

The Great Patent Debate: Changing Horizons

March 13, 2015

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Introduction

I'll be honest. Some of what I am going to say today could cause discomfort in the Washington, D.C. policy community, but not because of the partisan divide, or on account of picking sides between conservatives and liberals.

Ladies and gentleman, the awkwardness is because I am going to speak about facts and data—and here in Washington D.C., facts and data are simply not the subject of polite conversation. Facts and data complicate the Washington narrative. In D.C., people have a set of a priori arguments they wish to make and they mold information to fit the arguments. Facts and data deflate rhetoric and emotion; they contradict carefully selected anecdotes; and, worst of all, facts and data can give us pause—force us to consider that the actions we are advocating as “decisive” and “bold” may actually be something else: reckless and destructive.

This morning I am going to demonstrate that we now have a lot of facts and data showing that our intellectual property system is rapidly returning to health. In fact, I submit to you that there is no patent troll driven crisis facing our nation that needs to be corrected with sweeping new legislation. Of course, the system can be further streamlined to reduce needless litigation, but no major overhaul is needed. An IP recovery in America has been driven by a steady course of treatment whose prescription was written out in 2011 with the passage of the America Invents Act.

Unfortunately, the prevailing D.C. narrative is that—unceasingly—patent troll games playing with our nation's IP system has result in a rapid decline of the patent system's health, and a litigation crisis in America. Some are working hard for that narrative to prevail in new legislation. However, I am here to offer a data-driven second opinion.

In addition to addressing the current direction of legislative reform, I will also share data bearing on the current debate surrounding the role of antitrust in IP—data that raises serious questions about the advisability of competition regulators and standards bodies taking aim at the IP system.

So, for a moment, let's pretend we're not in Washington, D.C. Let's

suspend our reliance on invective and instead give serious consideration to facts and data. My highest hope is that, going forward, we can bring these facts to bear on a debate that, while initially rooted in legitimate concerns, has along the way ceded ground to rhetoric—a rhetoric that has about as much to do with sustaining innovation as Chicken Little’s famously dire prognostications had to do with holding up the sky. And I hope we do so not for the purpose of opposing reform, but for the purpose of ensuring the reform we undertake is the smart reform that's needed, and no more.

Part I. Legislative Reform

As anyone familiar with my tenure at the USPTO, or my work before or after, can attest, I can hardly be categorized as someone who is “anti-reform.” The American patent system is the greatest innovation engine the world has known and I have long contended that, like any piece of intricate machinery, it is in need of perpetual upkeep and habitual calibration. As industries and technologies change, so must the system change that incentivizes and sustains value in innovation. The flexibility of the patent system, and our ability to periodically adjust it to changing conditions, facilitates the optimization—not minimization or maximization—of IP.

Yet we must guard against a tendency toward myopia that historically has driven—and presently is driving—calls for drastic reform. Outsized anxiety over patent litigation is nothing new. The recent “smartphone wars” are no more the harbinger of an inevitable innovation decline than were fights over sewing machines in the mid-1800s, the telegraph in the late 1800s, or airplanes in the early 1900s. Some reasonable level of disputes is inherent in an IP system whose success depends on flexibility, and every generation has experienced this tension.

The key to successful maintenance of the patent system is recognizing that it is a system of long time constants. The impact of present changes will only be realized many years down the line. Addressing today’s issues—which are real but not dire—through a massive overhaul of the system is like addressing a hangnail with an amputation: the immediate problem will be obviated, but a slew of graver, irreversible problems will arise in the solution’s wake.

