

STATEMENT OF

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ON

AMERICAN INNOVATION AT RISK: THE CASE FOR PATENT REFORM

BEFORE THE

SUBCOMMITTEE ON COURTS, THE INTERNET, AND INTELLECTUAL PROPERTY
COMMITTEE ON THE JUDICIARY
HOUSE OF REPRESENTATIVES
CONGRESS OF THE UNITED STATES

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Chairman Berman, Ranking Member Coble, and Members of the Subcommittee:

I am Executive Director of the Public Patent Foundation (“PUBPAT”), a not-for-profit legal services organization whose mission is to represent the public's interests in the patent system, most particularly the public's interests against the harms caused by undeserved patents and unsound patent policy.¹ PUBPAT provides the general public and specific persons or entities otherwise deprived of access to the system governing patents with representation, advocacy and education. PUBPAT is funded by grants from the Rockefeller Foundation, the Echoing Green Foundation, the Rudolph Steiner Foundation and the Open Society Institute and accomplishes its mission through three core activities: (i) protecting the public domain from being recaptured in new patents, primarily by asking the U.S. Patent & Trademark Office (“PTO”) to reexamine patents of questionable validity, (ii) advocating for improvements to the patent system and (iii) educating the public about how patents impact everyday life.

ALL AFFECTED INTERESTS DESERVE TO BE
REPRESENTED WHEN MAKING PATENT POLICY

Before commenting on patent reform substantively, I would first like to make a very important point about the process by which patent policy is formed. Despite what many people believe, the patent system has extremely far reaching effects on all Americans. Specifically, undeserved patents and unsound patent policy harm the public by making products and services more expensive, if not completely unavailable, by preventing scientists from advancing technology, by unfairly prejudicing small businesses, and by restraining civil liberties and individual freedoms. Although the public can indeed benefit from a properly functioning patent system, since patents are nothing short of government sanctioned restraints on freedom and competition, the public can also be severely harmed by errors within the patent system. For that reason, patent policy should be crafted with full knowledge of all of the effects, both positive and negative, the patent system has on all people.

Unfortunately, however, it is too often the case that not all of the interests affected by the patent

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system are adequately represented in patent policy discussions. Specifically, the interests of the non-patent holding public are almost always absent from any meaningful participation in decision making about the patent system, despite the fact that they can bear the brunt of its burdens. This lack of representation of the public's interests is due in part to the fact that the patent community culture tends to dismiss and exclude the opinions of those it sees as unsophisticated outsiders, but it is mostly because the general public does not yet realize how much the patent system actually affects them. Regardless, the result is that the ears of lawmakers are monopolized by the concentrated group of special interests that benefit from an enlarged patent system, namely patent holders and patent attorneys, while the general public interest in favor of a more balanced patent system is rarely heard.

As with any body of law that applies to and affects all Americans, patent policy should be made with consideration of all of the public's interests, not just the specific interests of patent holders, patent practitioners, and large commercial actors.² Thus, I am extremely pleased to have been invited to represent those otherwise underrepresented interests in my testimony today and I applaud your commitment to ensuring that all affected interests are represented in patent policy discussions in the future.

PATENT QUALITY IS A CRITICAL ISSUE FOR PATENT REFORM

There are several ways to strengthen the patent system so that it benefits all Americans. One of the most important issues on which to concentrate is ensuring high patent quality, because the issuance of undeserved patents exacts a significant price on the American people without any social benefit. Thus, while other issues are also important, true patent reform cannot be accomplished without paying specific attention to the issue of patent quality.

POOR PATENT QUALITY TODAY IS CAUSING SUBSTANTIAL PUBLIC HARM

There are several sources to help determine the current level of quality for U.S. patents, and all of them paint a very clear picture that patent quality today in America is extremely poor. One source, an ongoing project of the University of Houston Law School, which is known for having one of the most reputable patent departments in the country, tracks the results of patent litigation and empirically categorizes those results according to the specific issues involved with each case.³ Looking at their data, the rate at which patent validity issues were resolved against the patent in litigation was 35% in 2005. This means that roughly one-third of issued U.S. patents

2 Jonathan Krim, *Evaluating a Patent System Gone Awry*, Washington Post, May 5, 2005, E01 (stating that the current patent reform legislative process has been “effectively hijacked by large companies and powerful patent-lawyer groups”).

3 Patstats, available at www.patstats.org.

that had their validity challenged in court were determined to have been undeserved.

When looking at this data, there are some caveats to keep in mind. First, it could be argued that the rate at which patents asserted in litigation are determined to be invalid is not applicable to the general pool of all issued patents, since roughly only 2% of issued patents end up getting litigated. While this may be a valid point, it does not mean that the actual validity rate of issued patents is higher or lower than that of litigated patents, because it is generally only the patent owner who can put a patent in litigation. Therefore, many issued patents do not get their validity challenged in litigation because the patent owner chooses not to assert the patent.

Second, even if these statistics are limited to just litigated patents, they are still extremely important because litigated patents tend to have a much greater significance to the public, on average, than non litigated patents.⁴ To draw an analogy, if 35% of the people on death row who challenged their convictions were actually proven innocent, that wouldn't necessarily mean that 35% of all people on death row, much less 35% of all convicted criminals, were actually innocent (that ratio could be higher or lower), but the severity of each mistake regarding someone on death row is extreme nonetheless. Similarly, the technology involved with litigated patents is almost without exception extremely valuable, so any mistakes regarding the validity of those patents can cause severe harm in and of itself, regardless of the validity rate of issued patents in general.

