

**Written Testimony of
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**Subcommittee on Courts,
Intellectual Property and the Internet
Committee on the Judiciary
U.S. House of Representatives**

Abusive Patent Litigation: The Impact on American Innovation & Jobs, and Potential Solutions.

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Introduction

Mr. Chairman, Ranking Member Watt and members of the Subcommittee, thank you for convening this hearing and for drawing attention to the importance of patents to our nation's current and future economic welfare.

My name is Dana Rao, and I appear before you on behalf of Adobe and BSA | The Software Alliance. I serve as Vice President and Associate General Counsel of Intellectual Property and Litigation at Adobe Systems, overseeing all aspects of Adobe's intellectual property and litigation matters, including procuring, licensing, and defending Adobe's patents, trademarks, and copyrights, and managing all aspects of Adobe's litigation practice. I am an engineer by training and practice. During my career I have written, prosecuted, litigated, and licensed patents for start-ups, semiconductor companies, medical device companies, and software companies. I am honored to be here to discuss this important topic.

Background on Adobe

Adobe just celebrated its 30th anniversary. Our story exemplifies American ingenuity and innovation. In 1982, two computer scientists, John Warnock and Charles Geschke, saw a pressing need: printers could not deliver an accurate reproduction of the images displayed on a computer screen. They set to work to solve that problem and their

PostScript software solution transformed the impact of computers, allowing them to be used for reproducing documents and images in the physical world, rather than being confined to the mere manipulation of data on a screen. But they didn't stop there. Next, they partnered with a promising engineer named Thomas Knoll, who, along with his brother, had an idea for how to enhance and edit digital images. That idea became Adobe Photoshop, which has changed the world of professional and consumer digital imaging.

For 30 years, Adobe has pushed the boundaries of computing, publishing and printing, adding other products like Adobe Acrobat and Flash. More recently, Adobe has entered into Digital Marketing, providing retailers and e-tailers the ability to customize and optimize the content on their website for the consumers who visit them. Charles Geschke and John Warnock created not only an iconic company 30 years ago, but also a culture of innovation and entrepreneurship that lasts to this day.

From its beginning -- two scientists with a good idea -- Adobe today generates \$4.4 billion in annual revenues and employs more than 11,000 people, the majority of whom are in United States. And we continue to invest in innovation. Last year Adobe invested 17 percent of its revenue in research and development, about \$740 million dollars.

It should come as no surprise, given our company's leadership and innovation, that Adobe believes in the patent system. We focus on filing quality patents, and have more than 3,000 pending and issued US Patents covering innovations across all of the products in our portfolio. We strongly believe that the patent system gives us the freedom to invest in R&D, knowing that our key differentiating innovations can be protected and that the patent system will be there to help us earn a return on that investment.

U.S. Patent System in Perspective

BSA and its members believe that the United States has the best patent system in the world. At the same time, our system, like any system, can be improved through targeted reforms and practices.

We also believe that a patent system that functions properly is a system that works for both larger companies like Adobe and small start-ups popping-up every day throughout America.

The focus of this hearing is on ways our patent system can be enhanced to ensure patents perform their intended role of promoting innovation and are not used opportunistically or in ways that disrupt the marketplace for both small and large businesses. We believe this is a very important issue and a multi-faceted one.

The Issue is Not Software or Software Patents

Software is so ubiquitous that it is easy to forget the important role software plays in our everyday lives. Software runs our computers, printers, smartphones and tablets. But that is just a small part of the story. The elevators in this building run on software. Our cars save fuel because of software. Satellites that aid in communication, gather data, or provide a source of entertainment for millions run on software. Our power grid is maintained through software. And, manufacturing companies rely on software to make paper towels absorbent and strong, airplanes airworthy, anti-lock brakes safer, and detergent bottles light and resilient.

There has been a lot of talk about disruptive litigation and the role of software patents in this trend. Given the ubiquitous nature of software, it is hardly surprising that patents on innovations implemented in software are being selected by opportunistic litigants as the tool of choice to accuse a vast number of deep-pocket defendants. If you have a strong patent on a popular software feature, there is an excellent chance that a lot of companies may be using that feature. This has led some to argue that software itself is the problem, and that it is somehow unworthy of patent protection. Nothing could be further from the truth. Patents are not issued on software per se; they are issued for processes and apparatuses, which must be novel, useful and non-obvious, in order to receive patent protection. These criteria apply to all inventions, including those that have software elements.