Ironically, while the major reform movement threatens to undermine a

patent system that has long been the envy of the world, a simultaneous movement toward increased dependence on IP protection globally threatens America's status as the foremost innovation economy. In the life sciences, for example, a recent study published in the Journal of the American Medical Association revealed a significant drop in the percentage of patents considered most valuable in the field held by the U.S.—from 73% in 1981 to 59% in 2011. The National Institutes of Health recently expressed serious concerns with this data, lamenting that China is now filing more patents in biomedicine than the U.S.—and not just as a portion of GDP, but in absolute numbers. Competition from overseas makes the consequences of bad reform that much worse. And our overseas competitors are looking on right now, not knowing whether to laugh or cry. Those seeking to copy American innovation are laughing at the prospect of the US significantly weakening its patent system and giving a leg up to our competitors. Those seeking to have their countries strengthen their IP systems so that they too can enjoy the fruits of innovation are crying because the gold standard is being undermined.

I attend meetings all over the world and everywhere I go, the question is asked, “why is America unilaterally weakening its patent and IP system, a key global competitive advantage to your country?” And I don't have a logical fact-based answer to the question, other than to say, those of us who care about the system are working to mitigate against overly broad changes that harm American innovation and job creation. I am also increasingly optimistic that we can moderate any legislation in the Senate so that it does no harm to the most innovative U.S. companies and universities. As an example, the new STRONG Patent Act has good ideas I hope will be picked up in the Senate.

Before outlining the specific drawbacks of recent proposed “solutions” to what advocates bombastically refer to as a “broken” system, let's examine the key facts and data. First and foremost, the data that the sky-is-falling alarmists are finding the hardest to swallow: an irrefutable decline in patent litigation. In 2013, reformers decried the unprecedented levels of patent litigation and built a reform narrative around “out-of-control” patent litigation, promising it would only soar to new heights unless reform was initiated, and *now*.

Well, so much for that rallying cry: every credible study of 2014 patent litigation trends has reported that, from 2013 to 2014, there was a roughly

18% decline in the total number of patent suits nationwide. Recognizing the incongruity of this trend with the 2013 narrative, the storytellers have moved the goalposts. The new focus has shifted from recent trends to a selective look-back against 2010 levels. The sleight-of-hand lies in the apples-to-oranges comparison, as the increase in the number of patent suits since then has nothing to do with an increase in actual disputes, but rather with procedural changes altering the rules for joinder brought into effect by the AIA.

The fiction of an astronomical increase in patent litigation is undermined by the facts: adjusting for procedural changes of the AIA, patent litigation at the end of 2014 was actually commensurate with 2009-2010 levels. And in a recent comprehensive study of 2014 trends, it was revealed that the number of litigants in new district court patent cases declined over 23% from 2013 to 2014, down to 16,089—the lowest level since 2009.

When pressed for an answer to how these facts impact the debate, advocates downplay the decline—characterizing it as “small” or “insignificant.” It is ironic, if unsurprising, that advocates who relied on a fever pitch of commentary over patent litigation increases have been so muted in addressing the decrease. If these same folks downplaying the trend saw a nearly one-quarter decline their retirement investment portfolios or annual salaries, you can’t help but think they’d be using words other than “small” and “insignificant” to describe the impact.

At the same time we have witnessed a pronounced decrease in patent litigation, we have seen a profound increase in new USPTO proceedings brought into effect by the AIA. As of February 2015, there have been 2,872 requests for such proceedings—roughly three times what was anticipated at the time the AIA was enacted. To put this in context, there have been 2,553 requests for inter partes review since September 2012, compared to 1,841 requests for the analogous proceeding over the course of the entire *13 year* period preceding the AIA.

The big concern over post-grant proceedings during negotiation of the AIA was that they would merely rubber stamp PTO examination actions. As it turns out, these proceedings have been anything but a rubber stamp. Data show that 86% of IPR requests are instituted by the PTO, and 77.5% of those initiated have found at least one claim unpatentable. If anything, the pendulum may now have shifted in the other direction—with complaints that

invalidation rates are **too** high. But in the three appeals of PTAB decisions heard so far, the Federal Circuit has completely backed the Board's findings. Thus, the evidence suggests PTAB is making the right decisions, and there is every reason to believe it will continue critically reviewing the cases before it.

