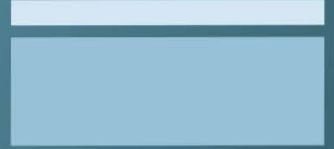
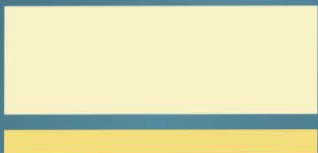


THE EVOLVING IP MARKETPLACE

ALIGNING PATENT NOTICE AND REMEDIES WITH COMPETITION

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FEDERAL TRADE COMMISSION

THE EVOLVING IP MARKETPLACE:
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WITH COMPETITION

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INTRODUCTION

Innovation benefits consumers through the development of new products, processes and services that improve lives and address unmet needs. It is key to meeting society's greatest challenges in areas as diverse as energy production, communications and health care, and it is essential to sustained economic growth and global competitiveness. But innovation is a complex process. It involves a series of steps from idea to invention through development to commercialization, each of which can be expensive, risky and unpredictable.

The goal of the patent system is to promote innovation in the face of that expense and risk. It does so by giving patent owners the right to exclude others from making, using or selling a patented invention for 20 years. By preventing copying that might otherwise drive down prices, the patent system allows innovators to recoup their investment in research and development (R&D). The patent system plays a critical role in promoting innovation across industries from biotechnology to nanotechnology, and by entities from large corporations to independent inventors.

The patent system's exclusive right promotes innovation, but so too does competition, which drives firms to produce new products and services in the hope of obtaining an advantage in the market. The patent system and the antitrust laws share the fundamental goals of enhancing consumer welfare and promoting innovation. The legal doctrines that most successfully accomplish those goals align the patent system and competition policy so that one does not undermine the effectiveness of the other. One important aspect of that alignment is antitrust enforcement that recognizes the incentives to innovate created by the patent system. Condemning efficient, legitimate uses of patent rights can undermine those incentives and harm consumers. For that reason, the guidance of the 2007 FTC/DOJ Report on IP and Antitrust focused on incorporating careful consideration of the benefits of patent rights into antitrust analysis.¹ Another aspect of that alignment is a proper balance between exclusivity and competition. Invalid or overbroad patents disrupt that balance by discouraging follow-on innovation, preventing competition, and raising prices through unnecessary licensing and litigation. For that reason, many of the recommendations in the 2003 FTC IP Report focused on improving patent quality as a means of balancing exclusivity and competition.²

¹FED. TRADE COMM'N & DEPT. OF JUSTICE ANTITRUST DIV., ANTITRUST ENFORCEMENT AND INTELLECTUAL PROPERTY RIGHTS: PROMOTING INNOVATION AND COMPETITION (April 2007), *available at* <http://www.ftc.gov/reports/innovation/P040101PromotingInnovationandCompetitionrpt0704.pdf>

²FED. TRADE COMM'N, TO PROMOTE INNOVATION: THE PROPER BALANCE OF COMPETITION AND PATENT LAW AND POLICY, Exec. Summ., at 1 (Oct. 2003), ("2003 FTC IP Report"), *available at* <http://ftc.gov/os/2003/10/innovationrpt.pdf>.

Two areas of patent law beyond patent quality impact how well the patent system and competition policy work together to further their common goal of enhancing consumer welfare. The first is notice – how well a patent informs the public of what technology is protected. The second is remedies – judicially awarded damages and injunctions following a court finding of patent infringement. The impact of notice and remedies on the alignment of the patent system with competition policy results from the operation of relevant legal rules and practices on competition among patented technologies.

A patent does not necessarily confer market power because patented inventions often compete with alternative technologies. Patentees can earn rewards in the market by selling a patented product themselves or by licensing the patent for others to practice. In either case, the market reward earned by the patentee, and the economic value of the invention, will depend upon the extent to which consumers prefer the patented technology over alternatives. A patent covering a highly valued, disruptive technology can confer market power and generate significant market rewards. More often, competition from acceptable alternatives will limit the market reward that a patent owner receives.