Let there be no doubt. Software is innovative, and software innovations should be patentable. For example, Adobe has filed for many patents on its highly complex Photoshop product. These include patents that apply to technology such as the “healing brush” to make clearer a blurred portion of an image, or to the Adobe Analytics product, covering how to properly characterize a web visitor’s interaction with goods sold on a website into a manner that is searchable and usable later, allowing customers to determine the right content and offers for the next visit.

At the same time, patents are not -- and should not be -- granted for abstract ideas or mere lines of code. But they are available to protect the advances developed by this country’s highly skilled software engineers. I am sure the Photoshop engineers would be surprised to find that people considered the work they do on optics and imaging, even though it is in the digital realm, to be less worthy of patenting than the invention of a new toothbrush or an idea for a new plow.

So I recommend two thoughts we should all keep in mind: patents are granted to novel inventions that implement software, and software is ubiquitous and critical to our economy.

Current Efforts to Improve the U.S. System

Today, our nation’s patent system works well. And through the hard work of this Committee, the America Invents Act is making it better. In addition, over the course of the past eight years, this Committee’s thoughtful deliberations have had a profound impact on the courts, with a steady stream of cases correcting past imbalances in patent law, including on critically important issues such as damages, injunctions, venue, and the scope of patentability. These changes, along with the AIA, have vastly improved the landscape of patent law from where it was just a few years ago. However, even in that time, new challenges have emerged, and we must consider new solutions to address them.

To ensure that our patent system encourages innovation, not litigation, Congress, the courts, USPTO and industry all have a role to play. Courts today continue to work through critically important issues on scope of patentability. For example, in *CLS Bank*

Int'l v. Alice Corp. the US Court of Appeals for the Federal Circuit will consider the standard for patentability of software-related inventions. BSA submitted an *amicus* brief arguing that the court should take a balanced approach, taking into account all relevant considerations when determining patentability. Software is no different from the many transformative technologies that have come before it -- sewing machines, semiconductors, airplanes and telephones, to name but a few -- and they were all found to be deserving of patent protection. The software industry is now a critical sector of our economy, contributing more than \$400 billion to our nation's gross domestic product, employing more than 2,000,000 US workers, and paying salaries that are roughly 200 percent of the national average. This vital industry needs intellectual property protection to continue its development, and ensure American leadership in this area for years to come.

The USPTO is also working hard to improve our patent system. Implementation of the AIA has been a key driving force for well-considered improvements, and USPTO's leaders have proven to be a dedicated force of positive change, working hard to improve internal processes and to build productive partnerships with innovators and other stakeholders.

Following enactment of the AIA, submission of prior art by third parties has been an area of USPTO focus. One of the key criticisms of software patents is that it is hard to assess patentability because examiners do not have access to prior art for computer-related inventions. For example, recently we encountered a patent that was being asserted against Adobe, and discovered that we ourselves had prior art from Photoshop 2.0 which shipped in 1991. The USPTO, obviously, did not have access to the Photoshop 2.0 manual or the product, and therefore did not know that this particular software patent was practicing a known technique. It is difficult for the USPTO, especially in the early years of a technology's development, to keep pace with the publically available non-patent prior art. The AIA's provisions enabling third parties to submit prior art information to an examiner appears to be helping. In November 2012, USPTO Director Kappos reported that in the first two months in which third parties could submit prior art to the USPTO, the agency received more than 150 submissions covering a wide range of technologies, including software.

There is still caution in the business community about submitting prior art to the PTO in this process. As you know, a presumption of validity attaches to an issued patent. This allows courts, properly, to give deference to the USPTO examination process. We all understand the burdens examiners are under in keeping up with the volume of patents and prior art references, and companies are concerned that if the examiner fails to appreciate the prior art they submit, the later-issued patent will be presumed valid over this art.

The AIA also established mechanisms for challenging recently granted patents through procedures at the USPTO. These mechanisms enable the USPTO to filter out dubious patents that create unjustified risks in the marketplace without having to resort to the courts. And because the AIA requires the USPTO to render decisions in very short time periods, the delays associated with Federal court litigation do not exist. BSA strongly supported the establishment of post-grant procedures for challenging patents. At this early stage in their implementation, the impact of post-grant procedures on improving patent quality remains unclear. The fact the AIA estops parties from raising defenses in later litigation if they “could have reasonably raised” those issues in the post-grant proceedings creates risk and makes it less likely parties will use the post-grant procedures. The potential cost of these procedures could still make them an unattractive option for small companies to defend themselves against patents. We strongly encourage the USPTO to administer the post grant and inter partes re-exam processes in a way that minimizes the costs of participating and makes the procedures a viable and attractive alternative to litigation. Minimizing discovery required and focusing on ensuring that these important administrative procedures do not duplicate burdensome requirements of judicial proceedings will certainly help. Properly administered, the post-grant process has the promise to provide a meaningful method for reducing the marketplace risks associated with improperly issued patents.

