

Written Testimony of Dan Lang
Vice President, Intellectual Property and Deputy General Counsel
Cisco Systems, Inc.
Before the Senate Judiciary Committee Subcommittee on Intellectual Property
Wednesday, September 11, 2019
“Innovation in America: How Congress Can Make Our Patent System STRONGER”

Chairman Tillis, Senator Coons and other members of this Subcommittee, I thank you for the opportunity to share my thoughts on our country’s patent system and whether enacting the STRONGER Act into law will help American innovation. I am Vice President of Intellectual Property and Deputy General Counsel at Cisco Systems. We own over 15000 US Patents, spend over \$6 billion on R&D annually, and employ 39000 people in the United States. We take our intellectual property very seriously. In 2014, we filed suit in district court and the International Trade Commission against an abusive infringer. In the course of this dispute, all the asserted claims of two of our patents were invalidated in USPTO post-grant proceedings and the invalidity determinations were affirmed by the Court of Appeals for the Federal Circuit (CAFC). These were important Cisco patents and I did not agree with the invalidity findings. But as the Supreme Court said in 1917, “the primary purpose of our patent laws is not the creation of private fortunes for the owners of patents but is ‘to promote the progress of science and useful arts.’¹” The patent system wasn’t created to benefit Cisco or any other private company. It was created to foster innovation. That is why I support a balanced patent system that includes a robust inter partes review process and sensible limitations on injunctions as a remedy for infringement.

To cut to the chase, I believe that although S. 2082, the STRONGER Patents Act, is well-intentioned by its sponsors, it would do far more harm than good. By substantially weakening the post-grant

¹ Motion Picture Patents Co. v. Universal Film Mfg. Co., 243 U.S. 502, 511 (1917)

procedures established by Congress when it enacted the America Invents Act, it will make it easier to successfully enforce patents that only “protect” old and obvious ideas. By making injunctions the presumptive remedy for every finding of patent infringement, the Act will force even those wrongly accused of infringement to succumb to extortionate demands to avoid the unacceptable risk of interrupted sales. As currently drafted, the effect of the STRONGER Patents Act will be to siphon money out of the pockets of innovative businesses and their customers and into the coffers of financial speculators who in most instances contribute nothing to innovation.

We were part of the broad cross-industry coalition that supported the bi-partisan America Invents Act (“AIA”). The AIA created the new Inter Partes Review (“IPR”) and Post-Grant Review (“PGR”) procedures. The new procedures made it easier to invalidate bad patents by taking them back to the USPTO for review by experts. We also supported, as amicus curiae, the petitioner in *eBay v. Mercantile Exchange, LLC*, the 2006 Supreme Court case that restored equitable principles to patent remedies by largely restricting the harsh remedy of an injunction to competitive situations where royalties do not address the harm suffered by a patent owner due to infringement.² The AIA together with *eBay* and other Supreme Court cases such as *Alice*³ (patent subject matter), *TC Heartland*⁴ (venue), and *Octane Fitness*⁵ (fee shifting) helped turn the tide on abusive patent litigation.⁶ As

² See *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 126 S. Ct. 1837 (2006)

³ *Alice Corp. Pty. v. CLS Bank Int'l*, 573 U.S. 208, 134 S. Ct. 2347 (2014)

⁴ *TC Heartland LLC v. Kraft Foods Grp. Brands LLC*, 137 S. Ct. 1514 (2017)

⁵ *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 572 U.S. 545, 134 S. Ct. 1749 (2014)

⁶ Other recent Supreme Court cases, however, favored the interests of patent enforcement. See *Commil USA, LLC v. Cisco Sys., Inc.*, 135 S. Ct. 1920 (2015) (a defendant’s belief regarding patent validity is not a defense to a claim of induced infringement); *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 136 S. Ct. 1923 (2016) (AIA did not ratify Federal Circuit’s two-part test for enhanced damages); *Microsoft Corp. v. I4I Ltd. P’ship*, 564 U.S. 91, 131 S. Ct. 2238 (2011) (defense to patent infringement claims must be proved by clear and convincing evidence)

measured by the total number of defendants added to patent lawsuits, the volume of patent litigation declined from 6985 defendants in 2011 to 3507 defendants in 2018.

