

DEPARTMENT OF JUSTICE

Promoting Innovation Through Patent and Antitrust Law and Policy

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Let me begin today by thanking the Patent and Trademark Office for hosting this important interagency workshop and inviting the Antitrust Division to participate. I especially want to thank David Kappos and his entire team, not only for today, but for their ongoing and tireless efforts to improve the patent system and intellectual property enforcement both here and abroad.¹

I. In Pursuit of Innovation

Invention and innovation are critical in promoting economic growth, creating jobs, and maintaining our competitiveness in the global economy. In fact, a recent PTO report estimates that innovation accounts for fully three quarters of our nation's post-World War II growth.² Progress in technology and production processes drives prices down and quality up, while expanding the range of consumer choices. Many of the greatest benefits of invention and innovation are hard to measure—the value of technologies that alleviate illness and extend our lives, that deliver food and water to vulnerable populations, that allow us to respond to natural disasters, and that allow families separated by oceans to connect face-to-face cannot be quantified in dollars and cents alone. In short, innovation is the essential element not only of economic growth, but of human progress as well. We thus have a vital interest in seeing it flourish.

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¹ See generally Statement of David J. Kappos, Under Secretary of Commerce for Intellectual Property and Director of the United States Patent and Trademark Office Before the Committee on the Judiciary, U.S. House of Representatives (May 5, 2010), available at http://judiciary.house.gov/hearings/pdf/Kappos100505.pdf.

² See Arti Rai et al., Patent Reform: Unleashing Innovation, Promoting Economic Growth & Producing High-Paying Jobs (U.S. Dep't of Commerce, Apr. 13, 2010).

Today, it is widely recognized that patent and antitrust drive innovation in different but complementary ways.³ Both disciplines promote dynamic efficiency: that is, a system of property rights and market rules that create appropriate incentives for invention, innovation, and risk taking—delivering the greatest returns for society not just for today, but tomorrow as well. The patent grant does this by providing incentives for inventors to take risks and make investments in research and development. Patents transform a claimed piece of intellectual progress into a property right, allowing the inventor to exclude others from using that invention during the term of the patent. Our intellectual property framework further advances follow-on innovation through public disclosure of the invention. Antitrust's core mission is to appropriately foster and protect the competitive environment by preventing certain conduct that threatens free markets. This environment is what pushes companies to constantly innovate and allows them to profit when they do. Antitrust recognizes the critical role that intellectual property rights play in driving innovation and so values these rights.⁴ Yet antitrust applies the same analytical framework to intellectual property as it does to other forms of property.⁵ and

³ See *Atari Games Corp. v. Nintendo of Am., Inc.*, 897 F.2d 1572, 1576 (Fed. Cir. 1990) ("The aims and objectives of patent and antitrust laws . . . are actually complementary, as both are aimed at encouraging innovation, industry, and competition.").

There is Department-wide recognition of the importance of intellectual property and the Department of Justice is committed to using its all its tools to ensure that intellectual property rights are enforced and infringements are appropriately punished. One sign of this is the Department's recently created Task Force on Intellectual Property to coordinate its enforcement efforts in this essential realm. Attorney General Eric Holder has made clear that combating intellectual property crimes—including piracy, counterfeiting, and corporate espionage—are high priorities for the Department in the coming decade. Eric Holder, U.S. Attorney Gen., Remarks at the Rio De Janeiro Prosecutor General's Office (Feb. 24, 2010), available at http://www.justice.gov/ag/speeches/2010/ag-speech-100224.html. This complements the Administration's interagency initiative to improve the efficiency and effectiveness of intellectual property enforcement. Coordination and Strategic Planning of the Federal Effort Against Intellectual Property Infringement: Request of the Intellectual Property Enforcement Coordinator for Public Comments Regarding the Joint Strategic Plan, 75 Fed. Reg. 8137 (Office of Mgmt. and Budget, Feb. 23, 2010), available at http://www.whitehouse.gov/omb/assets/fedreg 2010/02232010 ipi.pdf.