Addressing Patent Litigation Abuse

But we need to look beyond these efforts. Today, the increasing trend of abusive litigation is a challenge for our industry. Companies like Adobe are overwhelmed by demand letters and suits by entities that neither practice the claimed inventions they

own nor have any intention of doing so, but instead focus on making a quick profit by aggressively asserting a questionable patent. These patent assertion entities (PAEs) are also shifting their focus from large companies to small companies, start-ups, retailers and e-tailers, who are now forced to confront this form of patent abuse as they never have before.

Suits by PAEs take advantage of lopsidedness in our litigation system. The PAE is able to acquire a patent for little up-front investment. PAEs know their investment and the target's defense costs are asymmetrical. PAEs typically have very little in discovery costs but at the same time they have the ability to make defendants like Adobe spend a lot of resources responding to very broad discovery requests. In other words, the cost to defend against a PAE suit far exceeds the PAE's cost to prosecute the patent. By stretching the interpretation of the claims of the patent beyond the intended invention, an aggressive PAE is able to target a large number of potential defendants and increase its potential windfall. Often, PAEs do not want their often weak or questionable patents to be scrutinized. Indeed, studies show that PAE patents taken to trial fail more than eighty percent of the time. Instead, their goal is to have defendants pay settlement fees, as large and as fast as possible. By suing 100 defendants for \$50,000, they can make a quick \$5 million without ever testing the merit of the patent. And these quick profits are used to buy additional patents, which are then similarly monetized. As this cycle of threats escalates and expands, no businesses are furthered, no jobs are created, and progress of science or the useful arts is not promoted.

Patent assertion lawsuits impose substantial costs on both innovators and our customers, and the problem is growing. Adobe's experience illustrates this point. Through the first 26 years of its history, Adobe faced 19 patent lawsuits. Since 2009, 30 patent infringement suits have been filed against us. Before 2009, we had received eight demand letters alleging patent infringement. In 2012 alone, we received 33 such letters.

Increasingly, these suits are directed at our customers, who in turn look to us to indemnify them of liability for using our products. Since 2009, Adobe has received more than 100 such indemnification requests. In one recent example, hundreds of retailers were sued by a particular PAE. Each of these retailers faced the choice of

settling for relatively low amounts, less than \$100,000, or ending up in expensive protracted litigation costing as much as \$5 million per suit. In this particular set of suits, Adobe stepped in and indemnified the defendants who were our customers. This was the right thing to do. But it constitutes yet another litigation expense for Adobe, and we are now defending against these lawsuits in six different courts across the country.

In addition, abusive PAE lawsuits cause us to divert the time and energies of our engineers away from working on great new products to sitting through hours and hours responding to discovery requests, depositions, and court proceedings. We need our engineers to innovate -- not talk to lawyers. We need the money we are spending on defending ourselves and our customers in meritless litigation to be spent on hiring engineers and creating amazing new products for our customers. And we need your help to change this landscape.

Beyond the measures I outlined above, there are several ways Congress, the courts, and the USPTO can improve the system. PAEs are ingenious and adaptable. Today their suits target our customers as well as companies like Adobe, while just a few years ago they targeted only developers of technology. We believe that each of these suggestions, if implemented, would make a difference.

Improving Patent Quality

First, we think that the USPTO should continue to focus on ways to improve the quality of the patents it issues. PAEs find their ammunition in questionable patents. The more clarity we can require in patents, the better we will all be served. Patents should be granted for innovations clearly stated.

The USPTO has proposed, in its laudable Software Partnership initiative, some ways to improve the assessment of whether an application meets the requirements of Section 112 of the Patent Act to fully describe how a claimed inventions works.