These changes were critical to returning balance to the patent system. The statistics show how the volume of patent litigation rose and fell with changes to the law, but I think a story—one of many—illustrates the need for securing and maintaining a balanced approach for our patent system. The story begins with Cisco developing innovative technology for instant messaging, starting with our acquisition of a pioneering start-up in that field, Jabber, in 2008. In the years since then we have continued to advance that technology. Today, our Jabber instant messaging client is used by over 40 million people throughout the world. It is a great example of what we have done throughout our history, developing new technology to improve networking and bringing products to market to benefit the public.

But in 2017, we were sued for patent infringement in the Eastern District of Texas by a number of affiliated entities operating under the name Uniloc.⁷ Entities operating under the Uniloc name have a long and twisted history since an operating company using that name transformed over time into a shell company that buys patents to use them to sue legitimate businesses that actually develop, sell, and use technology. The Uniloc that sued us has since assigned its patents to an apparently wholly owned subsidiary of private equity giant Fortress, which has funded Uniloc for years and appears to have taken over its assertion strategy entirely in 2018.

The Uniloc patents purported to cover a mundane and rarely used feature of our Jabber product that accepts a user request to launch a conference telephone call among participants in an instant messaging chat. Uniloc demanded an 8-figure settlement and was never willing to even discuss a reasonable compromise. Uniloc did not develop any products related to the patents or even invent

⁷ Cisco Sys., Inc. v. Uniloc USA, Inc., 386 F. Supp. 3d 1185 (N.D. Cal. 2019)

anything claimed. Rather, it acquired the patents from a defunct company based in Seattle, Washington. We investigated Uniloc's assertions and found them to be groundless. We discovered that in examining the Uniloc patents, the USPTO hadn't found highly relevant earlier patents. We filed IPR petitions in the Patent Trial and Appeal Board (PTAB) on each of the patents asserted in the case. Our petitions were granted and after a trial, the patents were invalidated. The cases are now on appeal to the Court of Appeals for the Federal Circuit.

While we are optimistic that the PTAB decisions will be upheld on appeal, unfortunately, under S. 2082⁸, this story would likely have gone very differently. The STRONGER Patents Act would greatly weaken the IPR and PGR procedures created by the AIA. For example, under section 102(d), only one IPR can be instituted against any patent by anyone and under section 102(h), any patent that has survived a single district court challenge to validity would forever be insulated from challenge before the USPTO.

We were not the first to have an IPR instituted against one of the Uniloc patents. In our story, the previous institution would have precluded us from filing our own IPR petition. But the architects of the AIA understood that each defendant should be able to mount its own defense before the USPTO just as in District Court. Different defendants may tailor their petitions to their own situations, for example by pointing out prior art that predates the patents and is similar to their own accused products. With the proposed "one and done" rule, it is not unreasonable to expect that patent monetizers will pursue small and deficiently funded defendants first with the expectation that an under-resourced challenge will forever insulate a low-quality patent from subsequent, well-funded and robust challenges. And even if the previous challenger is well-funded, they may choose to settle after institution, leaving the

⁸ STRONGER Patents Act of 2019, H. R. 3666, 116th Cong. (2019)

patent grant undisturbed with future challenges barred under S. 2082. This single change alone would substantially weaken the IPR system created by the AIA, contributing to a new wave of abusive patent litigation with harmful effects across multiple industries and for American consumers.

But even if there had been no previous challenges to Uniloc's patents, S. 2082 would have made IPR challenges far more daunting. Section 102(b) gives patents a presumption of validity that can only be overcome by clear and convincing evidence rather than by a preponderance of the evidence as provided in the AIA. The proposal to increase deference to an issued patent grant makes little sense given that the average patent is granted after only 18 hours of examination time by overworked examiners who struggle to find relevant prior art using outdated search tools.⁹ Indeed it is common knowledge in the technology industry that many issued patents should not have been granted.