Competition among patented technologies at every stage of the innovation process helps generate lower prices, more choices and higher quality products for consumers. Products compete to be purchased by consumers. Developed technologies compete in technology markets to be chosen for incorporation into products. Early-stage technologies compete for development funding. By aligning the patentee's market reward with consumer preferences, competition in product and technology markets encourages investment in those inventions that are more likely to be valued by consumers. When patent law facilitates and does not distort this competition, it aligns with competition policy to the benefit of consumers.

FTC Hearings on the Evolving IP Marketplace

To explore the interplay of notice, remedies, innovation and competition, the FTC held eight days of hearings beginning December 2008. In addition, the FTC cosponsored a workshop with the Patent and Trademark Office (PTO) and the Department of Justice in May 2010, on the intersection of patent policy and competition policy. The hearings and workshop involved more than 140 participants, including business representatives from large and small firms, start-ups and the independent inventor community, leading patent practitioners, economists, and patent law scholars. The FTC also received over 50 written submissions.³ This report is based on testimony, written submissions and independent research.

The report begins by examining the role of technology markets and patent markets in innovation today. Those roles have evolved in recent years in ways that heighten the importance of patent notice and remedies to competition among technologies. As Chapter 1 discusses, collaboration and technology transfer have become increasingly important pathways to

³Appendices C-E list participants, comments received and topics examined at the hearings and workshop. Transcripts and written submissions are available at <http://www.ftc.gov/bc/workshops/ipmarketplace/>.

innovation with significant benefits for consumers. Patents play an important role in supporting these technology markets, and undermining that role would harm innovation. At the same time, as described in Chapter 2, we see increasing activity and complexity of business models in markets for patents that do not involve technology transfer. In these markets, patents are bought, sold and licensed as assets whose value is based on their ability to extract rents from manufacturers already using the patented technology. This activity risks distorting competition among technologies and deterring innovation, especially when driven by poor patent notice and remedies that do not align with the economic value of the patented invention. Chapters 3 through 8 make recommendations for adjustments to the legal rules and practices governing notice and remedies to better align them with competition policy without undermining patent law's support for innovation.

How Patent Notice Affects Innovation and Competition

Clear notice of what a patent covers can increase innovation by encouraging collaboration, technology transfer and design-around. Clearly defined patent rights can help companies identify and license technology they wish to develop or adopt. Poor patent notice can undermine the patent system's ability to fulfill this role, however. Potential collaborators or licensees may not find relevant patents, or they may hesitate to invest in technology when the scope of patent protection is unclear.

Notice affects competition among technologies at every stage of the R&D process. The ability to identify and assess the scope of relevant patents at an early stage can be critical for firms considering making investments in developing and commercializing an innovative product. They may unnecessarily elect not to pursue a R&D effort when the scope of coverage is unclear if they fear that another firm has blocking patents. Such decisions deter and lessen innovation and competition among technologies that might otherwise have been created. Poor patent notice also hinders competition by forcing firms to design products with incomplete knowledge of the cost and availability of different technologies. Technologies compete to be incorporated into products. But that competition is distorted if designers cannot discern in advance which technologies carry the cost of patent royalties and negotiate those royalties before they incur sunk costs based on the patented technology.

When firms choose technologies and market products despite an uncertain patent landscape, they risk post-launch patent assertions and litigation. As described in Chapters 2 and 3, resolving these claims often involves expensive litigation, which diverts resources and disrupts business operations. If the firm pays royalties, costs may increase and consumers may be deprived of the full benefit of competition among technologies.

Firms can invest in patent clearance activities – attempts to identify patents that might read on their planned activities – to reduce uncertainty and avoid later infringement allegations. Such efforts are often expensive. In the information technology (IT) industries, where products consist of many components covered by numerous patents, firms may not reliably identify all relevant patents. When they do identify patent risks, firms may unnecessarily design around

those risks or take a license due to unclear patent scope. To the extent that patent clearance and product design are made more expensive by poor notice, they impose unnecessary costs.