This speedier and less costly alternative to litigation is proving to be an immensely popular and impactful tool for correcting the problem of unmerited patents. Importantly, these proceedings are not merely happening in addition to ongoing court cases, but appear to be supplanting them. 80% of IPR proceedings have been conducted with parallel litigation pending in district court, with 76% of those cases producing a motion to stay, with a grant rate of 82% of those motions. Moreover, rarely mentioned is that 41% of instituted post-grant proceedings in the PTO (or roughly 17% of all petitions) have resulted in settlement between the parties, which saves both PTO and district court judicial resources, effectively subtracting these cases from the court filings. And a further 5% result in requests for adverse judgment, also effectively subtracting these cases from the court filings and setting them up for efficient appeal to the CAFC. The substantial rate of settlement and request for adverse judgment at the PTO proceeding level—not to mention the immeasurable settlements entered into to avoid the filing of a petition in the first place—contribute to an additional reduction in district court litigation, which as previously discussed is already at its lowest level in at least five years.

All this data taken together screams that the AIA is working, and that whatever further tinkering is needed, it should take a light touch.

While rising patent litigation rates were until recently the cornerstone of the major reform movement—and the most loudly trumpeted indicator of a “broken” system—there exist other perceived problems undergirding the calls for further major rewriting of our patent laws. Once again, however, the facts and data prove inconvenient for proponents of drastic legislative reform.

Fee Shifting

Take for example the push for shifting attorney fee awards—the move toward a “loser pays” system of patent litigation. Not only is it unclear which parties would stand to gain the most from such a system, but, again, events over the course of the last year have significantly undermined calls

for congressional action. Federal courts have always had the discretion to award attorney fees to the prevailing party in exceptional cases, although historically they rarely used that discretion. Last term's Supreme Court decisions in *Octane Fitness v. Icon* and *Highmark v. Allcare* have required that courts grant such awards more readily and that these awards be afforded greater deference on appeal. The practical effects of these two decisions remain to be seen, and comprehensive studies have yet to be performed. But at least one early study examining samples of awards pre-*Octane* vs. post-*Octane* has revealed a clear increase in the rate at which awards are granted, from a pre-*Octane* rate of 32% for 2011-2013 cases to a rate of 45% for cases since *Octane*. Turning now to raw data on denied motions for attorney fees under Section 285, U.S. district courts have ruled on 924 such motions since 2008. The denial rate hovered around 60% until 2013, when it increased to 67%. But it appears *Octane Fitness* and *Highmark* may be reversing the trend. Last year only 57.6% motions were denied, and the denial rate in 2015 to date is only 48%.

Those concerned about fee-shifting legislation beyond what the Supreme Court has already mandated judicially point to inherent problems, such as the difficulty in identifying a "prevailing party" in the common situation where a litigant prevails on some issues but not others, and the difficulty in legislating a "reasonable fee." When these inherent difficulties are viewed in the context of a judiciary with newly enhanced discretion to award such fees, and with the advantage of case-by-case analysis, one can't help but ask: exactly what work would legislatively mandated fee-shifting perform?

Covered Customer Stay

Another area where major reform is being urged is for covered customer stays. Facially, the notion that "mere users" of potentially infringing technologies should be dismissed from litigation predominantly targeting parties higher up in the supply chain seems perfectly reasonable. But there are two problems with the legislative approach. First, many technologies are highly customizable—meaning that the rigidity of a statutory fix is unlikely to adequately distinguish between infringement that is inherent in the technology (in which case a stay is appropriate) versus infringement caused by aftermarket modification (in which case the user is not properly dismissed from the action). Second, federal courts already have the authority to stay litigation against peripheral defendants. And once again the facts become problematic for the major reform narrative, as data show that courts are readily using that authority.

In 2014's *In re Nintendo*, the Federal Circuit severed claims against a retailer from claims against the manufacturer, staying the retailer claims.