The justification for raising the evidentiary standard is that it should match the standard used in District Court. There may well be a certain logic in a rule that requires a generalist court to defer to the decision of a USPTO examiner to grant a patent and requires clear and convincing evidence to overturn her decision. However, review in an IPR or PGR is a very different situation in that the USPTO is revisiting its earlier work and increased deference to itself simply does not make sense. Indeed, one of the purposes of the IPR and PGR system is to address well-known shortcomings in US patent quality using a corps of specialized patent judges. If the clear and convincing standard for IPR were to be enacted, I would expect that the result would be that many weak patents, including quite possibly the Uniloc instant messaging patents, would survive the higher standard of deference in an IPR.

⁹ See generally Frakes, Michael and Wasserman, Melissa F., *Irrational Ignorance at the Patent Office* (November 13, 2018). *Vanderbilt Law Review*, Vol. 72, 2019, Forthcoming; Duke Law School Public Law & Legal Theory Series No. 2018-64.

In our Uniloc case and likely in thousands of cases just like it, determining validity would be likely left to district courts under the enfeebled IPR system envisioned by the STRONGER Patents Act. Summary judgment of invalidity is exceedingly rare, leaving a full trial the most likely option for invalidating the patent. Lay jurors would be left to assess the distinctions between the invention and the prior art based on the conflicting testimony of each side's hired experts. The IPRs challenging all of the asserted Uniloc instant messaging patents cost us approximately \$1M while a full trial would have likely cost between \$4M and \$5M. Many defendants facing the cost and uncertainty of a trial will settle even meritless claims. The weakening of the IPR system would reestablish a business model of monetizing low-quality patents that had been on the retreat in the wake of the AIA as Congress intended.

In our story, Uniloc would benefit even more from another provision of S. 2082, section 106, which negates the holding of the 2006 *eBay* case and makes injunctions presumptively available. Assuming for the sake of argument that the Uniloc patents had been valid and infringed (and they were neither), the only harm suffered would have been the loss of a very modest reasonable royalty which should be calculated based on the incremental value added by the invention. As it turns out, the accused feature of converting an instant message conversation to a telephone conference is used only rarely and represents a negligible fraction of the value of the Jabber product. Uniloc would not benefit directly from an injunction. However, the mere probability of an injunction would provide Uniloc the leverage to force its targets to settle or take a license at a price far higher than a reasonable royalty. The value to the defendant of avoiding an injunction is based on the loss of product revenue due to interrupted sales and the need to redesign. The pressure on us to settle on unfavorable terms would

have been enormous and the settlement value would have been wholly unmoored from any actual innovative value.¹⁰

The IPR “one and done” rule also has an unfortunate interplay with the liberal approach to injunctions under S. 2082. Although in our Uniloc story, the previously instituted IPR petition was also successful, under S. 2082 it is very likely that the threat of injunction against the previous petitioner would have forced a settlement before the PTAB reached a final decision. We would nonetheless have been denied an opportunity to file our own petition, leaving ourselves exposed to the threat of an injunction on a weak patent.

The *eBay* decision made it more difficult for patent assertion entities to obtain injunctions; but the Supreme Court left them available as a tool to address competitive harm that would not be readily cured by money damages. The economic effect of a renewed presumption in favor of injunctions would be to supercharge patent valuations which ultimately would be based on injunction avoidance. Patent asserters would be able to effectively avoid years of jurisprudence that has rationalized patent damages.¹¹

¹⁰ Justice Kennedy noted this concern in his concurrence in the *eBay* decision. “When the patented invention is but a small component of the product the companies seek to produce and the threat of an injunction is employed simply for undue leverage in negotiations, legal damages may well be sufficient to compensate for the infringement and an injunction may not serve the public interest.” *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 396–97, 126 S. Ct. 1837, 1842, (2006).

