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America Invents Act's Prior User Defense: Lessons from Global Patent Regimes and Legislative History

Aleksey Khamin *

INTRODUCTION

The America Invents Act (“AIA”)¹ drastically changed both the U.S. patent system and the landscape of the U.S. intellectual property regime. Several provisions of the Act are likely to make trade secret protection more attractive.² One such provision, the “prior user defense,”³ which exists in some form in most patent systems around the world, protects a secret prior use of an invention from the infringement claims of a later patentee.⁴ The AIA implementation of this defense, codified as 35 U.S.C. § 273 (effective September 16, 2011), created numerous uncertainties about the provision’s elements and scope.⁵ The 2011 adoption of the AIA prior user rights provision was shaped by two decades of academic discourse⁶ and several years of heated political debates.⁷ Unlike the

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¹ Pub. L. 112-29, 125 Stat. 284 (2011) (codified in scattered sections of Title 35 of the U.S. Code).

² David S. Almeling, *Seven Reasons Why Trade Secrets Are Increasingly Important*, 27 BERKELEY TECH. L.J. 1091, 1113 (2012).

³ “First user right,” “prior user right” and “prior user defense” are used interchangeably in patent law and in this article. The AIA provides for a full legal defense of a prior user of an invention against an infringement claim by a later patentee of the invention. 35 U.S.C. § 273(a) (2012).

⁴ *E.g.*, “This new defense will ensure that the first inventor of a new process, or of a product used in a manufacturing process, can continue to use the invention in a commercial process even if a subsequent inventor later patents the idea.” 157 CONG. REC. S5319 (daily ed. Sept. 6, 2011) (statement of Sen. Kyl).

⁵ THE UNITED STATES PATENT AND TRADEMARK OFFICE (Nov. 8, 2011), http://www.uspto.gov/aia_implementation/pur-2011nov08-jipa.pdf (letter from Kenji Koumoto, President of Japan Intellectual Property Association, to David J. Kappos, Director of the USPTO, including a sample list of issues to be clarified).

⁶ *See, e.g.*, Gary L. Griswold & F. Andrew Ubel, *Prior User Rights—A Necessary Part of A First-to-File System*, 26 J. MARSHALL L. REV. 567, 592 (1993); Keith M. Kupferschmid, *Prior User Rights: The Inventor’s Lottery Ticket*, 21 AIPLA Q.J. 213 (1993); F. Andrew Ubel, *Who’s on First?—The*

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debates of the 1990s on the proper contours of the defense, the post-AIA discussion shifted to the interpretation and impact of the new provision.⁸ This Article provides a detailed analysis of this novel AIA provision in the context of legislative history and global experience, and argues for the clarification and expansive interpretation of several ambiguous terms.

Part I of this Article highlights the complex relationship between patent and trade secret protection and discusses how the prior user defense may contribute to a shift of that delicate balance. Part II provides the international context for prior user rights and analyzes the contrasting experiences of Japan and the United Kingdom. Part III summarizes the limited history of prior user rights in the United States and delves into the complex legislative history of the provision. Part IV analyzes key interpretive problems in the text of the provision and suggests solutions. Part V suggests the possible impact of the new defense on several innovation-generating communities, including corporations, universities, and individual inventors. The Article concludes that while the current AIA prior user defense provision creates potential advantages for corporations and universities, it may be detrimental to the individual inventor. To remedy this problem, this Article advocates an expansive interpretation of key terms of the provision, such as “commercial use in the U.S.”

I. INVENTOR’S TRILEMMA: PATENTS, TRADE SECRETS, OR THE PUBLIC DOMAIN

Every inventor must decide what legal strategies he or she will use to protect his or her inventions. Usually, there are three mutually exclusive options:⁹ patent,

Trade Secret Prior User or A Subsequent Patentee, 76 J. PAT. & TRADEMARK OFF. SOC’Y 401, 413 (1994); Paul R. Morico, *Are Prior User Rights Consistent with Federal Patent Policy?: The U.S. Considers Legislation to Adopt Prior User Rights*, 78 J. PAT. & TRADEMARK OFF. SOC’Y 572, 580 (1996); Leslie M. Hill, *Prior User Defense: The Road to Hell Is Paved with Good and Bad Intentions*, 10 FED. CIRCUIT B.J. 513, 548 (2001).

⁷ See, e.g., Gene Quinn, *Patent Reform: Expanding Prior User Rights Is a Bad Idea*, IPWATCHDOG (Mar. 28, 2011, 9:23 PM), <http://www.ipwatchdog.com/2011/03/28/patent-reform-expanded-prior-users-rights-is-a-bad-idea/id=16026>; Gene Quinn, *Sensenbrenner to Kappos: Prior User Rights Is Poison Pill*, IPWATCHDOG (Mar. 30, 2011, 2:10 PM), <http://www.ipwatchdog.com/2011/03/30/sensenbrenner-to-kappos-prior-user-rights-is-poison-pill/id=16082>.