⁵ See U.S. Dep't of Justice & Fed. Trade Comm'n, Antitrust Guidelines for the Licensing of Intellectual Property § 2.1 (1995).

imposes some rules about how the patent monopoly can—and cannot—be used.⁶ Thus, antitrust and patent law work together to create and preserve the appropriate incentives for technological progress by creating property rights and preserving competition around those rights.

The stakes are high for competition and innovation if the patent system is not working properly or antitrust enforcement policy is improperly calibrated. Our ability to use one regime to correct for shortcomings in the other is limited. This is what makes sessions like today's so important. The competitive implications of flaws in either system are tremendous, and although many of the issues on the table today are properly issues of only patent or antitrust in the first instance, their ramifications for the *other* system will certainly be worth consideration in the final analysis.⁷ That is why I believe it is important for the Department of Justice to participate regularly in intellectual property cases—such as in *Bilski*, *Quanta*, *eBay v. MercExchange*, the Google Books settlement dispute. Arkansas Carpenters Health (the "Cipro"

⁶ As the D.C. Circuit somewhat colorfully noted in the *Microsoft* case, an intellectual property right no more confers protection from antitrust scrutiny than the argument "that use of one's personal property, such as a baseball bat" is protected from tort liability. United States v. Microsoft Corp., 253 F.3d 34, 63 (D.C. Cir. 2001) (en banc) (per curiam).

⁷ For example, consider the current patent backlog at the PTO, an issue that will be discussed today. Backlog creates uncertainty for patent applicants, who do not know what rights they will have vis-à-vis a particular technology, and for others trying to determine what they can and cannot do with a particular technology. This can have significant competitive market implications, and thus the Antitrust Division is very concerned about this issue, thought it is not directly an antitrust issue. The leadership of the PTO is clearly committed to addressing the backlog problem, and for obvious reasons we applaud and wholeheartedly support their efforts.

⁸ Brief for the Respondent, Bilski v. Kappos, No. 08-964 (U.S. Sept. 25, 2009), *available at* http://www.abanet.org/publiced/preview/briefs/pdfs/07-08/08-964_Respondent.pdf.

⁹ Brief for the United States as Amicus Curiae Supporting Petitioner, Quanta Computer, Inc. v. LG Elecs., Inc., 553 U.S. 617 (No. 06-937), *available at* http://www.justice.gov/atr/cases/f227600/227630.pdf; Brief for the United States as Amicus Curiae, *Quanta*, 553 U.S. 617 (No. 06-937), *available at* http://www.justice.gov/atr/cases/f225500/225544.pdf.

¹⁰ Brief for the United States as Amicus Curiae Supporting Respondent, eBay Inc. v. MercExchange, LLC, 547 U.S. 388 (2006) (No. 05-130), *available at* http://www.justice.gov/atr/cases/f215700/215790.pdf.

¹¹ Statement of Interest of the United States of America Regarding Proposed Class Settlement, The Authors Guild, Inc. v. Google, Inc., No. 05-08136 (S.D.N.Y. Sept. 18, 2009), *available at* http://www.justice.gov/atr/cases/f250100/250180.pdf.

case). 12 It is also why both the Antitrust Division and the Federal Trade Commission devote substantial thought to these issues, including the agencies' joint antitrust guidelines for the licensing of intellectual property in 1995, the FTC's substantial 2003 report on patent law and policy, 13 and the agencies' joint workshops and 2007 report on the intersection of antitrust and intellectual property law and policy. 14 Though the issues we will be considering are difficult ones, I am confident that by promoting an ongoing dialogue and even closer working relationship among all of our agencies, we will find ways to make sure our tools work together to further our common goal of promoting innovation and competition. American patent law's devotion to "the progress of science and the useful arts" is as old as the Constitution itself. 15 I am committed to making sure that antitrust equally promotes such progress.

II. Invention, Innovation, and Incentives

When the system of intellectual property rights, enforcement actions, antitrust rules, and infringement remedies is working well, it produces a reward for invention that reflects the value and originality of that invention. It is important to distinguish, however, between *invention*, by which I roughly mean the act of having an idea and rendering it into a working design, and *innovation*, or the act of taking inventive ideas and designs and bringing them to market.