¹¹ See *Power Integrations, Inc. v. Fairchild Semiconductor Int’l, Inc.*, 904 F.3d 965, 979 (Fed. Cir. 2018) (“[T]he entire market value rule is appropriate only when the patented feature is the sole driver of customer demand or substantially creates the value of the component parts. . . . When the product contains other valuable features, the patentee must prove that those other features do not cause consumers to purchase the product.”); see also *Finjan, Inc. v. Blue Coat Sys., Inc.*, 879 F.3d 1299, 1311 (Fed. Cir. 2018) (“[I]f the smallest saleable unit – or smallest identifiable technical component – contains non-infringing features, additional apportionment is still required.”); See also *Ericsson, Inc. v. D-Link Sys., Inc.*, 773 F.3d 1201, 1226 (Fed. Cir. 2014) (district court could not include all 15 Georgia-Pacific factors in its damages instruction without considering their relevance to record created at trial and whether they were misleading.); See also *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292 (Fed. Cir. 2011) (evidence relying on “25 percent rule of thumb,” which was tool used to approximate the reasonable royalty rate the manufacturer of patented product would be willing to offer to pay to the

At every turn in our Uniloc story, the key provisions of the STRONGER Patents Act would likely had led to a different result. And our story is not unique. The harm to the US patent system that S. 2082 virtually guarantees would extend to diverse industries and all sizes of businesses. The money to fund litigation and settlements is at the expense of innovation and would ultimately be passed along to the consumer. The combination of erecting obstacles that render the IPR system an ineffective alternative to litigation and liberalizing the granting of injunctions in district courts will predictably lead to at least three counterproductive results: first, it will create an enormous incentive to buy up low-quality patents to attempt to extort settlements with the threat of injunction; second, it will pressure innocent infringers or legitimate companies that manufacture products with thousands of patented components to surrender to extortionate demands; and third, it will drive patent challenges back to the already bloated federal court dockets.

None of these results encourage a healthy patent system. In fact, I think the fundamental flaw in S. 2082 may be in the philosophy reflected in its name, that making patents “stronger” is always good for innovation and serves the public interest. Our nation’s founders had a quite different understanding. They saw patents as a qualified right which Congress could only confer to “promote the progress of science and useful arts,” the only enumerated Congressional power which is qualified by a specific envisioned benefit. According to James Madison, “[m]onopolies, tho’ in certain cases useful, ought to be granted with caution, and guarded with strictness agst. abuse,” and indeed “[t]here can be no just objection to a temporary monopoly” only insofar as it operates “as a compensation for a benefit

patentee during a hypothetical negotiation, was inadmissible under *Daubert*); See also *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301 (Fed. Cir. 2009)

actually gained to the community.”¹² Thomas Jefferson was the author of the original 1793 Patent Act, personally examined the first patent applications, and was himself an inventor. Yet his view was that inventions of sufficient merit, to be “worth to the public the embarrassment of an exclusive patent,” would be rare. We have struggled to find the right balance in our patent system ever since.

The AIA enacted by Congress and the *eBay* decision have been key recent milestones in achieving the balance envisioned by Jefferson and Madison. The IPR system has been a huge success as envisioned by this body. By design it is faster and less expensive than litigation in district court. Relatively few patents have been challenged, 5967 out of 4.4 million in force. Of the ones challenged, 3,428 (57%) have been deemed worthy of review and at least one claim has been invalidated in only 1,813 of them. The PTAB’s decisions to invalidate patents or uphold them have been fully upheld more than 75% of the time.¹³ The *eBay* decision which came at the beginning of a wave of a patent monetization activity in the United States has been important in protecting businesses from extortionate settlement demands and consumers from interruptions in product availability.

Contrary to doom mongering one may hear, innovation has been thriving in the United States in the wake of the AIA, *eBay*, and other patent law developments such as the 2014 *Alice* decision. Since

¹² Detached Memoranda, ca. 31 January 1820, *Founders Online*, National Archives, accessed September 9, 2019, <https://founders.archives.gov/documents/Madison/04-01-02-0549>. [Original source: *The Papers of James Madison*, Retirement Series, vol. 1, 4 March 1817–31 January 1820, ed. David B. Mattern, J. C. A. Stagg, Mary Parke Johnson, and Anne Mandeville Colony. Charlottesville: University of Virginia Press, 2009, pp. 600–627.]