⁸ Jacob Neu, *Patent Prior User Rights: What’s the Fuss?*, 66 VAND. L. REV. EN BANC 1, 2 (2013) (suggesting that the current version of prior user defense is not a significant incentive to keep an invention secret).

⁹ JOHN R. THOMAS, CONG. RESEARCH SERV., R41391, THE ROLE OF TRADE SECRETS IN INNOVATION POLICY 9 (2014).

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trade secret, and public domain.¹⁰ Patent is considered to be the strongest protection because it grants the right to exclude, specifically, the right to prosecute infringers.¹¹ However, patent protection has significant drawbacks: it is expensive to obtain and maintain,¹² it must be acquired in each country of operation,¹³ its term is limited to 20 years,¹⁴ and not every invention is patentable.¹⁵ Furthermore, in an infringement suit, a defendant is likely to challenge the scope and validity of a patent; a successful challenge may limit or even invalidate the patent, and the average rate of such invalidation is high.¹⁶ On the other hand, trade secret protection has significant advantages; it can cover virtually any subject matter and is not limited by the duration of its term and geography.¹⁷ Trade secret litigation is less expensive than patent litigation.¹⁸ However, if another party rediscovers or reverse engineers the trade secret through legitimate means, the trade secret loses most of its value for purposes of intellectual property (“IP”) protection.¹⁹ Patents

¹⁰ Placing an invention in the public domain, paradoxically, is a form of strategic invention protection because it prevents others from obtaining patents on the invention and from claiming it as a trade secret.

¹¹ 35 U.S.C. § 271 (2012) (right to exclude); 35 U.S.C. § 271 (2012) (elements of infringement); *See, e.g.*, Andrew Beckerman-Rodau, *The Choice Between Patent Protection and Trade Secret Protection: A Legal and Business Decision*, 84 J. PAT. & TRADEMARK OFF. SOC’Y 371, 387 (2002).

¹² Bronwyn Hall et al., *The Choice Between Formal and Informal Intellectual Property: A Literature Review*, 26 NAT’L BUREAU OF ECON. RESEARCH, No. 17983, 2012.

¹³ MARTIN J. ADELMAN ET AL., CASES AND MATERIALS ON PATENT LAW 54–55 (3d ed. 2003).

¹⁴ 35 U.S.C. § 154(a) (2012).

¹⁵ 35 U.S.C. § 101 (2012) (limiting patentable subject matter); *see also* Beckerman-Rodau, *supra* note 11, at 383–86.

¹⁶ Mark A. Lemley, *Ignoring Patents*, 2008 MICH. ST. L. REV. 19, 27 (2008) (suggesting that the majority of litigated patents are invalid).

¹⁷ “Trade secret law reaches into a number of corners patent law cannot. The definition of trade secret (valuable information) is broader than the definition of patentable subject matter, for example, protecting business plans, customer lists, and so-called ‘negative know-how’ against use by others.” Mark A. Lemley, *The Surprising Virtues of Treating Trade Secrets as IP Rights*, 61 STAN. L. REV. 311, 331 (2008).

¹⁸ *See, e.g.*, 3 ROGER MILGRIM & ERIC BENSON, MILGRIM ON LICENSING § 18.42 (2014) (“patent litigation is the most expensive form of litigation, surpassing even so notoriously complex and expensive a form as antitrust litigation.”).

¹⁹ WILLIAM M. LANDES & RICHARD A. POSNER, THE ECONOMIC STRUCTURE OF INTELLECTUAL PROPERTY LAW 371 (2003) (“Not only does patent law solve problems of trade secret law, but trade secret law plugs gaps and softens rigidities in patent law.”); *see also* *Kewanee Oil v. Bicrom Corp.*, 416 U.S. 470, 493 (1974) (holding that federal patent system and state trade secret law are complementary to each other).

and trade secrets are often viewed as two complementary systems for protecting inventions.²⁰

Before the adoption of the AIA, these three options (patent, trade secret, and public domain) were, for the most part, mutually exclusive in the United States. Innovations disclosed in patent applications or released to the public domain were not eligible for trade secret protection. Innovators who commercially exploited their inventions for over one year, without disclosing them in a patent application, normally could not obtain a patent.²¹ Furthermore, such innovators faced the risk that another inventor could obtain a patent on the invention they had been using and subsequently institute an infringement action, enjoining the prior secret user from practicing the invention.²²