Invention and innovation together produce tremendous welfare, and they should enrich the

Brief for the United States in Response to the Court's Invitation, *In re* Ciprofloxacin Hydrochloride Antitrust Litig., 604 F.3d 98 (2d Cir. 2010), *available at* http://www.justice.gov/atr/cases/f247700/247708.pdf.

¹³ Fed. Trade Comm'n, To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy (2003), *available at* http://www.ftc.gov/os/2003/10/innovationrpt.pdf.

¹⁴ U.S. DEP'T OF JUSTICE & FED. TRADE COMM'N, ANTITRUST ENFORCEMENT AND INTELLECTUAL PROPERTY RIGHTS: PROMOTING INNOVATION AND COMPETITION (2007), *available at* http://www.usdoj.gov/atr/public/ hearings/ip/222655.pdf [hereinafter IP2 REPORT].

¹⁵ See U.S. CONST. art. 1, sec. 8, cl. 8.

inventor, the innovator, consumers, and society as a whole. Yet depending on the rules and the systems we have, the inventor can be undercompensated, which reduces the incentive for the next inventor to push technology forward; or, she can be overcompensated for her invention, which can reduce the incentive for innovators to take that idea to market or for other inventors to build upon it with subsequent inventions.¹⁶ In our legal and economic systems, we largely rely on market forces to sort this out and determine how economic reward is to be apportioned.

These market forces function best when participants are *well-informed* and can engage in *up-front* negotiations. Ideally, transactions in intellectual property should be as close as possible to dealings in traditional property in this respect: the parties (intellectual property rights holders and the innovators or implementers seeking to build upon those rights) should know what they are getting; they should deal at arm's length; and they should be able to do so when they are still in a position to choose among reasonable alternatives. In a well-functioning system, we can generally trust these negotiations to reach results that enhance consumer welfare over the long run. To make the system work, then, patent and antitrust law and policy should be designed to reduce unnecessary uncertainty and create or approximate these well-informed, up-front negotiations to the greatest extent possible. Let me discuss two specific areas where our legal regimes can work—and can work better—to embody this important goal.

A. Compatibility and Interoperability Standards

The first is standard setting, which is perhaps the closest to traditional antitrust law and policy of the topics we will be discussing today. There is no doubt that standard setting creates enormous benefits for businesses and consumers alike. Standards can reduce the costs of producing products and can foster public health and safety. Compatibility standards—which

¹⁶ See, e.g., Brian J. Love, *Patentee Overcompensation and the Entire Market Value Rule*, 60 STAN. L. REV. 263, 272 (2007) (noting that "overcompensation results in socially undesirable consequences such as reduced incentives for investment in beneficial technology.").

have become increasingly prevalent—enable interoperability and interchangeability among complementary products by ensuring that products from a variety of suppliers will work together. These standards make networks—like the Internet, mobile telephones, and the other products that are revolutionizing our world—both possible and more valuable. Moreover, setting such standards collaboratively can avoid many of the costs and delays of a standards war, enabling products to reach consumers more quickly and at a lower cost than may otherwise be the case. Of course, within the standard setting framework, there is a potential for both collective and unilateral behavior that violates the antitrust laws. Antitrust law must ensure that the benefits of standard setting are realized, with abuses deterred in the first instance and prosecuted when they materialize.

The core principles of antitrust policy as it applies to standard setting are as follows. First, the value generated by standard setting should be apportioned fairly and efficiently, with no company able to distort the process to achieve anticompetitive ends and an unwarranted reward for its invention. Second, the structure that will best ensure that result entails clear disclosure and licensing rules, allowing stakeholders to make timely and well-informed decisions about which technologies to include in a standard and whether to incorporate it into their products. Implementing these principles is hardly simple, but we have a responsibility to do what we can to get it right.