Another source of information about patent quality is the PTO's own statistics relating to reexamination, which show that about 67% of patents for which reexamination requests are made are eventually either canceled or changed by the PTO.⁵ The PTO's reexamination statistics also show that more than 90% of all requests for reexamination are granted, an action that requires a finding that a "substantial new question of patentability" be raised.⁶ These statistics show that a great number of patents issued by the PTO nonetheless have "questionable" validity.

One other way to get a picture of U.S. patent quality is to compare our system's patent application outcomes to those of other well respected patent offices. Firstly, the USPTO ultimately grants patents from 85% of all original applications, while that rate is only 64% in Japan.⁷ However, a better comparative picture is presented by a recent study of roughly 70,000 issued U.S. patents and their counterpart foreign applications. The study found that the counterparts to patent

4 John R. Allison, Mark A. Lemley, Kimberly A. Moore & R. Derek Trunkey, *Valuable Patents*, 92 *Georgetown Law Journal* 435 (2004).

5 Paul F. Morgan & Bruce Stoner, *Reexamination v. Litigation – Making Intelligent Decisions in Challenging Patent Validity*, 86 *JPTOS* 6, 441-463 (2004).

6 35 U.S.C. § 312 (2007).

7 Cecil D. Quillen, Ogden D. Webster, and Richard Eichman, *Continuing Patent Applications and Performance at the U. S. Patent and Trademark Office-Extended*, 12 *Fed. Cir. B.J.* 35 (2002).

applications issued in the U.S. were only issued by the European Patent Office 72.5% of the time and by the Japan Patent Office only 44.5% of the time.⁸ This evidence shows that the U.S. Patent Office is indeed granting a very high proportion of patents.

Patents that are undeserved can cause substantial harm to the American public, because an issued patent – regardless of its true legitimacy – can be used to threaten and impede otherwise permissible, socially desirable, conduct. The threat of having to incur the costs and potential liability of a patent lawsuit is one that few individuals or small businesses can withstand, even if the patent is of doubtful validity. This chilling effect, when caused by a patent that would be ruled invalid if challenged, provides no social benefit to the American people, because the patent contains nothing new; its invalidity means that whatever it claims or describes was either already known or was obvious in light of what was already known. This effect can be devastating to the American people.

For example, there have been several patents that were used to preclude competition in markets worth billions of dollars that were later proven to be undeserved.⁹ Poor patent quality is also partially to blame for the intensive increase in patent litigation, the dramatically higher cost of patent litigation, and the rapid rise of patent speculators – mostly contingency fee patent litigators – who are more than willing to gamble the few million dollars it costs to assert questionable patents against large and small commercial actors for the chance of reaping windfall judgments.

Further, the over-patenting that results from low patent quality leads to thickets of patents that choke first inventors with countless small improvement patents claimed by others. In what is akin to grade-inflation, by granting too many people too many patents, those inventors who legitimately did derive wonderful new technology get less credit than they deserve because of all the other patents that are issued in the related field. This results in less incentive for the truest of innovators amongst us and instead encourages investments in making minor improvements to the inventions of others. These are, unfortunately, but a few of the many harmful effects that poor patent quality is having on the American public today.

⁸ Paul H. Jensen, Alfons Palangkaraya & Elizabeth Webster, *Disharmony in International Patent Office Decisions*, 16 Fed. Cir. B.J. 679 (2006).

⁹ *Bristol-Myers Squibb Co. v. Ben Venue Labs., Inc.*, 246 F.3d 1368 (Fed. Cir. 2001) (patent preventing competition to \$1.6B per year cancer treatment, Taxol, later proven invalid); *Eli Lilly & Co. v. Barr Labs.*, 251 F.3d 955 (Fed. Cir. 2001) (patent barring alternatives to \$2.9B per year antidepressant medication, Prozac, later proven invalid).

TODAY'S POOR PATENT QUALITY IS ONLY PARTIALLY
ATTRIBUTABLE TO THE PATENT ISSUANCE PROCESS

The problem of poor patent quality is often cast simply in terms of the PTO's inability to find prior art, which would suggest the simple solution of giving the PTO more funding so examiners can spend more time searching. But the problem of patent quality is much larger than that and it cannot be solved by just providing additional resources to the PTO. A more sophisticated view shows that there are three interrelated causes for today's poor patent quality.

The first cause of poor patent quality is that the *ex parte* examination process for patent applications denies examiners the ability to reject patent applications of questionable validity because it is crippled by perverse incentives and perspectives.¹⁰ Resource limits on an examiner's ability to search for prior art are indeed part of the problem, but there are also several other contributing factors. First, there are financial and political incentives placed on examiners to grant patents, which is a vestige of the PTO's legacy of its "help customers get patents" philosophy. Second, the availability of continuation applications allows patent applicants to gain an unfair advantage in the patent application process.¹¹ Third, there are inadequate options to correct patent issuance errors, both pre-grant or post-grant. Lastly, third parties are not sufficiently incentivized to disclose prior art to the PTO or the public either before or after issuance.

