Questions for the Record of Senator Patrick Leahy
Chair, Intellectual Property Subcommittee
Hearing on: "Protecting Real Innovations by Improving Patent Quality"
June 22, 2021

Questions for Mr. Troy Lester

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:

Requiring patent owners to register their ownership interest should not be a controversial issue. Almost all patent owners will register their ownership, as an inventor or an assignee, so that the notice provision from contract law will apply to any future transfer of the patent. The only situations where an owner does not register their assignment, other than because of an oversight, is when the owner is purposely trying to avoid being known. These owners are generally Non-Practicing Entities (NPEs) that are planning an assertion campaign and foreign entities disguised as a resident LLC.

The patent system is founded on the principles of disclosing an inventive idea to the public in exchange for limited exclusive rights. The disclosure of the invention requires transparency in how to make and use the invention. This same principle of transparency should also extend to the owners of patents that are trying to assert those exclusive rights.

There are different types of NPEs. Legitimate NPEs, such as universities, conduct research to better technologies and often obtain patents on their work. They look to license these technologies in order to improve a product or process. These NPEs already identify their ownership interest of their patents by registering their assignments with the USPTO. It is only the more aggressive NPEs trying to assert meritless cases that hide their ownership status so that they cannot incur any repercussions from their sordid patent assertions.

> Sophisticated trolls sue using shell companies created for the specific purpose of shielding their investors from liability and scrutiny. Structured correctly, the entity need not be connected to the corporation's sponsors or its assets. Faced with a sanction or attorney's fee award against it, the LLC could go bankrupt rather than pay the penalty.

Colleen V. Chen, Reforming Software Patents, 50 Hous. L. Rev. 325, 383-383 (2012) (footnote omitted). Courts have found it difficult to hold such NPEs accountable for abusing patent litigation assertions and actions. These NPEs are often formed for the sole purpose of asserting a patent or a family of patents and have no assets other than the patent, no working capital, and no employees. The principals of these NPEs are undisclosed which can frustrate any award sanctioned by the court. This practice has led to many states incorporating laws that

allow patent defendants to file actions against meritless patent assertions and potentially require the patent holder to post escrow. See North Carolina Abusive Patent Assertion (Act), N.C. Gen. Stat. § 75-140.

Moreover, requiring patent ownership disclosure would also have the benefit of promoting business transactions. Parties wanting to use a patented technology would be able to contact the appropriate, real owner to negotiate a licensing arrangement or even an assignment of ownership. This could promote the use of technologies that would otherwise be avoided.

Thus, it is my opinion that all owners, not just the shell company, should be required to register their interest in a patent before that patent is asserted and forfeit any and all damages prior to such registration.

2. Another breakdown in transparency is what sometimes happens when an applicant requests an examiner interview: there will be a terse summary of the interview discussion, but it will result in allowance of the application. After the patent issues, the public, who may be looking to see what convinced the examiner, will see little or no detail from the interview.

    a. **Would it help the public if there was more information about any substantive discussion between the applicant and examiner and entered into the file history of the application?**

Response:

Almost every examiner interview is approximately ½ to 1 hour long and allows the Examiner and applicant to fully evaluate the technology and prior art rejections. In my experience, these interviews result in a single paragraph summary of what was discussed. One result is that in litigation a term or element can be given a completely different definition than what was discussed during the interview and led to the claim's issuance. However, the more prevalent and less discussed result is that the public will be unable to evaluate the scope of a patent claim, and therefore, will be unable to work on a competitive design-around product. This prevents healthy competition and frustrates our economy.

Transparency on interview summaries can be contrary to the patent attorney's goal of obtaining the broadest claims possible for their client. Thus, the attorney will generally be as vague as possible while submitting the required interview summary. However, it is the Examiner's responsibility to ensure that the patent claims are well defined and distinguished over the prior art. Thus, Examiners should be required to complete interview summaries that are detailed enough to convey all of the elements that were discussed and how those elements overcame the rejections. The public should be able to rely on the Examiner's summary to complete a patent evaluation.

Possible solutions could include a program implemented by the USPTO subjecting Examiner interview summaries to quality review and/or requiring interview agendas from practitioners requesting interviews. The agendas would allow the Examiner to be better prepared for the interview and could significantly improve the efficiency of the interviews.

Senator Tillis Questions for the Record – – Protecting Real Innovations by Improving Patent Quality

Mr. Troy Lester

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

   Response: Low quality patents or "bad" patents are simply overly broad, invalid patents. The patent system is built on the quid-pro-quo that an inventor disclose and claim a new, non-obvious technology in exchange for limited exclusive rights. When a patent fails to claim anything new or the claims are poorly defined, it is not teaching the public and does not deserve the exclusive rights granted.