In recent years, antitrust has been concerned with the way that the standard setting process can be abused to enable hold-up. Hold-up occurs when, *after* a technology has been incorporated into a standard and *after* the costs of switching to another technology have grown, a

¹⁷ IP2 REPORT, *supra* note 14; CARL SHAPIRO & HAL R. VARIAN, INFORMATION RULES: A STRATEGIC GUIDE TO THE NETWORK ECONOMY 227-59 (1999); *see also* Carl Shapiro & Hal R. Varian, *The Art of Standards Wars, in* MANAGING IN THE MODULAR AGE: ARCHITECTURES, NETWORKS, AND ORGANIZATIONS (Raghu Garud et al. eds., 2003).

patent holder is able to come forward to claim ownership of the technology and thus to reap a reward much larger than it could have obtained when the costs of choosing an alternative were lower. These hold-up issues have primarily arisen in the context of interoperability standards.

The issue is that the standard itself can confer monopoly power on the intellectual property holder that would not otherwise exist. In general, there is a certain amount of market power that appropriately attaches to an invention: the kind that represents the real superiority of the invention over its substitutes. Yet there is also the potential for inventions to acquire unearned monopoly power: the kind that results from the fact that innovators have already sunk resources into making the technology a part of new products or standards—investments the intellectual property holder can leverage by threatening to take the use of its invention away after the fact. Moreover, it is the increment that matters. A technology may have been functionally superior to its substitutes at the outset, but its economic superiority can be greatly *enhanced* once it has been incorporated into a standard. If licensing discussions take place at this late stage, the patent holder will be able to secure licensing agreements on terms that are much more favorable than what they would have obtained up front. This unearned increment of market or monopoly power represents diminished competition among technologies—competition that could have resulted in greater supply and lower end prices for consumers. Thus, it is a classic antitrust problem.¹⁸

There are diverse rules and procedures that standard-setting organizations (SSOs) themselves can and do adopt to mitigate the risk of hold-up. We have a vast array of different SSOs in our economy, so these various methods are right now being tested by experience and experimentation in a free market setting. Firms and industries are different, and it is highly unlikely that one solution will fit all industries or technologies. Nevertheless, we can outline

¹⁸ See generally Joseph Farrell et al., Standard Setting, Patents, and Hold-Up, 74 ANTITRUST L.J. 603 (2007).

some of the strategies for the treatment of patents in standard setting that merit consideration, and the factors that SSOs may well want to bear in mind as they develop their rules regarding intellectual property.

Most important is clarity. SSOs typically have rules about disclosure and licensing of possible intellectual property rights that are essential to or likely to read on the standard. While these rules and obligations may vary greatly, they should be clear; if there are no firm obligations—to search for relevant patents, for example, or to disclose them—that should be clear as well. Well-defined rules can minimize any ambiguity regarding what is or is not required of participants of SSOs (and obligations that may attach to the transfer of essential intellectual property by a participant). Even without saying what rules are best, it is at least plain that clearer rules will allow for more informed participation and will enable participants to make more knowledgeable decisions regarding implementation of the standard. Clarity alone does not eliminate the possibility of hold-up, and does not address issues with non-participants, but it is a step in the right direction.

Clear disclosure rules are particularly important.¹⁹ Several antitrust cases involving standard setting have focused on a participant's allegedly deceptive failure to disclose the existence of a patent claim during the standard-setting process.²⁰ Yet in the absence of a plain fraud or intentional misrepresentation, deception is about the expectations of the "listener," and when the expectations are not clear or uniform, claims of deception can become complicated litigation issues. Standard-setting organizations can simplify these issues considerably by clearly

¹⁹ See generally Philip J. Weiser, *Making the World Safe for Standard Setting* (U. Colorado L. Legal Studies Research Paper Series, Working Paper No. 08-06, 2007), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1003432.

²⁰ E.g., Rambus, Inc. v. FTC, 522 F.3d 456 (D.C. Cir. 2008); Decision and Order, *In re* Dell Computer Corp., FTC Docket No. C-3888 (July 28, 1999).

articulating the rules regarding what kinds of patents and applications must be disclosed, whether a rigorous search for relevant or essential patents is necessary, and the ramifications if disclosures are not made. With these assurances, private contract law can go a long way in deterring opportunistic conduct. Of course, there is room for considerable difference in practice, as well as for experimentation, among SSOs and industries. What all should avoid, however, are rules that leave the ultimate disclosure requirements in doubt or subject to wide variation.