The second cause of poor patent quality is the threshold of inventiveness required to receive a patent. The overarching problem here is that the Court of Appeals for the Federal Circuit ("CAFC"; "Federal Circuit") views patents as entitlements, and places high burdens on the examiner corps or third party challengers to patents to prove otherwise. The Federal Circuit has severely whittled down the obviousness bar to patentability by implementing a "teaching-suggestion-motivation" requirement, which one Supreme Court Justice rightly described as "gobbledygook." The Federal Circuit has also exalted the role of "secondary considerations" in the analysis of patentability, which work against a finding of obviousness, and implemented a super-presumption of validity that is much higher than what is reasonably warranted.

The third cause of poor patent quality is the fuzziness of patent boundaries. Unlike tangible

¹⁰ Shubha Ghosh & Jay Kesan, *What Do Patents Purchase? In Search of Optimal Ignorance in the Patent Office*, 40 Hous. L.R. 1219, 1225–26 (2004); Mark A. Lemley, *Rational Ignorance at the Patent Office*, 95 NW. U. L.R. 1495, 1499–1500 (2001); Cecil D. Quillen, Jr. & Ogden H. Webster, *Continuing Patent Applications and the Performance of the U.S. Patent and Trademark Office*, 11 Fed. Cir. B.J. 1, 13 (2002); John R. Thomas, *Collusion and Collective Action in the Patent System: A Proposal for Patent Bounties*, 2001 U. Ill. L.R. 305, 314–15.

¹¹ "Continuation applications" includes continuations, continuations-in-part, divisionals and Requests for Continued Examination (RCEs).

forms of property, such as real estate, patent boundaries are almost always poorly defined. Many patents are written in vague or obscure language, claim construction procedures are uncertain and vary from judge to judge, existing claims are hidden in the pipeline at the Patent Office, and the use of abstract terms allows patents to cover far more technology than what was actually invented. One sign of how difficult it is for people to determine exactly what a patent does and does not cover is the fact that more than a third of all district court judges, after performing a thorough analysis of a patent's claims, have their construction of those claims reversed by the CAFC.¹² If Federal Judges can't agree on what claim terms mean, how can we expect the average American business person or individual inventor to do so. This inability to get a clear understanding of what a patent does or does not cover inevitably leads actors to make decisions regarding behavior based on their own best guess at interpretation, which too often leads to an avoidance of activity that would be beneficial for that person to undertake.

In information technology related industries in particular, indeterminate boundaries, questionable validity, and the sheer number of patents makes clearance searches prohibitively costly and uncertain. A small e-commerce business needs to review over 11,000 patents, many of which include vague terms of uncertain breadth, such as the notorious E-Data patent that referred to "information manufacturing machines." Although that patent described an in-store kiosk for producing audio tapes and similar digital recordings on demand, its owner asserted the patent against hundreds of companies doing general e-commerce, initiating over 40 lawsuits. PUBPAT board member Jim Bessen has been conducting soon-to-be-published empirical study which shows that this problem has resulted in a dramatic decline of the cost-effectiveness of patents to the point where they impose a tax on innovation in most sectors.

There are also systemic and institutional issues that contribute to the patent quality problem. Professors Jaffe and Lerner correctly identify two major causes of the current patent quality problem in their book: the creation of the Federal Circuit and PTO funding being derived from fees.¹³ The later causes capture by institutional self-interest, which invariably leads to policies driven by volume rather than quality.

Unfortunately, as I have attempted to show through this discussion, the patent quality problem has not been caused simply by inadequate examiner searching. Rather, it has been caused by a multitude of factors existing at various levels of our patent system.

12 Kimberly A. Moore, *Markman Eight Years Later: Is Claim Construction More Predicable?*, 9 Lewis & Clark L. Rev. 231 (2005).

13 Adam Jaffe & Josh Lerner, *Innovation and Its Discontents* (2004).

THERE ARE SEVERAL WAYS TO ENSURE HIGH PATENT QUALITY

Once we understand the causes of poor patent quality, it becomes readily apparent that there are several ways to improve and maintain a high level of patent quality. First, the improper incentives placed on the Patent Office to grant patents should be eliminated, so that the decision of whether to grant or reject a patent application can be made on a purely scientific and technological basis uninfluenced by political or financial concerns. Second, continuation applications, which allow patent applicants to get an unlimited number of bites at an unlimited number of apples, should be completely eliminated, because they provide no legitimate basis for advancing technology.¹⁴ Third, a vigorous standard for patentability should be reinstated. Fourth, a rigorous post-grant opposition procedure can be a valuable and efficient tool to perform quality assurance on issued patents so long as the public is enabled to bring an opposition proceeding for a patent whenever they are threatened by it. Fifth, the Federal Circuit's super-presumption of validity should be negated. Lastly, in order to address the problem of fuzzy patent boundaries, a patent's validity should always be analyzed according to the broadest reasonable interpretation of its claims, because that is the construction of the patent that the public will generally abide by until the patent is reviewed by a court, and the currently dormant statutory prohibition against indefinite claim language should be awakened and strengthened.