¹³ Daniel F. Klodowski, David C. Seastrunk, Michael R. Galgano, IPR and CBM Statistics for Final Written Decisions Issued in February 2019, Finnegan AIA Blog (March 29, 2019) <https://www.finnegan.com/en/insights/blogs/america-invents-act/ipr-and-cbm-statistics-for-final-written-decisions-issued-in-february-2019.html> (last visited Sept. 9, 2019)

2010, US venture capital spending has increased 444% from \$26.2 billion to \$116.2 billion in 2018.¹⁴

Total US patent filings increased 21% from 520,277 in 2010 to 629,647 in 2015.¹⁵

Another common misunderstanding is that making it easier to get and enforce US patents inevitably benefits US businesses over foreign competitors. The reality is that businesses all over the world procure and enforce US patents. And while innovative US companies take full advantage of all US intellectual property laws, including trade secrets and other proprietary protections, foreign entities seek and are awarded the majority of US patents. Under S. 2082, foreign patent owners would inevitably reap the lucrative rewards of enforcing low quality patents against US businesses.

My concern with these provisions does not mean that I believe the system is perfect and cannot be improved. Even if statistics suggest the Patent Trial and Appeal Board (PTAB) usually makes the right decision, the loss of a key patent can be very consequential. Many businesses invest in reliance of continued patent protection for their ideas. Even if relatively few pharmaceutical patents have been successfully challenged in the pharmaceutical industry, a single drug patent may protect billions of dollars of investment from becoming valueless as a proprietary drug becomes available as a generic. Some businesses may require certainty in patent rights to attract investment. The risk of losing a patent in the PTAB can be a serious concern.

Fortunately, the AIA allows iteration and improvement of IPR procedures. Many changes are best left to the USPTO itself. Under the leadership of USPTO Director and Undersecretary of Commerce Andrei Iancu, the USPTO has continued to evolve the IPR procedure. Recently, the USPTO has clarified the

¹⁴ From Explore the Data, PWC Moneytree, <https://www.pwc.com/us/en/industries/technology/moneytree/explorer.html#/type=history&category=¤tc=Q3%202018&qRangeStart=Q1%202000&qRangeEnd=Q2%202019&chartType=bar> (last visited on Sept. 9, 2019)

¹⁵ U.S. Patent Statistics Chart Calendar Years 1963 – 2015, U.S. Patent and Trademark Office PTMT, https://www.uspto.gov/web/offices/ac/ido/oeip/taf/us_stat.htm (last accessed on Sept, 9, 2019)

standard for handling multiple petitions¹⁶, changed the claim interpretation standard in IPR¹⁷, eliminated the practice of adding extra judges to PTAB panels in favor of a more transparent procedure for making important PTAB decisions precedential to assure consistency¹⁸, and initiated a pilot procedure to make it easier for the owners of challenged patents to amend claims.¹⁹ I agree with some of these changes and have quibbles with others but I am a firm believer in continued experimentation and incremental improvement by the USPTO.

I think it would be wrong, however, to tie the hands of the current Director or a future one in some of the ways proposed by S. 2082. Consider, for example, the issues posed by serial petitions. Supporters of the “one and done” approach of S. 2082 that I have criticized believe that multiple petitions against the same patent are a form of harassment. I agree that duplicative petitions do not make sense in specific circumstances and that the same entity should not be able to endlessly file seriatim petitions until one succeeds. However, in reality there are legitimate rationales for multiple challenges to the same patent. A single petitioner may need to deal with alternative claim constructions or uncertainty about which products are accused. Under the stringent estoppel rules of the AIA, any arguments not included in an IPR petition cannot be raised later in litigation.²⁰ A later petitioner may find better prior art and should not be held responsible for shortcomings of a challenge brought by an unaffiliated earlier petitioner.