Clarity is also important as to the meaning of the term "reasonable" when it is incorporated by SSOs in "reasonable and non-discriminatory" (RAND) licensing requirements or policies. Commitments to license on RAND terms are sometimes used by SSOs as a prerequisite for participation and may be used as a ceiling for failure to disclose relevant patents. A royalty-free license may also be required by an SSO. If the contours of "reasonable" are not well-defined, RAND commitments—especially RAND commitments made in lieu of disclosure—can still permit hold-up or over-compensation for patent holders. Conversely, if the meaning of a RAND commitment is clear, it can be used to ensure compensation commensurate with the probable results of well-informed, up-front negotiations, reducing the incentive for attempted hold-up or manipulation of the process. Clear rules will increase the ability of stakeholders in the standard-setting process, including rights holders and implementers, to know, *up-front*, what they are getting into when they choose to participate in the SSO, when they choose to disclose or not disclose potentially relevant intellectual property, and when they choose whether to implement a standard. At the very least, they will know what they do or do not know.

Clear rules are able not only to remedy problems, but also to deter misbehavior at the outset. Different policies will, of course, impose different costs and benefits, and experimenting with these rules is predominantly a private matter for the SSOs. Yet, this does not mean there is

no role for the government, both in challenging abuses of the process and providing guidance to the standard setting community.

The antitrust agencies have provided guidance to SSOs and their participants regarding what they may do within the bounds of antitrust law to protect themselves from such hold-up potential. For example, the Antitrust Division has commented in the joint report with the FTC, in business review letters, and in speeches, on *ex ante* disclosure of licensing terms in the standard-setting context and on *ex ante* negotiations between SSOs and intellectual property rights holders. The Division has recognized that in choosing among competing technologies, SSOs may benefit from knowing not only the performance trade-offs but also the cost of using these various technologies, including any royalty costs. Moreover, those costs should be known *before* technologies become incorporated into the standard, not after. Thus, despite the fact that collective bargaining over licensing terms raises traditional antitrust concerns, the agencies concluded in their 2007 report on intellectual property that such discussions merit rule-of-reason treatment in the general case, and the Antitrust Division stands strongly behind that conclusion.

Similarly, in the *VITA* business review letter, the Division expressed no intent to take action against an organization proposing to require member firms to disclose their maximum

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²¹ Letter from Thomas O. Barnett, Assistant Attorney Gen., U.S. Dep't of Justice, to Michael A. Lindsey, Esq. (April 30, 2007) (IEEE Business Review Letter), *available at* http://www.justice.gov/atr/public/busreview/222978.pdf; Letter from Thomas O. Barnett, Assistant Attorney Gen., U.S. Dep't of Justice, to Robert A. Skitol, Esq. (Oct. 30, 2006) [hereinafter VITA Business Review Letter], *available at* http://www.justice.gov/atr/public/busreview/219380.pdf.

²² On this topic, and others related to licensing, standardization, and antitrust, see Gerald F. Masoudi, Deputy Assistant Attorney Gen., U.S. Dep't of Justice, Efficiency in Analysis of Antitrust, Standard Setting, and Intellectual Property (Jan. 18, 2007), *available at* http://www.justice.gov/atr/public/speeches/220972 htm.

²³ IP2 REPORT, *supra* note 14.

royalty rates and most restrictive licensing terms for essential patents.²⁴ Such a design can be quite desirable because it preserves the possibility of firms competing down from that ceiling in their bilateral negotiations, as long as the patent-holder continues to abide by any other licensing commitments—for example, a commitment to license on non-discriminatory terms. It also provides more clarity than a more general RAND obligation. Thus, although we will be very sensitive to the details of individual cases and the possibility that standard setting rules can be used in exclusionary ways or as a cover for price fixing, we are also sensitive to the fact that negotiations over licensing terms between patent holders and other members of SSOs may best approximate the ideal of fully-informed, up-front negotiations between patent holders and potential implementers. We are also mindful that competition at this stage—to get into the standard—can help drive down licensing costs for innovators and, ultimately, for consumers.