Since that case, there have been three motions to stay in cases having facts similar to *In re Nintendo* and, in all three, the motion to stay has been granted. Looking at district court cases over the last fifteen years, I can point to 30 motions with a similar fact scenario—over two-thirds of which have been granted. As is the case with attorney fee awards, courts are in the best position to make decisions on stays based on the facts of a particular case. Were courts demonstrating an unwillingness to make that call, perhaps a congressional nudge would be warranted—but this has not historically been the case and, as demonstrated by *In re Nintendo* and its progeny, is unlikely to become so. Hence, while hypotheticals of customers hailed into court for unwittingly using an infringing device purchased from a retailer may provide an effective lobbying tactic, the facts demonstrate no necessity for congressional action in this area.

Section 101

Now, lest I be accused of holding a love-in for the judiciary's effectiveness in correcting issues of patent jurisprudence, I'll turn now to an area in which the courts seem to have lost their way. I am talking now about what Federal Circuit Judge Jay Plager has appropriately described as the “murky morass that is Section 101 jurisprudence”—the controversial question of patentable subject matter.

Sadly, the inquisition has become relentless. The Supreme Court has waded into the murky morass of Section 101 four times in as many years. To make matters worse, subject matter patentability has proved to be even more of an attractive nuisance for the lower courts. What *should* be the avenue of last resort in a challenge to patent validity has become Question #1—even though all or virtually all of the sweeping decisions being made under Section 101 could be better decided under Sections 102, 103 and 112. In fact, and I say this only half-jokingly, if there was a mistake we made when working on the AIA, it was our failure to move Section 101 to Section 999—if only to reinforce that the patentable subject matter inquiry should be the *last* question the courts ask, not the first.

So why should we care whether unmerited patent claims are invalidated under Section 101 versus some other part of the statute? Because decisions perceived as arbitrary—which so many of the “I know it when I see it”

decisions made under Section 101 are—have a material impact on the actions of businesspeople and investors and innovators. The grounds of an invalidation decision are not just some jurisprudential exercise; they play a pivotal role in practical R&D strategy. Invalidating patents on novelty or nonobviousness grounds helpfully discourages recycling and repackaging old ideas in the guise of new media; invalidation on claim definiteness or disclosure grounds encourages appropriately bounded claims and a written description that enables the invention. But invalidation that merely looks to the “gist” of an invention (without serious consideration of the claims), declares it “abstract” and insufficiently “inventive”—which is exactly what the courts are doing—harmfully diverts investment from entire categories of invention.

Inventions on the frontiers of technology are particularly susceptible to being deemed abstract, precisely *because* they lay at the edges of what is known. These are inventions in technologies that hold immeasurable promise to improve our lives—software, biotechnology, big data, just to name a few. Inventions in these fields risk underinvestment due to a rising perception that the rules applicable to inventions in more familiar fields simply do not apply, and instead that inventions in these unwelcome fields are categorically unpatentable. The patent system was never designed to discriminate between categories of invention, but over-reliance on Section 101 is having precisely that effect.

The rising obsession with Section 101 is a dangerous phenomenon. Consider, for example, the substantial role that software innovations play in sustaining America’s prominence in the innovation sector. What could we possibly stand to gain by allowing Section 101 jurisprudence to denigrate software patents? Whether or not intentional, the data suggest this denigration is occurring at alarming rates, particularly since the Supreme Court’s most recent decision on Section 101, *Alice v. CLS Bank*.

A recent study of 40 federal court decisions applying the *Alice* framework found that of the 72 patents considered (66 computer or software related and 6 in the life sciences) less than 17% survived challenges under *Alice*.

Further, 85% of the time, the court’s litmus-test view on whether the inventive concept (as opposed to the patent claim itself) is abstract aligned with the final determination of patentability under Section 101. Some argue these invalidation rates represent a correction for previous over-patenting in the software industry—yet studies of invalidation rates have consistently

demonstrated that software patents are *not* statistically prone to being “bad” patents. Make no mistake: if America denies robust protection to software innovations, decreased investment will inevitably follow—eroding a competitive advantage in a sector that has proven vital to the United States economy. Again, to the benefit of overseas competitors who would like nothing better than an open ticket to copy US software innovation.

