Let’s talk about the thing that no respectable teenager, college student, law student – or for that matter, law professor – can live without: the Smartphone. We email and text with it, and use it to communicate with friends on social networks. We take class notes with it, write our papers with it, and generally employ it as a mobile computer work station. We navigate around town and in our car with it. We watch movies and TV on it. We read books with it. We locate our child with it. We play video games with it. We bank with it, and pay bills with it. And let us not forget: we can even make phone calls with it!

Smartphones are not one device – they are multiple devices wrapped into one sleek unit. They are the Swiss Army knife of our modern age: a collection of services and functions in one handy package that slips right into our pocket. If it only had a corkscrew on the side, it would be perfect.

And who knows, even that might come standard on the iPhone 6.

As consumers, we are delighted with each new, faster, sleeker smartphone that comes out. We thrill to each new app we discover, especially if it involves catapulting birds or slicing up fruit, ninja style. We cherish the creativity and innovation in this remarkable sector, and we reward it with a good portion of our disposable income.

So not surprisingly, the technology built into smartphones lies at the heart of many current patent disputes. Thousands of patents govern the technology in each smartphone – some have estimated that the number is arguably as high as 250,000. In order for smartphones to work, and allow consumers to communicate seamlessly with each other, many of their functions must be standardized. For example, the wireless networks that most of our smart phones use are governed by standards set by the International Mobile Telecommunication Union, including the 3G and 4G wireless networks. Standards ensure that certain measures of reliability and speed are met.

And because many of the standards are governed by patents owned by different companies, firms must license and cross-license with each other. Some of the biggest high-tech companies are keenly interested in how their own patented technology, as well as the patented technology of their competitors and partners, is standardized and shared to build today’s smartphones. And needless to say, the incentive to game the patent system to get a leg up on competitors can be quite strong.

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Welcome to the patent wars! Where the stakes are high, and the impact on consumers is potentially enormous.

And although the final battle has not yet been fought nor the victor crowned, I believe that – with effective application of intellectual property law and robust enforcement of our competition law – we can ensure that high-tech innovation does not become collateral damage in this war. Both patent law and competition law are designed to protect incentives for entrepreneurs to bring new and better products, technologies, and services to market more efficiently and provide them to consumers at lower prices.

At the FTC, we have a longstanding interest in the intersection of intellectual property and antitrust. Our interest is bipartisan, held by Commissioners of all political stripes and spanning across various administrations. We have worked hard to ensure that our policy pronouncements and enforcement priorities are grounded in sound legal theory and business reality. Along with our sister competition agency, the US Department of Justice, we have held numerous workshops and hearings, obtaining input from a wide spectrum of stakeholders -- business representatives from large and small firms, the independent inventor community, leading patent and antitrust organizations and practitioners, consumer groups, and scholars. This extensive effort led to some important policy pronouncements: the FTC - DOJ joint Intellectual Property Guidelines,2 as well as the FTC’s three seminal intellectual property reports.3

Let me touch on just a few of the roadblocks we found at the intersection of intellectual property law and antitrust.

First, we concluded that trivial and overbroad patents undermine competition, with no offsetting benefits to consumers. One firm’s questionable patent may lead a competitor to forgo research and development in an area the patent supposedly covers, deterring follow-on innovation and new market entry. These effects conflict with the goals of both intellectual property and antitrust law.

Second, we considered how two processes – patent notice on the front end and remedies on the back end --can have a huge impact on incentives to innovate, on competition, and on consumer welfare.

On the front end, patent holders are required to notify the public about their patented technology in order to receive the patent laws’ considerable benefits. Clear notice of what a patent covers promotes innovation by encouraging firms to collaborate around the patented technology, and to design around patents to continue innovation and increase competition. Poor


notice of the scope of a patent undermines these benefits, because potential licensees can’t find relevant patents, and companies may hesitate to invest in technology where the scope of their competitors’ patents is unclear. Poor notice also can distort competition by forcing firms to invest in new products without full knowledge of the cost and availability of different technologies.4

And at the back end, we addressed the need for patent remedies to align compensation to patent holders with the economic value of their patented inventions. It is obvious how damages that under-compensate patent holders for infringement can deter innovation. But overcompensation can be equally harmful, leading to higher prices and encouraging speculation in patent rights, which also deters innovation. We recommended that courts cap reasonable royalty damages at the amount a willing licensee would pay, which can be determined by the value of the invention over alternative technologies.5 We also recommended that courts incorporate into their injunction analysis concerns about the effect that an injunction may have on a patent holder’s ability to obtain royalties exceeding the economic value of an invention – what we call “patent hold-up.”6