Remove Improper Incentives on PTO to Grant Patents

Funding of the PTO is an ever present issue that affects all aspects of patent quality. As such, perhaps the presentation of a contrary viewpoint about whether the PTO is adequately funded is worthwhile, especially since the impression is given that without more funding of the PTO, patent quality will continue to degrade.

The failings of the PTO can be largely attributed to the improper incentives placed on it and its employees to issue patents.¹⁵ Specifically, financial incentives encourage the issuance of patents, including those of questionable validity.¹⁶ At the agency level, the PTO derives its income from fees, largely application and maintenance fees. These fees increase in direct proportion to the

14 "Continuation applications" includes continuations, continuations-in-part, divisionals and Requests for Continued Examination (RCEs). The only possible exception to this proposal is divisions filed pursuant to a Sec. 121 requirement made by the PTO for restriction.

15 Jay P. Kesan & Andres A. Gallo, *Why "Bad" Patents Survive in the Market and How Should We Change?—The Private and Social Costs Of Patents*, 55 Emory L.J. 61, 76 (2006) ("The Patent Office has an incentive to grant patents without being unduly concerned about the quality of its examination process.").

16 Zachary Roth, *The Monopoly Factory*, Washington Monthly, June 2005 ("The patent office, operating under [] institutional incentives to push more patents out the door, has set up a system that encourages individual examiners to green-light more of the applications that cross their desks").

number of patent applications received and the number of patents issued. The more patents issued by the PTO, the more fees it receives, both directly through maintenance fees, and indirectly through the encouragement of more patent applications, each with an application fee. As such, the PTO as an agency is financially incentivized to issue, rather than reject, patents. This has led to a deeply ingrained culture where patent applicants are viewed as “customers” of the PTO, which leads the PTO to be even more heavily biased towards issuing patents in an effort to please those “customers.”

In fact, the PTO today ultimately issues patents from 85% of all applications, as is much more favorable to patent applicants than either the European Patent Office or the Japan Patent Office.¹⁷ Although many of the patents issued by the USPTO are deserving, as discussed above, many of them are not. The PTO's high rate of issuing patents is directly responsible for its receiving unmanageable numbers of applications. However, that burden is not properly dealt with by merely increasing the PTO's funding so that it can issue more patents and thus encourage the filing of even more applications. Rather, the burden on the PTO is properly dealt with by removing the improper incentives on it to issue patents. It is perverse that, under the current system, if the PTO were to reject undeserving patent applications such that the number of issued patents decreased, it would suffer financially.

Financial incentives placed on the PTO to issue patents do not stop at the agency level. Rather, they trickle down all the way to individual employees. Through a quota system, patent examiners are given more credit, and evaluated more favorably, if they issue, rather than reject patents. An examiner who desires to reject an application faces a limitless amount of work, as each time she makes a final rejection of the application the applicant can force her to revoke the rejection by simply filing a continuation application. Much of this additional work receives no extra credit under the quota system. However, if the patent examiner instead chooses to issue an undeserving patent application rather than standing by her rejection, she will receive the same amount of credit for doing a much simpler thing. She will also save herself hours of work that she can use to earn credit by working on other applications.

These incentives are perverse. The PTO and its employees should be rewarded, not penalized, for improving patent quality. There should be absolutely no bias to either issue or reject a patent application. The PTO and the Examiner Corps should be free to make their best scientific and technological judgment about pending patent applications without any financial pressures or

¹⁷ Cecil D. Quillen, Ogden D. Webster, and Richard Eichman, *Continuing Patent Applications and Performance at the U. S. Patent and Trademark Office-Extended*, 12 Fed. Cir. B. J. 35 (2002); Paul H. Jensen, Alfons Palangkaraya & Elizabeth Webster, *Disharmony in International Patent Office Decisions*, 16 Fed. Cir. B.J. 679 (2006) (finding that only 72.5% of EPO applications and 44.5% of JPO applications corresponding to a selection of roughly 70,000 issued U.S. patents were granted by the EPO and JPO, respectively).

incentives. Some ways to accomplish this goal may include (i) ridding the patent application review process of any influence by financial or political factors, (ii) rewarding examiners by the number of hours that they dedicate to an application, not the number of applications that they bring to a close, and (iii) creating a mechanism for independent oversight of the PTO's administrative procedures to ensure that they do not place bias on examiners to either issue or reject applications.

Eliminate or Curtail Continuation Applications

Continuation applications, which includes continuations, continuations-in-part, divisionals and Requests for Continued Examination (RCEs), provide applicants who have had their patent applications finally rejected the ability to force the PTO to revoke the finality of the rejection simply by paying a fee for a new filing. Thus, it is impossible for an examiner to ever actually finally reject a patent application so long as the applicant has sufficient financial resources to keep paying for continuation applications.¹⁸ The justifications given for continuation applications – that applicants need to be free to add new claims to an application years after it is filed – lack any technological merit, as any claims desired by a patent applicant can and should be included in the original application or an amendment to it.

Applicants abuse the continuation application process in many ways. Some monitor commercial actors who attempt to design around a previously issued patent and file claims in a continuation application that are directed specifically at the design-around efforts. These applicants lie in wait until the commercial actor launches or otherwise commits to their design-around product and they then quickly get the PTO to issue the continuation patent, which has a greater likelihood of ensnaring the commercial actor because its claims were written with the design-around product specifically in mind. Such perverse manipulation of the patent system should not be allowed to occur.