   It is my opinion that these patents fit into two categories: patents that are clearly taught by the prior art and patents that are very poorly defined.

   Patents that are taught by the prior art often issue because the best prior art is not available to the patent Examiner, or the best prior art is missed. Some of these patents can be invalidated through IPRs, but others cannot because the prior art is an existing product or unpublished work and cannot be used in an IPR.

   However, the greatest problem in my opinion are poorly defined patents. The patent system is built on the inventor "particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention." 35 U.S.C. § 112. The poorly defined "bad" patents are exemplified by U.S. Patent No. 10,514,832 (the '832 patent), which is the most recent patent asserted by a Non-Practicing Entity (NPE) against Acushnet Company. Copies of the assertion letter, claims chart and patent are attached for convenience. The first claim of the '832 patent was alleged to be infringe by FootJoy's store locator function on its website. The patent claims:

   > A method comprising:
   > determining, in response to a user command, regions of interest within each of a plurality of cards by searching information indicating previous user preferences; and updating for display the plurality of cards to visibly show in a display area of a display device the at least one region of interest of multiple cards included in a first group of the plurality of cards, wherein said updating includes repositioning the plurality of cards to remove cards not included in the first group from the display area and to visibly display the at least one region of interest within all of the multiple cards included in the first group within the display area of the display device. (Emphasis added).

   The allegation of infringement was that by putting in a location with a certain radius into Acushnet's store locator, a first set of stores (cards) were displayed. Then, when a second, smaller radius was used, some stores (cards) were displayed and some of the first stores were not.

   The '832 patent is an example of a low-quality patent because the terms used in the claims are so broad, unclear, and devoid of meaning that the claim is completely disconnected from the invention actually described in the patent:

> The present invention provides several different embodiments of a user interface that is used for receiving, recording, playing back, purchasing, and the like media such as videos, television shows, movies, audio, music, video games, and the like. Such a user interface can be implemented on devices such as a computer, set top box, media server, tablet, mobile phone, personal media, device, portable video game system, video game system, and so forth.

As shown, the claim copied above is void of any affiliation to videos, television shows, etc., as described in the specification of the '832 patent. Thus, the NPE, IP EDGE, felt free to send out infringement allegations for store locators on websites. The travesty of this assertion campaign is that Acushnet Company, like many other companies, started using their store locators in the mid-2000s, some five years before the 2010 priority date of the '832 patent. Thus, if the '832 patent reads on store locators because its claims are so poorly defined, it is anticipated by all of the store locators used in the mid-2000s and by U.S. Patent No. 5,930,474, which issued in July 1999 and actually taught store locator technology.

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

Response: Low quality patents or "bad" patents are often asserted against many companies in an attempt to extract many nuisance fee settlements. The NPEs like IP EDGE are well aware that patent litigations often cost more than $5,000,000, and thus, companies can be extorted for up to $50,000 to avoid litigation.

Companies like Acushnet Company are more aware of prior art and are able to prepare material responses to NPEs such as IP EDGE. In Acushnet Company's response to IP EDGE, Acushnet informed IP EDGE that because they were faced with uncontroversial anticipatory prior art, the patent was clearly invalid, and therefore, IP EDGE lost the ability to assert the '832 patent against all other parties' store locators. However, I have to assume that IP EDGE continued to send accusatory letters to many companies that were not aware of the store locator prior art. Thus, IP EDGE was most likely able to extract vast sums of money from vulnerable companies.

I find this type of patent abuse deplorable because I believe in the patent system. I firmly believe that patents foster innovation, which is the engine of our economy. Thus, we have a responsibility to make sure the system is used for its intended purpose, not to extort money from unsuspecting companies. For example, Landmark Technologies sent over 1800 letters seeking $65,000 for "settlement." Assertions of bad patents are antithetical to the intended use of patents and this type of business model can be limited by ensuring that patent claims are well-defined before the patent is issued.

Bad patents also stifle innovation without ever being asserted. They can pose barriers to the creation of products when companies avoid implementation of technologies in the presence of a bad patent because the companies do not want to risk the potential, expensive litigation and being forced to present the patent validity issue to a jury. Juries are well equipped to handle many issues within our judicial system, but patent law is not one of them. Most patents require extensive knowledge of the specialized technology to be properly interpreted and evaluated and juries do not have that capability. Thus, many companies chose to

completely avoid deployment of technologies even when they are aware of a patent's invalidity.

3. What initiatives in this area have been particularly successful, in your perspective?

   Response: Low quality patents like the '832 patent can be easily avoided by making the applicant distinctly claim their invention. The Examiner's diligent review and application of the existing enablement requirements of 35 U.S.C. § 112 can include making the applicant use language in the claim that limits the claim to the technology actually being taught in the patent. For example, the claims of the '832 patent should have been limited to the video streaming technology disclosed in the patent and prevented from being asserted against store locators.