Both the Supreme Court and Congress adopted several of our policy recommendations. In KSR v. Teleflex,7 the Supreme Court broadened the standard for invalidating patents on obviousness grounds. The Court found the prior test for obviousness – the “suggestion” test – was a “rigid rule that limits the obviousness inquiry,”8 noting that “the results of ordinary innovation are not the subject of exclusive rights under the patent laws. Were it otherwise, patents might stifle, rather than promote, the progress of useful arts.”9

And in eBay v. MercExchange,10 the Supreme Court addressed whether patent holders seeking permanent injunctions against patent infringers are required to satisfy the traditional standard for injunctions.11 Federal courts had not been applying this test in patent infringement cases, resulting in virtually automatic injunctive relief barring the infringer from using the patented technology. But in eBay, the Supreme Court said federal courts must use the traditional

4 To avoid those problems, we recommended enhancing the patent examination record to assist potential competitors more easily interpret the scope of patent claims. 2011 IP Report, supra note 3, at 14. We also recommended that administrative and judicial review of patent applications incorporate more full considerations of competitors’ ability to predict the breadth of claims from their written descriptions. Id. at 15.


6 Id. at 27-30.


8 Id. at 419.

9 Id. at 427.


11 The traditional test requires a plaintiff to demonstrate that (1) it suffered an irreparable injury; (2) remedies at law are inadequate to compensate for that injury; (3) an injunction is warranted in light of the balance of hardships between the plaintiff and the defendant; and (4) the public interest would not be disserved by a permanent injunction.
test before they can impose an injunction order, thereby requiring case-by-case application of traditional equitable principles, including requiring proof of the patent holder’s irreparable harm and the inadequacy of money damages. Justice Kennedy cited our 2003 Intellectual Property Report in his *eBay* concurrence, noting that firms primarily engaged in IP licensing can use the threat of injunctive relief to demand higher royalties or more costly licensing terms after the standard is implemented than they could have before their IP was included in the standard.

Congress’s 2011 Patent Reform Bill, known as the America Invents Act, also adopted several of our policy recommendations. Most notably, the America Invents Act incorporates a new post-grant review process that will provide a less expensive means – one that is short of litigation – to allow third party challenges to trivial or overbroad patents.

Now let’s turn to the FTC’s enforcement actions. Some of our law enforcement efforts focus on abuse of patent rights by high-tech firms in the standard-setting process. And like our other work in this space, our efforts here have been bipartisan, beginning 16 years ago in the *Dell Computer* matter, brought during the Clinton administration, and continuing through the *Rambus* and *N-Data* cases, both brought during the Bush administration. We have focused our energy on standard setting in the high-tech sector because of its enormous value to consumers, ensuring devices within a system will work together and communicate with each other in standardized, predictable ways. Just as critically, standard setting holds potential for patent holders to abuse the process by manipulating the standard-setting process or improperly using the resulting standard to gain an advantage over rivals. If a patent covering a particular technology becomes incorporated into an industry standard through abusive tactics – like deceptively failing to disclose a relevant patent to the standard-setting organization – the technology may gain unfair market power once the standard is established, and companies find it too expensive to switch. Our *Dell Computer*, *Rambus*, and *N-Data* cases were all founded on concerns about abuse in the standard-setting process, and its effect on competition.

More recently we have delved into the ongoing debate over appropriate remedies in licensing disputes involving standard essential patents (SEPs), where the patent holder has

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12 547 U.S. at 394.


agreed to license the technology on “fair, reasonable, and non-discriminatory” terms, also known as FRAND.\textsuperscript{18} The central question is whether -- in the context of a dispute with licensees over how much the license should cost -- holders of standard essential patents who have promised to license their technology on FRAND terms should also be able to obtain an injunction through the courts or the International Trade Commission (ITC) against potential licensees, which would bar them from using the FRAND-encumbered standard essential patent.

The Federal Trade Commission is concerned that seeking an injunction or an exclusion order for a standard essential patent is in tension with the patent holder’s FRAND commitment, especially when there is a licensee willing to negotiate a license on FRAND terms. This problem is aggravated in cases seeking an exclusion order brought before the ITC. Use of the ITC as a venue for patent challenges has tripled in the last ten years.\textsuperscript{19} Under the Supreme Court’s equitable analysis in eBay, FRAND-encumbered standard essential patent holders may have a tough time in federal court demonstrating that money damages are inadequate, because they have already committed to license their intellectual property on FRAND terms. But the ITC is not required to follow eBay, and so use of the ITC as a venue for patent challenges threatens to undermine the procompetitive aspects of the eBay decision, and potentially turn the ITC into a forum for patent hold-up.