A recent study showed that about one third of patent applications are continuations.¹⁹ This not only provides opportunities for the gamesmanship discussed above, but it also results in a significant amount of rework by patent examiners, which adds inefficiency into the patent application process. As such, continuation applications should be eliminated in their entirety.²⁰ If an applicant believes that they deserve a patent on an application that has been finally rejected by an examiner, they already have the right to pursue appeal to the Board of Patent Appeals within the PTO. And if they don't like the result of that appeal, then they also have the right to

¹⁸ Mark A. Lemley & Kimberly A. Moore, *Ending Abuse of Patent Continuations*, 84 B. U. L. Rev. 63 (2004).

¹⁹ Lemley & Moore, 85 B. U. L. Rev. at 69.

²⁰ The only possible exception to this proposal is divisions filed pursuant to a Sec. 121 requirement made by the PTO for restriction.

appeal to the Federal courts. Therefore, under a system without continuation applications, applicants would still be afforded plenty of chances to make their case for a patent.

Reinstate a Vigorous Standard for Patentability

One of the largest factors negatively impacting patent quality today is the Federal Circuit's erosion of obviousness as a bar to patentability. The CAFC has significantly weakened obviousness as a second requirement of patentability above and beyond novelty by requiring a "teaching, suggestion, or motivation to combine" two or more references to support an obviousness finding.²¹ By doing so, the CAFC has dismissed the knowledge of one having ordinary skill in the art, despite the fact that the Patent Act requires a consideration of such knowledge as part of the obviousness test.²²

Not only has the Federal Circuit created this additional requirement to prove a patent is obvious out of whole judicial cloth, it has also usurped the statutory language regarding obviousness with so-called "secondary considerations," which the CAFC believes should be the primary focus in an analysis of obviousness. By, for example, focusing on unexpected economic returns rather than on the nature of the technological advance, consideration of secondary factors protects the validity of patents that would otherwise be found to be obvious.

This dramatic shift in law by the Federal Circuit is not only in conflict with the Patent Act, it also implements a perverse policy choice that favors the issuance of patents. A lower bar of obviousness also causes races to patent insubstantial improvements, which diverts resources away from more promising lines of inquiry.²³

As such, even though a case regarding this issue is now pending at the Supreme Court, I urge you to amend Section 103 to reinvigorate the obviousness standard.²⁴ More specifically, introducing a provision negating any requirement for "secondary considerations" or a "teaching, suggestion, or motivation to combine" and replacing it with the proper "substantial technological advance" standard – advocated by the U.S. Government in the currently pending *KSR v. Teleflex* Supreme Court case – would go far to make obviousness a true bar to patentability once again.

21 35 U.S.C. § 103 (2007); *Teleflex Inc. v. KSR International Inc.*, unpublished (2005) (available at <http://fedcir.gov/opinions/04-1152.pdf>).

22 35 U.S.C. § 103 (2007); *Brief of Twenty-Four Intellectual Property Law Professors as Amici Curiae in Support of Petitioner*, *KSR International CO. v. Teleflex INC.*, et al., U.S. No. 04-1350.

23 Arti K. Rai, *Addressing the Patent Gold Rush: The Role of Deference to PTO Patent Denials*, 2 Wash. U. J.L. & Pol'y 199, 221–26 (2000).

24 *KSR International Co. v. Teleflex, Inc.*, et al., Supreme Court No. 04-1350 (*cert granted* June 26, 2006; *argued* November 28, 2006).

Implement a Strong Post-Grant Opposition Procedure

The idea of a strong post-grant opposition procedure is a good one. In most respects, such a procedure would serve the public interests by helping to ensure that undeserved patents are proven invalid as quickly and as efficiently as possible after their issuance. Of course, it should be the goal of the patent system to improve the patent issuance process so that no undeserving patent is ever issued. However, until that goal is achieved, implementing effective mechanisms for nullifying undeserved patents will provide significant benefit, so long as they are not seen as being satisfactory solutions to the problem of patent quality, because even with an effective post-grant opposition procedure, the amount of public harm caused by undeserved patents will still be significant.

In order to be a valuable and efficient tool to perform quality assurance on issued patents, the public must be enabled to bring post-grant oppositions at any time they are threatened by a patent. Although the mere existence of a patent poses a grave threat to the public, meaning that the public should be free to bring a post-grant opposition against any patent throughout its life, at minimum, whenever a patent is affirmatively asserted by its owner it should be eligible for post-grant review.

Some characteristics of a post-grant opposition proceeding that have been proposed may cause it to have a detrimental effect on the public's interests. First, any time limit on when oppositions could be filed, especially one as short as nine months or a year, would vitiate a substantial amount of the post-grant opposition procedure's ability to route out undeserved patents. This is because many patents do not begin to cause significant public harm until years after their issuance. For instance, pharmaceutical patents often issue years before any product covered by the patent is brought to market due to the need to perform clinical trials to prove that the product is safe and effective. In information technology industries, many technologies covered by patents do not become marketable for several years after their issuance because they require some complimentary hardware or service that is not yet available or affordable. Further, many patents are sold to new owners during their term who are much more aggressive in asserting the patent against the public than the previous owner.