I'm not here to comment on the wisdom of the “abstractness” standard posited by the Supreme Court in *Alice*. While it is a highly subjective standard, and therefore an imperfect one, it might be the best we can do for now. The problem is relying on that imperfect standard when it is unnecessary to do so. Section 101 was always meant to be a coarse filter, and is extremely ill-suited for the fine-grained matters courts are increasingly running through it. Despite an express warning from the Supreme Court in the *Alice* opinion to “tread carefully” in construing Section 101’s exclusionary principle “lest it swallow all of patent law”, the lower courts have read onto *Alice* a command to begin every case touching on patent validity with a Section 101 inquiry.

The courts need to place primary emphasis on the Section 102, 103, and 112 standards for patentability. They will find most inquiries better addressed, and more helpfully addressed for patentees and the public alike, under these standards. And if there is anything Congress can do to encourage movement in this direction, that I would welcome. A move away from over-reliance on Section 101 would reassure innovators that breaking new ground in dynamic, unfamiliar fields will be rewarded to the same extent as inventions in other areas.

Unfortunately, the complex issue of Section 101 reform does not even register in the patent troll centric debate. Subject matter eligibility is an important issue, but not one requiring more application of Section 101 in the courts.

Part II. Competition Matters

At the same time the patent system has come under siege from critics who all-too cavalierly seek to heap reform on top of reform, there is also a surge in favor of cheap, immediate access to today’s most in-demand technologies using a separate body of law: antitrust. Ironically, against the backdrop of some of the most fiercely competitive industries in existence,

we see competition law being used to debilitate the strong innovation incentives provided by patent protection.

I will leave it to others during today's panels to discuss the details and advisability of the new IEEE rules on standard essential patents and the DOJ's prompt endorsement thereof. I would however, encourage us to take a step back and ask what data—not rhetoric—would suggest that these major policy changes are needed. In the case of the new IEEE SEP rules, they come on the heels of IEEE's creation, under its *old* policy, of 802.11, which IEEE itself touts as a heritage accomplishment. It just seems odd to me that the demonstrated success of the old policy in creating one of the most important and successful standards known to mankind would provide the groundswell to throw out the old policy in favor of a new approach that, whether "good" or "bad" overall, unquestionably tilts the field in favor of standards implementers over innovators. Has IEEE, like the infamous USPTO Commissioner over 115 years ago, concluded that all important inventions have already been created?

As with legislative reform, many of the supporters of an anti-trust solution to the patent “problem” rely on a narrative rooted in emotional appeals and absent facts. It is not difficult to imagine how this narrative has gained traction. Like Tom and Jerry, the Hatfields and McCoys, and the Yankees and Red Sox, antitrust authorities and monopolies have a storied rivalry—never the twain shall meet. And make no mistake, a patent *is* a monopoly of sorts. So it is no wonder the patent system should be scrutinized by agencies attuned to rooting out and busting up monopolies.

But a patent is a singular kind of monopoly. First of all, patents have term limits. To the extent the monopoly afforded by a patent poses a threat to competition (and I intend to show this is not actually the case) that threat is temporary, by definition.

Second, a patent is a monopoly on something that would not even exist but for the patent itself. So to the extent a patent takes something away from competitors, it is taking something away that competitors did not have access to in the first place. And when you explore the principal alternative to a strong patent system—trade secrecy—you end up with barriers to innovation of an infinite duration, a frustration of collaboration, and an inefficient allocation of resources that diverts from exploitation of technology toward concealing it. So the alternative isn't very fine.