The ITC invited comment on this issue in June, in the cases that Motorola Mobility/Google brought against Apple and Microsoft, where Motorola Mobility and Google sought exclusion orders for infringement of their FRAND-encumbered standard essential patents. The FTC told the ITC that FRAND-encumbered standard essential patents present considerably different issues than patents that are not encumbered by a commitment to license.\textsuperscript{20} We pointed out that the ITC has authority to consider the “public interest” in a case where a patent holder seeks an exclusion order.\textsuperscript{21} Under this authority, we believe the ITC should

\textsuperscript{18} Prior to the adoption of a standard, alternative technologies compete to be included in the standard, on the basis of features, quality, or price. Standard setting organization members often require SEP holders to license on FRAND terms as a \textit{quid pro quo} for inclusion of their patents in a standard. This makes it easier to adopt a standard, and certainly benefits the company that has offered its technology to form the industry standard. Once a standard is adopted, an entire industry begins to make investments tied to the standard. Because it may not be feasible to deviate from the standard unless all or most other participants in the industry agree to do so in compatible ways, and because all of these participants may face substantial switching costs in abandoning initial designs and substituting a different technology, an entire industry may become locked into a standard. This gives a SEP owner the ability to demand and obtain royalty payments much higher than might have been available prior to adoption of the standard, because these rates need not be based on the true market value of its patents, but instead on the costs and delays of switching away from the standardized technology. On top of this, a SEP owner’s ability to seek an injunction or exclusion order enforcing its SEPs increases their bargaining leverage even further.

\textsuperscript{19} 2011 IP Report, \textit{supra} note 3, at 239.


\textsuperscript{21} The ITC’s governing statute, Section 337, describes a “public interest” prong under which the ITC is obligated to consider “competitive conditions in the United States economy . . . and United States consumers”. 19 U.S.C. § 1337(d)(1), (f)(1).
consider concerns about patent hold-up in fashioning remedies relating to FRAND-encumbered standard essential patents, to ensure that the remedies do not conflict with the public interest.

We proposed to the ITC that it could impose a range of alternative remedies that would be consistent with public interest considerations. For example, the ITC could find that the public interest requires denial of an exclusion order if the holder of the FRAND-encumbered standard essential patent has not negotiated with potential licensees in good faith.22

As Judge Posner put it in a recent federal court case, “I don’t see how, given FRAND, I would be justified in enjoining Apple from infringing the … [patent] unless Apple refuses to pay a royalty that meets the FRAND requirement.” He continued, “[b]y committing to license its patents on FRAND terms, Motorola committed to license the … [patent] to anyone willing to pay a FRAND royalty and thus implicitly acknowledged that a royalty is adequate compensation for a license to use that patent.”23

CONCLUSION

Okay, it is time to turn off those muted YouTube videos of cats playing piano that some of you have been surreptitiously watching on your cell phones – and really, don’t they lose most of their appeal without the sound? Change your Facebook status from “At lecture. FTC Commish going on and on.” And sign into Twitter. I’m concluding with something you can tweet:

“FTC will continue w/robust enforcement at intersection of patent & comp laws to protect innovation in high-tech, says Commish Brill”

#thankyou

#youvebeenagreataudience

22 Alternatively, the ITC could delay the effective date of its remedies until the parties mediate in good faith for damages for past infringement and/or an ongoing royalty for future licensed use, with the parties facing the respective risks that the exclusion order will (i) eventually go into effect if the implementer refuses a reasonable offer or (ii) be vacated if the ITC finds that the patent holder has refused to accept a reasonable offer. Third Party United States Federal Trade Commission’s Statement on the Public Interest filed on June 6, 2012 in In re Certain Wireless Communication Devices, Portable Music & Data Processing Devices, Computers, and Components Thereof, Inv. No. 337-TA-745, Notice of Commission Decision Finding No Violation of Section 337 as to Three Patents and Remanding the Investigation to the ALJ as to one Patent, August 23, 2012.

23 Apple, Inc., 2012 WL 2376664, at *12. Judge Posner was sitting by designation in the Northern District of Illinois, and applied eBay’s equitable analysis to find that Motorola would not be entitled to an injunction for infringement of a FRAND-encumbered standard essential patent. This case is currently on appeal to the Federal Circuit.