In articulating clear rules regarding disclosure of licensing terms and remedies for breach of those terms, private SSOs also need to balance the incentives of patent holders to participate in the process at all. Some organizations may choose to offer participants more flexibility rather than strict rules, and to assume the risks of doing so. Standard setting organizations must seek balanced rules that are neither too onerous nor too punitive of unintentional mistakes because unbalanced rules will risk chilling participation. The costs of searching through extensive portfolios for relevant patents can be high, and if the costs of making a mistake are too severe, some patent holders may simply choose to abstain from the standards process entirely. We should not overstate this risk, but it bears noting that chilling efficient standards development activity represents a real social loss that belongs on the ledger.

²⁴ VITA Business Review Letter, *supra* note 19; *see also* Erica S. Mintzer & Logan M. Breed, *How to Keep the Fox Out of the Henhouse: Monopolization in the Context of Standard-Setting Organizations*, 19 INETLL. PROP. & TECH. L.J. 5, 5 (2007).

While much of this discussion concerns activity that is predominantly private, let me close with a few quick points about how the government can play a role. First, we should acknowledge the reality that standard-setting bodies predominantly consist of technology sellers and buyers, and that they may not themselves have an incentive to guarantee that the returns of standard setting are passed on to final consumers.²⁵ In an ideal system, competition ensures that this pass-through occurs regardless, but the Antitrust Division has a role to play in making sure that the rules actually adopted by private bodies are consistent with competition and consumer welfare. Again, that role should—and will—be fulfilled through the kind of careful and considered articulation of legal standards that does not chill legitimate and efficient standards development activity. Yet it does require thoughtful consideration and active analysis, and that is what I can promise from the Division.

Second, governmental bodies should be aware that government standards can be a barrier to free trade or an opportunity for rent-seeking behavior. As the Office of the United States Trade Representative (USTR) very clearly articulated in its 2010 Report on Technical Barriers to Trade, ²⁶ "standards-related measures that are non-transparent, discriminatory, or otherwise unwarranted can act as significant barriers." This goes beyond interoperability standards, and is true whether or not intellectual property is involved. Indeed, although standards have a host of legitimate uses, they can be used to make it difficult or impossible for imported products to compete with local supply, sometimes excluding superior goods from reaching local markets to the detriment of consumers. In its report, the USTR concluded that certain foreign standards

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²⁵ See Farrell, supra note 18.

²⁶ OFFICE OF THE U.S. TRADE REPRESENTATIVE, REPORT ON TECHNICAL BARRIERS TO TRADE (2010), *available at* http://www.ustr.gov/sites/default/files/REPORT%20ON%20TECHNICAL%20BARRIERS%20TO%20TRADE%20FINALTO%20PRINTER%2025Mar09.pdf.

²⁷ *Id.* at 5.

have increased costs to U.S. firms and served as a barrier to U.S. exports. Where possible, both domestic and international standards should be designed to facilitate competition from a wide array of producers, not to stifle it. It is thus essential that standards and the conformity assessment procedures used to ensure compliance are transparent and non-discriminatory.

Finally, government has a role to play as a guide and facilitator of conversation.

Voluntary, consensus-based standard setting by private organizations has been hugely successful. I hope that with efforts like today's, government can help in the evaluation of how to set standards in the most productive manner. In addition, we encourage SSOs to continue using the Division's business review process as they consider new models and participation rules. The bulk of the experimentation and the trial and error work has been private, but by bringing those skilled in this art together, it is my hope that government can help foster progress in the science—or, perhaps, the art—of standard setting itself.

B. Injunctions

The second area I'd like to touch upon today is injunctions and the important role they play in patent infringement cases. As noted in the Government's *amicus* brief in *eBay v*.