Finally, in patents we have a monopoly to which our nation's founders expressly gave their blessing. Patent protection was acknowledged as so important to American development that it is provided for directly by the Constitution. As vital as competition law may have become, there is no "antitrust clause" in the Constitution, and certainly no "antitrust exception" to the Patent Clause.

Now, proponents of competition law trumping IP will make the argument that times have changed. Patent "thickets" and patent "holdup", they say, are an unprecedented phenomenon that could never have been envisioned by the founders. Never mind that our nation's most celebrated inventor, Thomas Edison, protected his innovations with over a thousand patents, and the first so-called "thicket" dates back to the Sewing Machine War of the 1850s. These proponents will tell you that patent pooling and standards setting must be scrupulously regulated, or else the public will be denied "fair" access to today's technologies.

The proponents tend *not* to speak about tomorrow's technologies, which, without the promise of exclusivity, have little chance of attracting the level of R&D investment required to bring them to fruition. And, unsurprisingly, the proponents tend not to present analyses of the available data. These data paint a picture of consumers who are not only enjoying access to cutting-edge technology, and at reasonable prices, but who also hold voracious appetites for improvements that can only be delivered as a result of further R&D investment.

Mobile technology is at the center of the controversy over competition law's role in the great patent debate, and thus a recently released comprehensive study by the Boston Consulting Group of the technology's impact can help put the debate into context.

One of the great ills that competition law seeks to cure is artificially inflated prices tolerated on account of monopolistic practices. To be sure, the exclusivity offered by patents allows the patent holder to command higher prices than it would command without the patent—that's the whole point of the patent. But because of licensing, follow-on technologies, and other outcomes flowing from the disclosure-incenting patent system, the benefits outweigh the costs. This is borne out by one telling fact from the BCG study of mobile technology: the average mobile subscriber cost per

megabyte decreased a dramatic 99% between 2005 and 2013. Infrastructure costs have also seen dramatic falls, with a 95% cost reduction per megabyte transmitted from 2G networks to 3G networks, and a further 67% drop from 3G to 4G networks.

What consumers pay for mobile technology and the value they ascribe to it similarly demonstrate that the patent system is far from a barrier to access. BCG's research across the top six geographic markets for mobile reveals that each consumer values their access to mobile technology at between \$700 and \$6,000 overall, contributing to a \$6.4 trillion surplus above the cost of the devices and services across these six countries.

And consumers are hungry for more advances: 90% of 3G and 4G consumers report wanting faster data speeds, greater coverage and longer battery life, among other improvements. Global data usage is doubling every year, which could lead to data traffic within the decade 1,000 times greater than today's levels. In order to accommodate this skyrocketing demand, investment in new technologies will be crucial. Companies in the mobile value chain invested \$1.8 trillion in infrastructure and R&D from 2009-2013, with companies focused on mobile's core technologies investing a whopping 21% of revenue in R&D—as a percentage of revenue, second only to the biotechnology industry.

And what do industry commentators have to say about the problem of patent “hold-up” allegedly facilitated by standard essential patents? The Alliance for Telecommunications Industry Solutions reported that it “has not experienced the hold up problem”; the Telecommunications Industry Association reported that it “has never received any complaints regarding such ‘patent hold-up’”; the American National Standards Institute reported that “for only a relatively small number [of standards] have questions ever been formally raised regarding [its] Patent Policy, including issues relating to improper ‘hold up.’” Professors and analysts have noted the absence of empirical evidence indicating a significant problem of patent “hold-up” or of windfall gains to patent owners impeding the adoption of technology-based standards across industries. And in the cellular industry, it has been noted that implementers and carriers—not technology developers—already reap the overwhelming majority of profits generated by the products enabled by licensed IP.

Once we examine the data we find that, as pertains to IP, antitrust provides a

solution to a problem that just doesn't exist—except, of course, for those utilizing a business model built on reaping the tech harvest innovators have sown.