Thus, it is not always possible to determine within nine months or a year of a patent's issuance whether or not it is worth opposing. Forcing the public to make such decisions too soon by implementing a narrow window during which opposition proceedings could be initiated would lead to substantial waste resulting from inefficient decisions. It would also cripple the post-grant opposition procedure's ability to protect the public from the harm caused by undeserved patents. Further, if there was only a limited window during which opposition proceedings could be

initiated, some patentees may choose to game the system by not asserting their patents until after the window for opposition had closed.

Some patent holder representatives claim that maintaining post-grant opposition eligibility for the entire term of an issued patent would be undesirable. This ignores the fact that patents can be reexamined at any time during their term and that the filing of an opposition proceeding would not impact the patent holder's ability to assert the patent or receive compensation for infringement. However, if compromise is sought on this point, perhaps patent owners can be given the opportunity to prevent the filing of any opposition against their patent during any period of time that they attest not to assert it. That way, if a patent owner wants so-called “quiet title”, they can provide it themselves. However, if a patentee wishes to assert her patent against members of the public, it is indefensible that the patent not also be eligible for an efficient and quick check of its validity through post-grant review.

Another possible compromise is to provide a second window of eligibility for filing an opposition triggered by any assertion of the patent by the patent owner. A second window of eligibility upon assertion is fair because the public should be free to avail itself of a proceeding to efficiently check the validity of a patent that is being aggressively brandished by its owner. It is, of course, requisite that eligibility to file an opposition be open to the entire public, just as with reexamination proceedings, because an undeserved patent harms the entire public, regardless of whether it is only being directly asserted against one specific party. This is especially true if the parties against whom a patent is being directly asserted either cannot afford to represent themselves in an opposition proceeding or do not dare do so for fear of retribution by the patentee.

Negate the Federal Circuit's Super-Presumption of Validity

Another area for attention is the presumption of validity accorded to issued patents. The Federal Circuit has placed a very high burden of proof on defendants to overcome the statutory presumption of patent validity, requiring that parties challenging the validity of a patent must do so with “clear and convincing” evidence.²⁵ This is a much higher standard than reasonably justified by the state of patent quality today, and it also ignores the fact that the statute is nothing more than boilerplate administrative law language whereby administrative actions are presumed valid and the burden of production is on the party challenging the action.²⁶

Instead of the Federal Circuit's super-presumption of validity, a more sound standard would only

²⁵ 35 U.S.C. § 282 (2007); *Am. Hoist & Derrick Co. v. Sowa & Sons, Inc.*, 725 F.2d 1350, 1360 (Fed. Cir. 1984).

²⁶ *Citizens to Preserve Overton Park v. Volpe*, 401 U.S. 402, 415 (1971).

require a party challenging the validity of a patent to come forth with a “preponderance of evidence” proving the patent invalid. Not only is a preponderance of evidence standard for patent invalidity more normatively and statutorily correct, it also comports with the standard used by the PTO in reviewing patent applications and patents under reexamination.

It is especially nonsensical to apply a higher burden for proving a patent invalid in litigation in light of prior art that was not reviewed by the PTO during the application process. There is absolutely no justification for applying a super-presumption of validity in the face of new art against which a patent has never been reviewed. Therefore, I urge you to amend the Patent Act to expressly state that the presumption of validity accorded to issued patents shall only require that a party challenging a patent must come forth with a “preponderance of evidence” showing that it is invalid.

Clarify Patent Boundaries By Checking Patent Validity Against the Broadest Reasonable Scope of the Claims and By Awakening and Strengthening the Rule Against Indefiniteness

The process of discerning the precise scope of a patent's claims is known as claim construction. This process exists because patent claims almost always contain words of arguable or ambiguous meaning. Roughly ten years ago, the courts chose to define claim construction as a matter of law to be resolved by a trial judge and reviewed *de novo* on appeal.²⁷ Unfortunately, the *Markman* process has resulted in less predictability and certainty regarding a patent's scope because, until a *Markman* hearing takes place, no one knows what a patent does or does not cover. This is the fuzziness of patent boundaries issue I discussed above as one of the prime causes of poor patent quality.

Many patentees exploit this uncertainty by alleging their claims are extremely broad only to later argue their patent claims are narrow when faced with a strong invalidity challenge. Since it is possible for a court to interpret a patent's claims broadly, the public is forced to abstain from practicing anything that could conceivably be considered covered by an unconstrued patent's claims. If a court later interprets the claims more narrowly, then the public needlessly avoided practicing technology that is not within the court's construction but that was within the broadest reasonable construction of the claims.

To avoid this wasteful chilling of permissible activity, the PTO uses the broadest reasonable interpretation possible when examining the validity of patent claims. This is the same standard courts should use when construing a patent for validity because the extent to which the public is chilled by a patent is, until its claims are construed by a court, generally the broadest reasonable

²⁷ *Markman v. Westview Instruments, Inc.*, 53 F.3d 967 (Fed. Cir. 1995), *aff'd*, 517 U.S. 370 (1996).

construction of the claims possible. Thus, when a patent's validity is challenged, that is the same breadth against which it should be made to withstand.