MercExchange, "because the grant or denial of patent injunctions may directly affect competition and innovation in the marketplace, this [issue] implicates questions of core concern to both the Federal Trade Commission and the Antitrust Division of the United States

Department of Justice." Overly broad injunctive relief can produce abuses that severely impair competition and exacerbate problems of hold-up and patent thickets.

We recognize, of course, that injunctions are part of what makes intellectual property rights enforceable in much the same way as traditional property rights. The essence of a

²⁸ Brief for the United States as Amicus Curiae Supporting Respondent, eBay Inc. v. MercExchange, LLC, 547 U.S. 388 (2006) (No. 05-130), *available at* http://www.justice.gov/atr/cases/f215700/215790.pdf.

property right is the power to exclude, not just the power to recover damages in lieu of royalties.

Thus, in the context of well-informed, *up-front* negotiations, it generally makes sense for a patent holder to be able to rely on the courts to issue an injunction and enforce its right not to deal.

When removed from the context of up-front negotiation, however, injunctions may sometimes make less sense. For example, because of delays and uncertainties in our system for creating intellectual property rights, the "negotiation" frequently comes too late—after the costs of switching to alternatives have grown. As in the case of standard setting, this eleventh-hour negotiation may provide the rights holder with excessive bargaining power that is not derived from, or commensurate with, the value of its invention. This is not to say that switching costs should be the only consideration. Instead, as discussed in *eBay*, a balancing of equities and hardships is warranted. Many factors can play into this calculus, including whether the technology being infringed is a component of a larger product or system, whether the rights holder competes with the infringer, and whether an injunction is in the public interest.

Yet the law of injunctions in patent cases must be flexible and sensitive to the concern that opportunistic rights holders can exploit the threat of an injunction to extract royalties well in excess of the value of their intellectual property. There seems to be an increase in so-called "trolling" claims that only surface well after an innovator has built the technology into a new product, and at a point when significant resources have already been sunk into employing that technology. If the patent holder can, *at this late point*, credibly threaten to block an innovator's entire project because the patent holder has injunction power as to a small but essential piece, the patent holder may be able to appropriate much more than the value of the invention. In fact, with the threat of an injunction, the patent holder's reward can be determined not by the marginal benefit of its invention over the alternatives, but by its ability to "hold-up" an implementer with

an injunction threat. Because this threat may discourage some innovators from creating new products or implementing new technologies at all, it can quite literally hold up the pace of technological progress.

This kind of unearned monopoly power may not always be susceptible to antitrust attack. Yet it is a real competition problem of the kind that the Antitrust Division faces every day. We will watch developments in this area closely, attentive to actions that appear designed to create or preserve unearned monopoly power.

As I just noted, and as the Supreme Court's rule in *eBay* makes clear,²⁹ injunctions are frequently appropriate and a balancing of the equities in particular cases will lead to different outcomes. Yet, as Justice Kennedy made clear in his *eBay* concurrence, such flexibility is essential if hold-up is to be avoided.³⁰ Remedies must work with other parts of the patent system to align the rewards of the invention with the value of the invention. As discussed earlier, over-or under-compensation can distort the competitive process, and negatively affect innovation.

Among the issues that our panelists will be discussing today is whether the same, flexible approach to injunctions is actually available in all forums; whether, instead, certain venues are more likely to provide for the kind of injunctions that can facilitate hold-up; and what the consequences of divergent approaches in different forums might be. I look forward to hearing their thoughts.

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The challenges that I have just discussed—and that our panelists will be discussing today—are obviously complicated, and I have no illusions about our ability to cover them all, let

²⁹ eBay v. MercExchange, 547 U.S. 388 (2006).

³⁰ Id. at 395-97 (Kennedy, J. concurring).

alone *solve* them. Yet I hope that today's session furthers the examination process and fosters an ongoing conversation about how best to create and preserve appropriate incentives for invention and innovation in our dynamic economy. That is a discussion that I, along with the entire Antitrust Division, am happy to be a part of. Although these are not easy issues, I am confident that by promoting an ongoing dialogue among our agencies and patent and antitrust legal communities, we can further our common goals.