As discussed in Chapter 3, a firm attempting patent clearance must undertake three activities. One is claim interpretation. To fulfill their notice function, patent claims must clearly delineate the scope of patent rights. A second is predicting what claims might emerge from pending patent applications. A third is identifying potentially relevant patents or applications. Effective patent notice supporting each one of these activities implicates multiple legal rules and practices, including claim interpretation, specification requirements and application examination. Chapter 3 examines those rules and practices and makes recommendations for improving patent notice. Doing so would better align patent law and competition policy by allowing competition among technologies to function more effectively.

How Patent Remedies Affect Innovation and Competition

Effective patent remedies are critical to the patent system's incentives to innovate. Patent infringement interferes with a patentee's ability to realize its patent's value in the marketplace. Remedies protect the ability of patentees to earn returns in the market by stopping and deterring infringement in the case of injunctions, and by making patentees whole through damage awards when infringement has occurred. As explained in Chapter 4, to perform that role, patent remedies should seek to replicate the market reward that the patent holder would have earned absent infringement.

Compensatory damage awards that either under or overcompensate patentees for infringement compared to the market can have detrimental effects on innovation and competition. Undercompensation can undermine the patent system's incentives to innovate. This could impair investment in R&D and result in fewer new, innovative products and services. Damage awards that exceed what the invention could have earned absent infringement when competing with alternatives can lead to higher prices. Consumers are effectively deprived of the benefit of competition among technologies. Overcompensation can also encourage speculation in patent rights and litigation. As discussed in Chapter 2, this can deter innovation by raising the costs and increasing the risks of investment. Moreover, damages law that systematically overcompensates certain types of inventions can over-incentivize invention and patenting in that field. This outcome can disrupt the market's ability to allocate R&D resources to those areas most likely to generate the products most valued by consumers.

Calculating patent damages that replicate the market reward for the invention by constructing the world but for infringement can be a very difficult task for litigants and factfinders. Over the years, courts have developed an extensive jurisprudence surrounding the calculation of patent damages. While the fundamental principles of damages law are sound, some legal rules and practices are not well-grounded in economic analysis. For instance, some rules do not reflect a full appreciation of the appropriate role of competition from non-infringing alternatives in determining patent damages. Trial practice has allowed ill-supported damages testimony into evidence. Chapters 4 through 7 develop an economically grounded approach to

calculating patent damages and recommend changes to better align patent law and competition policy by producing damage awards that more closely replicate the market value of the invention.

Permanent injunctions prohibiting future infringement play a critical role in protecting the exclusivity that allows a patentee to reap the market reward for its invention. Following a finding of infringement, an injunction preserves the patentee's exclusivity going forward. Just as importantly, the threat of an injunction creates a significant deterrent to infringement, which allows patentees to obtain the full market reward for the invention, supported by an exclusive market position, without costly litigation.

Under some circumstances, however, the threat of an injunction can lead an infringer to pay higher royalties than the patentee could have obtained in a competitive technology market. At the time a manufacturer faces an infringement allegation, switching to an alternative technology may be very expensive if it has sunk costs in production using the patented technology. That may be true even if choosing the alternative earlier would have entailed little additional cost. If so, the patentee can use the threat of an injunction to obtain royalties covering not only the market value of the patented invention, but also a portion of the costs that the infringer would incur if it were enjoined and had to switch. This higher royalty based on switching costs is called the "hold-up" value of the patent. Patent hold-up can overcompensate patentees, raise prices to consumers who lose the benefits of competition among technologies, and deter innovation by manufacturers facing the risk of hold-up.

One challenge for injunction analysis is to protect the critical importance of patent exclusivity for innovation while recognizing that, in some instances, patent hold-up can undermine innovation and harm consumers. Chapter 8 proposes an approach that balances these concerns within the equitable analysis required by *eBay v. MercExchange*.⁴ The proposed approach aligns patent law and competition policy by preventing hold-up based on sunk costs when innovation would not be harmed.

⁴*eBay, Inc. v. MercExchange, LLC*, 547 U.S. 388 (2006).