This does not mean there can be no role for competition law across the spectrum of IP-reliant industry. But we need to bring antitrust into the 21st century. Acknowledging that the patent law itself is a check on harmful monopolistic practices, antitrust authorities would be most effective operating on the fringes of IP. The FTC need not weigh in on what are fair reasonable and non-discriminatory terms and certainly should not be forcing royalty prices down. The proper role for competition law is to make examples of those few egregious behaviors demonstrating truly anti-competitive impact.

The FTC did just this when it went after MPHJ Technology Investments, a patent assertion entity accused of using manifestly deceptive tactics in extracting royalties for patents by threatening lawsuits that were ostensibly meritless and that it had no intention of ever filing. As the Director of the FTC's Bureau of Consumer Protection said upon reaching settlement with MPHJ, "a patent is not a license to engage in deception." When patent holders cross the line from collecting on their investment in innovation and engage in making idle and surreptitious threats, then FTC intervention benefits innovators and consumers alike. Deterring such abuse complements the existing protections built into the patent system.

But make no mistake: when it comes to cases other than the truly egregious, antitrust intervention is not necessary, and serves only to deter the very investment in innovation the patent system was carefully engineered to encourage.

There are already plenty of market forces in play to address concentration of power—if you don't believe me, I would ask how many of you in the audience today are carrying in your pocket a Motorola pager or a Nokia cell phone? One company or another has always been touted as an existential threat to an efficient tech market, and yet the threat never seems to materialize. And the fact that the threat never materializes is not in spite of patents, but rather **because** of them.

Patents may be a type of monopoly, but they are far from a guarantor of market position. While counterintuitive, in reality it is the patent laws,

more so than antitrust enforcement, that are best suited to thwart market dominance in fields that rely on technological advancement. The patent laws provide the most powerful incentive there is for new entrants to invest in creating new technologies. And it is just these technologies that routinely disrupt dominant firms, ultimately dislodging their dominant positions. The stronger the incentives provided by the IP laws, the higher the likelihood of disruption, and the faster the disruption. Were the new, more nimble entrants' technological contributions freely and immediately exploitable by the monolithic standard-bearers in the field, such disruption would be extremely rare. Ironically then, the best policy move we can make to advance the purpose of the antitrust regime is actually to **strengthen** the IP system. Let's name that the STRONG patents doctrine: the stronger the patent system, the less risk of harmful market concentration.

Conclusion

My remarks today may cause some to wonder whether I have turned overly hawkish on patent litigation reform, opposed to any further legislation. Not so. There are balancing improvements that clearly need to be enacted: measures to curb egregiously aggressive demand letters, articulation of goals for pleading and discovery as guidance for the Judicial Conference, redirection away from undue judicial emphasis on Section 101, and, critically, putting an end to PTO fee diversion. Add to this some adjustments to the post-grant reviews at the PTO created by the AIA, and a measure that stops abusive stock market manipulators from new pump-and-dump schemes that threaten the health of our bio-pharma industry, and we'll have made the world's best patent system even better. So reform, yes, but **smart** reform.

Intellectual property represents a long term investment system that is perpetually pitted against short-term exigencies. Very simply, our patent system is like a retirement savings plan. Historically, we have agreed as a nation to pay a little more now for today's innovations in exchange for having more great innovations available in the future.

As we wrestle with competing short-term and long-term objectives, it is crucial that the arguments rest soundly on facts and data, and are not hastily propped up by misleading anecdotes and divisive rhetoric. When appropriately bounded by appeals to the practical realities of our innovation

ecosystem, the patent debate can lead us to a more finely tuned system balancing access to today's technology with the promise of tomorrow's advances. Conversely, harried reform efforts and collateral attacks from other bodies of law that are not constrained by thoughtful analysis imperil the greatest innovation engine the world has ever known. That in turn undermines the competitive position of our country and the job creation engine that has been uniquely American for generations. If we are to remain a first-rate innovator nation, we must be careful never to let today's politicized narrative persuade us to forego the tremendous technical wonders that lie just beyond the horizon.