an amendment, the USPTO may wish to consider*

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[14] *See* Freilich, *Information Quality, supra* note 13, at 2145, Mark A. Lemley, *Ready for Patenting*, 96 B.U. L. REV. 1171, 1191 (2016), Sean Seymore, *The Teaching Function of Patents*, 85 NOTRE DAME L. REV. 621, 642 n.103 (2010).

[15] *See, e.g.*, Lisa L. Ouellette, *Pierson, Peer Review, and Patent Law*, 69 VANDERBILT L. REV. 1825, 1842 (2016), Robert P. Merges, *As Many as Six Impossible Patents Before Breakfast: Property Rights for Business Concepts and Patent System Reform*, 14 BERKELEY TECH. L.J. 577, 614–15 (1999).

[16] *See* Naomi Allen et al., Peer to Patent: First Pilot Final Results (2012). *See also* Ouellette, Peer Review, *supra* note 15, at 1839-40 (describing program).

reinvigorating and expanding the scope of the Peer to Patent program to seek information and views regarding enablement, as well as prior art, from the public.

d. Enhance Penalties for Fraud

As noted earlier, the principal penalties for inequitable conduct and fraud before the USPTO are rejection of a patent application and unenforceability of an issued patent. Claims under antitrust law and state fraud statutes may also be available. However, there is no explicit fraud remedy, either private or administrative, under the Patent Act. In fact, the America Invents Act of 2011 eliminated virtually all references to an applicant's deceptive intentions that were previously included in the Patent Act.

In many cases, the remedy of patent unenforceability may be sufficient to deter an applicant from intentionally omitting relevant prior art references – the type of conduct most frequently challenged under the inequitable conduct doctrine. However, merely rendering a patent unenforceable when it was procured through fraudulent means seems unduly lenient, particularly when compared to penalties for fraud in other legal contexts.

Accordingly, the penalties for fraud on the USPTO should be expanded in the case of inoperative inventions (i.e., these procured through deception beyond the simple omission of prior art references) to include both criminal penalties and substantial fines. Similar penalties, as well as civil punitive damages, should also be available against entities responsible for the post-issuance enforcement of such patents. Such enhanced penalties are likely to reduce the chance that applicants will seek patents on inoperative inventions and that they and their assignees will seek to enforce them.

10. Over the past several years, some stakeholders have consistently expressed concerns about the number of patents being issued that don't appear to satisfy the enablement and written description requirements found in Section 112. These stakeholders claim that Section 112 has not been correctly interpreted or appropriately applied by the USPTO or the courts and that this has resulted in the issuance of many vague and overly-broad patents of questionable validity. What is your view regarding whether the USPTO adequately enforces Section 112 to ensure that issued patents comply with the enablement and written description requirements?

Response: As suggested in my prior responses, I share the concern that the USPTO may allow patent claims that capture more than the inventor has actually invented or reduced to practice.

11. Do you think current examination practice is effective in deterring so-called "functional claiming," which is the inappropriate practice of describing only the desired result in a patent without disclosing the particular means of producing that result as is required by Section 112?

Response: While I do not have specific evidence of the quantity of "functional claiming" that is allowed in issued patents, my understanding is that it continues to appear. As a result, I would suggest that a study (either by the PTO or by independent academics) be undertaken to gather evidence regarding the prevalence of functional claiming in issued U.S. patents.

12. Are any changes to Section 112 that should be made by Congress to clarify its meaning or to ensure it is given its intended effect?

Response. Yes. As noted in my response to Question 9, I would suggest that Section 122(e) of the Patent Act be expanded to permit members of the public to raise enablement concerns with the USPTO throughout the prosecution of a patent application, without requiring the expense or formality of a full IPR proceeding. This expansion could be accomplished through an amendment to Section 112 or Section 122(e).

13. What are your thoughts about creating a "gold plated" patent, where applicants would have the option of paying for a more thorough examination of their inventions that would merit a presumption of validity (a "gold plated"), or allowing less economically significant patents to receive a separate patent?

Response: I have previously proposed that patents undergoing the enhanced enablement review discussed in my response to Question 9 receive a strong presumption of enablement under Section 112. Such a presumption would be similar to the "gold-plating" suggested by others, including Senator Tillis.[17] Such a system would make patents that have undergone stringent enablement confirmation less vulnerable to enablement-based validity challenges. The designation of such patents could be recorded and displayed by the USPTO directly on patent records, making this information easily accessible to the market.[18]

[17] Doug Lichtman & Mark A. Lemley, *Rethinking Patent Law's Presumption of Validity*, 60 Stan. L. Rev. 45, 50, 61-63 (2007), Politico, *Tech of the Town - Lawmakers Examine Ways to Improve Patent Quality*, Jun. 22, 2021 ("Ranking member Thom Tillis (R-N.C.) will . . …. advocate for creating a '"gold-plated'" patent that would involve a more rigorous review process.)

[18] For a discussion of a proposed annotation system, see Jorge L. Contreras, *Shepardizing Patents*, Patently-O, (Jun. 16, 2021), https://patentlyo.com/patent/2021/06/contreras-shepardizing-patents.html.

I thank you again for the opportunity to respond to these questions. Please let me know if I can provide any additional information to assist the subcommittee with its important work in this area.

Very truly yours,

Jorge L. Contreras