¹⁶ USPTO, Trial Practice Guide Update (July 2019), <https://www.uspto.gov/sites/default/files/documents/trial-practice-guide-update3.pdf> (last accessed on Sept. 9, 2019)

¹⁷ Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board, 83 FR 51340 (effective Nov. 13, 2018)

¹⁸ USPTO, Revisions to Standard Operating Procedures: paneling and precedential decisions, <https://www.uspto.gov/patents-application-process/patent-trial-and-appeal-board/procedures/revisions-standard-operating> (last accessed Sept. 10, 2019) (announcing new operating procedures for panel formation)

¹⁹ Notice Regarding a New Pilot Program Concerning Motion to Amend Practice and Procedures in Trial Proceedings Under the America Invents Act Before the Patent Trial and Appeal Board, 84 Fed. Reg. 9497-9507

²⁰ 35 U.S.C.A. § 315(e)(2)

Fortunately, the USPTO has been in a good position to assess the multiple petition phenomenon and adjust its practices accordingly. The agency has collected statistics showing that multiple petitions are in fact relatively uncommon and serial challenges by the same petitioner are quite rare.²¹ The AIA leaves the agency ample discretion to set its own standards for accepting petitions.²² Multiple PTAB decisions including *General Plastics*²³, *Valve Corp.*²⁴, and *Ivantis Inc.*²⁵, have addressed the issue of serial petitions in largely sensible ways based on the PTAB's real-world experience. The USPTO has also recently announced new guidance that requires petitioners to explain the rationale for multiple petitions. The STRONGER Patents Act on the other hand simplistically assumes that multiple petitions are always unjustified and creates a needlessly rigid regime allowing for only one institution for a given patent claim. The experts at the PTO would be blocked from crafting rules to deal with the complexities inherent in the strategies used by patent owners and petitioners.

The bill also takes the new claim construction standard adopted only recently by the USPTO and locks it into place by statute, ignoring the very real possibility that it will lead to unintended consequences that would prompt a return to the Broadest Reasonable Interpretation ("BRI") standard. Federal district courts, unlike the PTAB, decide claim construction in the context of an infringement accusation against a specific product rather than in the abstract. Under the USPTO's new approach to claim construction, courts may well adopt broader, albeit still reasonable, interpretations than previously

²¹ David P. Ruschke, William v. Saindon, An Analysis of Multiple Petitions in AIA Trials, Chat with the Chief (Oct. 24, 2017) https://www.uspto.gov/sites/default/files/documents/Chat_with_the_Chief_Boardside_Chat_Multiple_Petition_SStud_20171024.pdf (last accessed on Sept. 9, 2019)

²² 35 U.S.C.A. § 325(d)

²³ General Plastic Industrial Co., Ltd. v. Canon Kabushiki Kaisha, Case IPR2016-01357 (PTAB Sept. 6, 2017) (Paper 19)

²⁴ Valve Corp. v. Elec. Scripting Prod., Inc., IPR2019-00084, Paper 11 (PTAB April 2, 2019)(first-time petitioner Valve Corp. was denied institution under the General Plastic factors, largely because another party (HTC) had already filed a similar IPR earlier)

²⁵ Ivantis Inc., v. Glaukos Corp., IPR2019-00475, (PTAB March 4, 2019)(Ivantis' second petition, filed after denial of its first petition, was denied under the General Plastic factors)

adopted by the PTAB. The unfortunate result could be that under the court's construction, the product is found to infringe even if similar technology is in fact prior art but outside the scope available to the PTAB under its narrower construction. Infringement is found under the broader scope used in court even though had the PTAB used the same scope, the patent would have been invalidated. If this phenomenon does indeed become a concern in the future it will make sense to revisit claim construction standards at the PTAB. The AIA wisely left the details of claim construction procedures for the USPTO to set based on practical experience rather than setting a rigid rule as done by S. 2082. The STRONGER Patents Act even takes away the Director's power to decide how PTAB panels will be chosen. Currently, the 3-judge panel that decides whether to institute a review will also decide the outcome of that review. The bill delves deeply into detailed USPTO procedures and requires that a completely new panel decides the review with no participation by any of the judges who decided institution.²⁶ Some observers apparently believe that the judges who already decided to institute an inter partes review are too biased to determine validity even though seemingly similar issues are posed when a judge supervises a trial after deciding summary judgment motions or even when the Supreme Court deliberates over an opinion after having decided a petition for certiorari. It seems appropriate to me that the Director and his staff balance this concern against the costs in time and money of having two panels involved in every instituted review.