We support the PTO in this effort. Adobe would be happy to work with the USPTO toward the development of procedures to better identify the support in the specification

for each claim element. Adobe would go further and would ask that the examiner acknowledge that they have reviewed our assertions and agreed with them by initialing each claim chart or by acknowledging this in some other manner. This is not a change in the law, but simply more careful and rigorous enforcement of all of Section 112. In addition, PTO should be very skeptical of applicants broadening claims at any point in the examination process and really require applicants to show literal support in the specification for these amendments. Requiring clarity in patents will help, down the road, in increasing the difficulty of finding the ambiguously drafted patents that fuel the PAE business model.

In addition to giving examiners better guidance, we think the USPTO should allow examiners more time to decide on the merits of applications of software-implemented inventions. We understand that owing to the volume of patent filings, it is sometimes difficult to spend adequate time on the examination process. We believe that the patent community would be better served if the examiners could dedicate more time up front to the initial examination, looking at 112 issues in addition to Sections 102 and 103 questions. It takes Adobe about forty hours to write a patent application. My understanding is that the average amount of time devoted to examination of the patent is a fraction of that.

One of the main functions of patents is to inform the public of both the technologies that are subject to patent protection and who owns those technologies. Disclosure of the real party in interest for a particular patent would reduce the likelihood of opportunistic behavior and gamesmanship and help to facilitate licensing. We believe it would be a significant step forward if patent owners voluntarily disclosed the patents they hold, and in the absence of such voluntary steps, if the USPTO would pursue ways to achieve this goal within the scope of its current authority.

Finally, continued focus on improving examiner access to prior art would be beneficial. The crowd sourcing and public prior art programs the USPTO has instituted are useful steps to help address this problem.

In offering these recommendations for process improvements, we do not believe there should be any special treatment of software. The examination challenges we face in software are not unique to software. Other complex areas, such as biotechnologies, pose similar challenges to examiners. These changes will help all industries.

Legislative Reform

We also believe that Congress can make some important changes that will help curb abusive litigation practices.

To address the asymmetry in PAE litigation, we believe Congress should enact rules providing judges the ability to impose fees on opportunistic parties to litigation. Under today's law, Section 285 of the Patent Act empowers judges to make a plaintiff pay litigation costs in exceptional circumstances. But as interpreted today, this is a very high standard, rarely met. A defendant must prove both that the plaintiff could not have reasonably expected to win and that the plaintiff knew or should have known about that lack of foundation. That is not likely to happen, and the PAEs know it. If we can appropriately tailor this standard to address the abuses in the system, we could rebalance the asymmetry and curb opportunistic suits.

Last week Reps. DeFazio and Chaffetz introduced the "Saving High-tech Innovators from Egregious Legal Disputes" (SHIELD Act). The bill recognizes that the best way to curb frivolous litigation is to create a system where PAEs face consequences if their suits truly lack merit. Given that it costs \$5 million to defend a patent through trial, and the average settlement demand is less than \$1 million the PAEs have an economic advantage over the targeted defendants. If, however, the PAEs faced the real possibility that the \$5 million would be shifted to them if they were unsuccessful, I believe they will think twice about bringing lawsuits based on meritless patents. And it would just take one defendant of the hundreds of targets to challenge them to take the profit out of the aggressive litigation model. It is important to note that the bill includes important safeguards that allow individual inventors to continue to assert their rights as they do today. The real problem is repeat, serial, patent aggregators who are adding only cost, not innovation, to our economy. The DeFazio/Chaffetz bill would help change the calculus of how these litigations are brought and help address the PAE litigation

problem in a meaningful way.

Strengthening Rule 11 of the Federal Rules of Civil Procedure would also help. Rule 11 imposes an affirmative duty on plaintiffs not to file a suit aimed at harassing or imposing undue costs on a defendant. The Rule empowers judges to impose substantial sanctions if the Rule is violated. We believe a plaintiff that is seeking \$100 million in damages, but is willing to settle for \$50,000, is probably not filing a well-founded complaint. More than likely he is using the litigation system as an ATM machine. Thus, we urge this Committee to look at whether the standard for applying Rule 11 is too high and what steps can be taken to ensure it is applied as intended in instances of opportunistic patent suits. We applaud the Federal Circuit for its recent decision in *Raylon v. Complus Data* where it set forth some guidance on when a Rule 11 violation has occurred in the filing of a frivolous patent lawsuit. In addition, more guidance should be provided to judges to ensure that, when a violation is found, fees are in fact shifted and those fees are reflective of the full costs incurred by the defendant.

Conclusion

Mr. Chairman, Ranking Member Watt, and members of the Subcommittee, I thank you again for giving me the opportunity to testify before you today on ways to make our patent system work even better. I look forward to responding to your questions.