   For patents that are taught by published prior art, IPRs are by far the best tool to remove them from being asserted. However, IPRs are still extremely expensive and therefore are rarely used. Thus, many invalid patents remain that prohibit companies from pursuing technologies that are clearly in the prior art and should be readily available. Making IPRs more affordable to both petitioners and patent owners and devoting more resources to accommodate the increased demand could significantly improve the patent system.

4. What is the USPTO doing right with respect to patent examination and patent quality, and in what areas would you recommend improvement?

   Response: Examiners that have been in a particular art unit for over 5 years seem to possess an excellent grasp of the prior art and some are very adept at building obviousness rejections using 4 to 5 references. By creating well thought out, thorough office actions, they force the applicant to define the invention and distinguish the prior art, and thus create a much more valuable patent. In my experience, the Examiners are well aware of the prior art in patents and are able to use the teaching in prior art patents to form solid rejections. The primary problem the Examiners have with prior art rejections is not having the best prior art available to them and applicants inventing new ways to claim existing technologies.

   On the other hand, I believe that Examiners could improve their use of § 112 to make applicant better define their inventions. In *American Axle*, for example, the court affirmed the district court's invalidation of an independent claim in American Axle's patent on a method of manufacturing automotive drive shafts under § 101. *American Axle & Manufacturing, Inc. v. Neapco Holdings LLC*, 939 F.3d 1355, amended, 967 F.3d 1285 (2019), petition for rehearing en banc denied, 966 F.3d 1347 (Fed. Cir. 2020) Notwithstanding the subject matter of the claim, manufacturing a drive shaft with an internal liner, which is patent-eligible subject matter (viz., processes), the courts held it to be patent-ineligible under §101 because it preempts a law of nature.

   In my opinion, the courts correctly identified an issue with the patented claim but applied the wrong statute by citing §101 instead of §112. The patent in *American Axle* does not provide an enabling description of the claimed process and the claim in question does not particularly point out and distinctly indicate the details of the shaft and liner required to tune the shaft. In our opinion, the claim in *American Axle* could have been found to be unpatentable for reasons that are found in § 112. The § 112 issue could have been raised at the initial examination stage and required the applicant to insert some physical

properties, such as materials and/or thicknesses of the shaft and liner components.

Also, if *American Axle* were decided on a § 112 basis, additional guidance could be provided to Examiner's on this topic.

Acushnet has dealt directly with the ramifications of unclear guidance on § 112 for Examiners on competitor claims with similar features to those at issue in *American Axle*. For example, U.S. Patent No. 6,348,015 (the '015 patent") claims a golf club head having a "striking plate composed of a first material and having a natural frequency of less than 4500 Hz and greater than 2800 Hz." While this claim is directed to a golf club, which in general is clearly within a category of patentable subject matter under §101, the only alleged novel element of the claim is a natural frequency which every article possesses. This patent claim, in our opinion, is clearly not definite as it does not distinctly claim the golf club in any manner whatsoever. It claims a natural property, frequency, that all golf clubs possess. Under current patent eligibility jurisprudence, the best course of action to invalidate this claim may be to argue it is not patent eligible under § 101 based on the decision in *American Axle*. However, the claim should have been rejected at the examining stage under § 112.

5. 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: In my opinion, the USPTO could try to collaborate with domestic industry regulatory bodies. For example, for golf, the USPTO could try to collaborate with the United States Golf Association (USGA) on searches and technology issues. The USGA requires golf clubs to be submitted to determine whether they conform to the rules of golf. Thus, the USGA is well aware of golf club technology being used. Unfortunately, submissions to the USGA are confidential so these types of collaborations could be extremely difficult.

   I believe that collaboration of Examiner joint training among the IP5 would be extremely helpful. Different Examiners have different search techniques that could be shared and discussed to significantly improve searching and examination processes. However, improved translations may prove to be an even greater asset. Currently, Japanese Examiners are able to assert Japanese and U.S. references because the Examiners know both languages and are able to search patents and references from both countries. However, U.S. Examiners have to rely on very poor-quality, machine translations of Japanese art. Thus, the Japanese objections tends to cite more thorough prior art.

6. Are you aware of some of the USPTO's recent efforts to address patent quality? What initiatives in this area have been particularly successful, in your perspective? What have not?

   Response: One recent effort to improve patent quality that I'm aware of is the automated assignment of applications designed to make sure that the proper Examiner is reviewing the application. This effort also allows Examiners to "challenge" the initial classification of an application to improve the search and ensure an appropriate Examiner handles the case. This initiative has not had any effect on the cases that we prosecute because our applications are all examined by a core group of Examiners.