In addition, the legal standard for indefiniteness applied by the courts and to Patent Office review permits unreasonably vague claim language to be used. The current standard for impermissible indefiniteness under Section 112 of the Patent Act requires the claim to be “insolubly ambiguous” before it can be found invalid for failing to particularly describe the invention. This extremely lenient – almost impossible to violate – standard prevents the Patent Office and the public from readily determining a patent's scope. As such, to address the problem caused by fuzzy patent boundaries, the rule barring indefinite claim language should be strengthened – perhaps by invalidating any claim with terms found to be ambiguous or reasonably capable of more than one interpretation – and more routinely enforced.

Further, the Patent Office rarely places on record its broadest reasonable construction of the patent claim or requires patent applicants to clarify the terms of their patent claims. Either of these steps would give the public a better – more reliable and more clear – understanding of the scope of the patent. Because the Patent Office is already required to consider and apply the “broadest reasonable construction” standard to evaluating patent validity, it should impose no additional burden on it to require examiners to document that interpretation in any Office Action, including Notices of Allowance, that they issue. To the extent an applicant wishes to further illuminate the meaning of her claim terms, she should be free to do so.

OTHER ISSUES THAT SHOULD BE THE FOCUS OF PATENT REFORM

In addition to patent quality, there are other aspects of the patent system that are in need of reform as well. First, inventions should be made available to the public as quickly as possible, regardless of whether the patentee does so herself or not. Second, although they serve a critical public policy goal, patents should not be allowed to restrict the exercise of Constitutional rights or the performance of technological research. Third, the statutory limitations on what things may be patented, which have been eviscerated by the Federal Circuit, should be revived. Lastly, the doctrine of willful infringement no longer serves any beneficial purpose and, as such, should be abolished.

Make Inventions Available to the Public as Quickly as Possible

The patent system's ultimate purpose is to advance technology, not line the pockets of patent holders. Although these ends are typically aligned, there does come a point at which over rewarding patent holders can in fact retard technological development. This is why the patent right is limited, such as by a finite term. Similarly, if a patent holder is not itself making its

invention available to the public, courts should take great pause before issuing an injunction against another party that desires to do so.

Opponents of the proposition that inventions should be brought to the public as quickly as possible argue that there is a more important need to create greater incentives for invention. But encouraging invention is not an end to be achieved at the sacrifice of more important goal of the patent system, which is bringing to the public technological advances as quickly as possible. Further, as Thomas Jefferson correctly stated, patents are “not [a] natural right, but [are] for the benefit of society.”²⁸ Our patent system is an economic tool to coordinate technological development that is designed to ensure inventive effort is *adequately* rewarded and quickly adopted to benefit the American people. Thus, when a patentee does not deliver her invention to the public, she should not be allowed to stand in the way of others willing to do so if they can compensate her fairly for the advance she identified. Allowing her to deny the American people a significant advance incorrectly places her private right above the needs of the public.

For example, a patent holder with a valid patent on the cure for AIDS who does not make that technology available to the public should not be allowed to prevent others from doing so. While it is true that there are a small number of cases where a permanent injunction was not issued because of public health concerns, such as would likely be involved with the hypothetical, we should not wait and rely on courts to do the right thing in the most dire cases. The public concern triggered by not having such issues resolved before they arise was highlighted during the Anthrax attacks with respect to the patent on Cipro, where it was uncertain whether the patent owner would have been able to successfully prevent the American people from defending themselves with the best technology available.²⁹ More recently, concerns over the production of the cure for Avian Flu have also been raised do to the patent holder's monopoly on that product.

Further, the principle of not withholding technological advances from the public applies to all technologies, even if the immediate impact of denying the public access to the advance is not as significant as with public health technologies. For example, but a few years ago, this House was concerned with a patent that could be used to enjoin an electronic communications device of importance to Representatives.³⁰ That was indeed a legitimate concern and it highlights the necessity that technological advances not be kept from the American people because of patents. Anytime a technological advance is kept from the American people, the public suffers unnecessary and unjustified harm.

²⁸ Thomas Jefferson, Letter to Isaac McPherson, August 13, 1813 (“... the exclusive right to invention as given not of natural right, but for the benefit of society.”)

²⁹ Shankar Vedantam & Terence Chea, *Drug Firm Plays Defense in Anthrax Scare*, Washington Post, October 20, 2001, A04.

³⁰ Jonathan Krim, *House Makes a Plea To Keep BlackBerrys*, Washington Post, January 17, 2003, E01.

So long as patentees are guaranteed adequate compensation by the courts, the only complaint they can be heard to make regarding a rule that they not be allowed to deny the American people access to technological advances is that they would not be able to use injunctions to get more than they deserve from the marketplace. But, allowing patentees to get more financial reward than they deserve would result in a corresponding economic harm to the American public and, as such, is not sound public policy.

Protect Civil Liberties and Research

Patent law should not trump Constitutional rights nor be used to impede its own goal of advancing technology. Unlike copyright and trademark law, under current patent law there is no exemption from infringement liability for exercising Constitutional rights. Although perhaps previously not as relevant to the exercise of individual freedoms as those other forms of intellectual property, patent law today impacts many, if not most, of our most sacred rights, including speech, privacy, religious expression, assembly, and voting.³¹ This is partly because patent eligibility has been expanded by the Federal Circuit to include anything and partly because everyday life is becoming increasingly dependent upon technology. As such, there should be a statutory exemption from patent infringement for the exercise of Constitutional rights.