Another area of concern is that S. 2082 restricts the IPR procedure to defendants and others specifically accused of infringement.²⁷ I understand that this provision is ostensibly there to deal with an earlier phenomenon of hedge fund chicanery where financial speculators would use the IPR

²⁶ STRONGER Patents Act, H.R. 3666, Sect. 104 (2019)

²⁷ STRONGER Patents Act, H.R. 3666, Sect. 102 (2019)

procedure to manipulate the stock price of companies that depend on key patents.²⁸ But these shenanigans seem to have never been all that profitable and have therefore died out. If they did reemerge the appropriate solution would be found in securities law, not the Patent Act. The IPR process should remain open, as originally intended, to consortiums and public interest organizations that can shoulder the costs of invalidating weak patents.

One area of needed change is the quality of issued patents. Improperly granted patents impose tremendous costs by leading to disputes, litigation, and frustrated expectations for patent owners. Director Iancu has been entirely correct to focus on reliable and certain patent rights and in particular improving the quality of search and examination by using recent and forthcoming search technologies. Recent academic work has shown that given the costs imposed by unwarranted patent grants, the USPTO spends too little time and money in examination.²⁹ I applaud the leadership of Senator Coons in successfully enacting the Big Data and IP Act³⁰ to extend the USPTO's fee setting authority for another ten years. I support the fee increases proposed by the USPTO in its recent Notice of Proposed Rulemaking ("NPRM"). The proposal contained within the STRONGER Patents Act to further protect the fees collected by the USPTO is also worthwhile. We look forward to even greater efforts within the USPTO to improve the quality of granted patents.

But Congress should also act to improve patent quality by bolstering the IPR procedure rather than weakening it. Current law limits the time in which a defendant can file an IPR petition to a year after

²⁸ Fisher, D. (2015). Bass Goes Fishing: Trouble ahead for Pharma, or for Hedge-Fund Trolls? *Forbes*. [online] Available at: <https://www.forbes.com/sites/danielfisher/2015/07/15/bass-goes-fishing-trouble-ahead-for-pharma-or-for-hedge-fund-trolls/#38828484299a> (accessed 9 Sep. 2019)

²⁹ See *generally* Frakes, Michael and Wasserman, Melissa F., *Irrational Ignorance at the Patent Office* (November 13, 2018). *Vanderbilt Law Review*, Vol. 72, 2019, Forthcoming; *Duke Law School Public Law & Legal Theory Series No. 2018-64*.

³⁰ BIG Data for IP Act, S. 2601, 115th Congress (2017 – 2018)

having been sued.³¹ Congress should clarify that the clock starts only for the specific patent claims asserted in a complaint so that defendants are not forced to choose between wasting money on challenging potentially irrelevant patent claims and forever giving up the right to use the IPR procedure on patent claims that the plaintiff may add later. Furthermore, in the recent *Click to Call*³² decision, the CAFC interpreted the AIA as requiring that even if a complaint is voluntarily dismissed with prejudice, the clock continues to run from the complaint's filing date. This issue is now under appeal to the Supreme Court but could be addressed legislatively.

Furthermore, the courts have for too long allowed crafty patent owners to stretch the bounds of their patents beyond what was in fact actually invented. Congress should enact changes to 35 USC 112 to clarify that the full scope of a patent claim must be described and enabled in the original filing and that claims written in functional language should be limited to the implementations described by the inventor and equivalents. Challenges to validity under section 112 should be decided as a matter of law in the courts and also be available within the IPR process.

Mr. Chairman and Distinguished Members of this Committee, thank you for the opportunity to share my thoughts. A balanced patent system that encourages innovation is critical to our country's economy. In that I think we can all agree. But I hope you will understand my perspective that when it comes to the patent system "stronger" isn't always "better."

³¹ 35 U.S.C.A. § 315(b)

³² *Click-To-Call Techs., LP v. Ingenio, Inc., YellowPages.com, LLC*, 899 F.3d 1321 (Fed. Cir. 2018)