The USPTO has also increased the number of production hours for cases, providing more hours to Examiners to review the applications. This effort makes sense since the amount of prior art is continuously growing. Hopefully, this will enable Examiners to spend more time searching and better evaluating applications.

In the 21st century, the USPTO saw a significant expansion of the Examining crops to help reduce the application backlog, which resulted in a high number of "Junior" Examiners. This effort focused on quantity, not quality. The system relies heavily on Primary Examiners training and supervising Junior Examiners and examining their own cases. This can lead to low-quality patents seeping through the cracks.

Over the last couple of years, the USPTO has implemented random checks of office actions and ratings for the Examiners. These evaluations provide feedback and incentivizes the Examiners to be more thorough. However, I think it would be very prudent for the Junior and Primary Examiners to have a second pair of eyes on a case before preparing an office action. Collaboration would allow the Examiners to more thoroughly vet what the invention is and whether the claims define the invention. Thus, this proposition requires the USPTO to increase its resources for quality purposes rather than quantity purposes.

There has been a concerted effort for more collaboration with EPO under the CPC over last 10 years. This has been a slow transition, but it seems to be improving lately. Examiners from the EPO and USPTO are getting better at providing a more global, unified approach. Moreover, if an examination search is in the proper technology area it provides a better-quality search. The problem is with cases like the '832 patent discussed above, the Examiner was searching in the video art, but the patent claims were extremely vague and should never have been allowed.

Another initiative directed to improving quality is the After Final Consideration Pilot 2.0. This program enables applicants to propose amendments after prosecution has closed on the merits. This helps applicants obtain patents when only §112 clarity or definiteness issues stand in the way. In order to improve the clarity of patents, it might be useful to provide the Examiners with an addition §112 review and allow them to work with the applicant to create higher-quality patents.

7. 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 believe that we already have "gold plated" patents. Patents that have survived an IPR petition are "gold plated." The AIA prevents an IPR petitioner from asserting invalidity in trial on a ground that was raised or could reasonably have been raised in the IPR. Thus, any patent surviving an IPR has substantially more value.

Allowing applicants to pay more for a more thorough examination could reduce the number cases where the best prior art is missed, but it does not assist in cases where the best prior art was not available to the Examiner. Moreover, patents already receive a very strong presumption of validity in court, even when new prior art is presented.

8. 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: I believe that the only true metrics is the number of patents that are found to be invalid by the PTAB or courts. By comparing the number of patents asserted to the number of cases where the patent is found invalid, the patent office can determine the percentage of bad patents being granted. For example, it is my understanding that approximately 30 % to 40 % of all IPR petitions result in at least one claim being invalidated. Thus, those patents have claims that should not have been allowed.

9. Do you have any experience with responding to assertions based on fraudulent patents to share?

   Response: Acushnet Company has responded to too many assertions of low-quality patents. In addition to the assertion from IP EDGE that is attached, Acushnet Company has seen its fair share of "bad" patent cases.

   In June of 2013, Acushnet was sued by Eclipse IP LLC in the Eastern District of Texas for allegedly infringing U.S. Patent Nos. 7,876,239 and 7,119,716. Eclipse alleged that Acushnet infringed the '239 patent by "enabling customers to provide and/or select, authentication information regarding online orders, storing the authentication information, and providing the authentication in notification communications."[1] The complaint also alleged that Acushnet infringed the '716 patent by "storing customers' contact data in memory and providing notification communications to the customers which enabled them to change the contact data."[2] In reality, Eclipse ordered a golf club from one of Acushnet's websites and alleged that the website stored their shipping address and provided access for them to change their shipping address. Through this interaction with Acushnet, Eclipse claimed that its patents directed to tracking buses and taxis were infringed.

   Innovatio IP Ventures LLC was another entity that reached out to many companies and alleged infringement through their use of Wi-Fi. Innovatio alleged that Acushnet had three manufacturing plants in Massachusetts and that those manufacturing plants must have Wi-Fi. Therefore, they alleged, Acushnet infringed its approximately 20 patents. Similarly, Helferich stated that Acushnet infringed its patents by sending tweets to followers. Acushnet was offered a license for $15/1000 tweets. Thus, a tweet to 1,000,000 followers would cost about $15,000. Helferich's intimidation material included a list of approximately 150 licensees.

   Obviously, these types of patent matters have nothing to do with Acushnet's core business of making the best golf equipment that we can. More importantly though, these cases can be serious distractions and require significant resources to resolve. Thus, these types of patent assertions take resources that could and should otherwise be better allocated towards research and development or employees.

[1] Eclipse LLC v. Acushnet Company, Complaint, E.D. Tex. (2013).
[2] *Id.*