Further, since the mission of the patent system is to advance technology, it seems perverse to subject scientific research to the risk of infringement liability. Historically, scientific research was, in fact, excepted from patent infringement liability. Unfortunately, however, the Federal Circuit has interpreted the experimental use exception so narrowly – effectively excluding any and all research of a technological or scientific nature – that legislative action is now required to restore the proper balance between the private rights of patent holders and the public interest in advancing technology. As such, there should also be an exemption from patent infringement for scientific research.

Revive Limits on Patentable Subject Matter

Since its creation, the Federal Circuit has continually expanded the category of subject matter eligible for patenting. The CAFC's decisions interpreting Section 101 of the Patent Act, which sets forth the scope of patentable inventions, have gone well past what the statute allows. As the Supreme Court has recognized, Section 101 implements a substantive standard to ensure that skilled patent draftsmanship is not capable of overcoming one of the core principles of patent law that “[a] principle, in the abstract, is a fundamental truth; an original cause; a motive; these

31 John R. Thomas, *Liberty and Property in the Patent Law*, 39 Hous. L. Rev. 569 (2002).

cannot be patented, as no one can claim in either of them an exclusive right.”³²

That fundamental limitation on the scope of what can be patented is needed to protect the public domain of science and nature from being appropriated through private property rights. To assure that the limitation is respected, the Supreme Court issued decisions in the early 1980s establishing the rule that patentable subject matter requires significant physical application of any newly discovered scientific phenomena or mathematical principle. Because it was not enough to simply come up with a trivial or ephemeral application, software, either by itself or reduced to a storage medium, and business methods were generally understood to be unpatentable.

Through a series of decisions, the CAFC has abandoned the substantive based standard for determining patentable subject matter and replaced it with a more expansive formalistic approach that looks only to see whether a patent claim contains some structure or has some minimal practical utility. The Federal Circuit's form-over-substance approach has come to include virtually anything within patentable subject matter. This has resulted in an encroachment of patents into fields where they should have never been allowed.

Software, for example, which is nothing more than a set of instructions – an algorithm – to be performed by a computer in order to solve some mathematical problem, is subject matter that should not be patentable. Economists have studied the impact of extending patents to software and found that such has not increased investments into research and development, while it has, of course, contributed to the significant increase in patent litigation.³³

Business methods are another field where expansive CAFC policy has introduced patents to the detriment of the commercial actors within those industries. As such, it would be wise policy to revive the limits on patentable subject matter intended by Section 101 through an amendment to that statute specifically requiring a substantive standard for patent eligibility and expressly precluding both software and business methods from patentable subject matter.

Eliminate Willful Infringement

The willfulness infringement doctrine, which allows for the trebling of damages upon a finding

32 *Le Roy v. Tatham*, 55 U.S. (14 How.) 156, 175 (1853); *Gottschalk v. Benson*, 409 U.S. 63, 67 (“[p]henomena of nature, though just discovered, mental processes, and abstract intellectual concepts are not patentable, as they are the basic tools of scientific and technological work”).

33 Bessen, James E. and Hunt, Robert M., *An Empirical Look at Software Patents*, (March 2004). FRB of Philadelphia Working Paper No. 03-17. Available at SSRN: <http://ssrn.com/abstract=461701> or DOI: 10.2139/ssrn.461701.

that an infringer failed to comply with a duty of due care to avoid infringement, has no beneficial impact on conduct. This is largely due to the fuzziness of patent boundaries, which makes it virtually impossible to know what a patent does and does not cover, and the ready availability of patent attorneys to provide opinion letters to be used as a defense to the charge of willfulness. Making the doctrine even less supportable is the fact that the duty of care requirement has no basis in the patent damages statute or the legislative history. There is also a significant Constitutional issue regarding whether the due care requirement is consistent with Supreme Court precedent that states punitive damages can only be awarded in situations where the conduct is reprehensible.³⁴

The only benefit provided by the willfulness infringement rule today is to patent holder's counsel in litigation, who can use it to intrude into the defendant's attorney-client relationship, because disclosure of the attorney opinion letter by the defendant as a defense to the charge for willfulness waives all right to protect privileged communications between that client and attorney. The doctrine also encourages patentees to target smaller firms, to whom the cost of obtaining a patent attorney opinion letter – not atypically in the range of \$20,000 to \$40,000 – is burdensome. As such, since the doctrine has no redeeming value except as an abusive tool of patent holders, it should be abolished in its entirety.

CONCLUSION

Thank you, Chairman Berman, Ranking Member Coble, and Members of the Subcommittee, once again for inviting me to make these remarks about our current patent system and the need for patent reform. I look forward to continuing to assist your efforts to ensure the patent system achieves its Constitutional purpose of advancing technology.

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³⁴ *Knorr-Bremse Systeme Fuer Nutzfahrzeuge GMBH v. Dana Corp.*, 383 F.3d 1337, 1348 (Dyk, J., concurring-in-part and dissenting-in-part) (Fed. Cir. 2004).