However, the adoption of the AIA is likely to make trade secret protection a more attractive option than before. As the sponsors of the AIA intended, the prior user defense is designed not only to provide for fairness to a prior inventor, but also to boost the rights of a trade secret holder against the rights of a later patentee,²³ at least in capital intensive industries.²⁴

The exact magnitude of the likely shift towards trade secret protection depends on a host of invention-specific factors, including the adoption of other relevant legislative acts,²⁵ the industry type,²⁶ the lifetime of the product or

²⁰ Karl F. Jorda, *Patent and Trade Secret Complementariness: An Unsuspected Synergy*, 48 WASHBURN L.J. 1, 19 (2008) (“Patents and trade secrets are not mutually exclusive but are highly complementary and mutually reinforcing. . . . In fact, trade secrets are the first line of defense: they precede patents, accompany patents, and follow patents.”).

²¹ See 35 U.S.C. § 102(b) (2000).

²² One commentator suggests, “[in the United States] a later patentee has never enjoined a trade secret owner.” Jorda, *supra* note 20, at 27. However, there is no guarantee that this cannot happen, especially after the change to first-to-file system. The commentator does not rely on this observation to protect the first inventor in the future. Accordingly, he argues for expansion of the prior user rights in the United States to match prior user rights abroad.

²³ See, e.g., 157 CONG. REC. S5319 (daily ed. Sept. 16, 2011) (statement of Sen. Kyl).

²⁴ See 157 CONG. REC. E1219 (daily ed. June 28, 2011) (statement of Rep. Smith).

²⁵ THOMAS, *supra* note 9, at 14–15 (reviewing several possible legislative developments that may boost trade secret protection).

²⁶ In those industries where trade secrets are generally difficult to keep, patents are difficult to obtain and those granted difficult to enforce. In those industries where trade secrets are easier to keep and patents therefore difficult to police, patents covering such art are easier to obtain and enforce. In this way the federal patent laws can be seen to be promoting the disclosure and dissemination of those inventions that might otherwise remain trade secrets, and by encouraging the patenting and therefore the disclosure of such inventions the patent system advances the art. See Daniel C. Munson, *The Patent-Trade Secret Decision: An Industrial Perspective*, 78 J. PAT. & TRADEMARK OFF. SOC’Y 689, 715 (1996).

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technology to be protected, and the ease of reverse engineering.²⁷ Yet the prior user defense has made the trade secret strategy more attractive, at least for internal industrial processes that cannot be easily discovered by an examination of the end product. Not surprisingly, large pharmaceutical companies praised the introduction of the defense,²⁸ in accordance with the results of industrial surveys that consistently show that large corporations prefer to use trade secret as a way of protecting their IP assets.²⁹

II. PRIOR USER RIGHTS: INSIGHTS FROM GLOBAL EXPERIENCE

A. Overview

Although prior user rights, which are usually conceptualized as providing fairness to an earlier inventor in a first-to-file patent system,³⁰ are part of most global patent systems,³¹ their key features, such as the scope and elements of the defense, vary greatly. For instance, in France and Belgium, mere possession of the inventive idea is sufficient to establish prior use.³² However, in other countries,

²⁷ See, e.g., Beckerman-Rodau, *supra* note 11, at 388–92 (suggesting how market life of a product and ease of its reverse engineering influence attractiveness of patent vs. trade secret protection).

²⁸ Letter from Leah Taylor, VP, Intellectual Property, Hospira Inc., to Elizabeth Shaw, United States Patent and Trademark Office (Nov. 8, 2011), available at http://www.uspto.gov/aia_implementation/pur-2011nov08-hospira_inc.pdf [hereinafter Hospira Comments on Prior User Rights].

²⁹ “On average, patents are not the most important mechanism of IP appropriation while secrecy and lead are.” Bronwyn Hall et al., *The Choice Between Formal and Informal Intellectual Property: A Literature Review*, 52 J. ECON. LIT. 1, 22 (2014).

³⁰ “The reason most frequently cited in support of prior user rights in a first-inventor-to-file regime is ensuring “fairness”—appropriately balancing the equitable interests of the prior user and the patentee.” DAVID J. KAPPOS & TERESA STANEK REA, THE UNITED STATES PATENT & TRADEMARK OFFICE, THE REPORT ON THE PRIOR USER RIGHTS DEFENSE 50 (2012) [hereinafter USPTO REPORT].

³¹

[T]here is no question that prior user rights are unanimously recognized in principle as just and desirable in a first-to-file system. The rights are argued to be justified on grounds of both fairness and efficiency. They prevent the destruction of existing investments, which is in the public interest, and they give a measure of protection to the vested interests of those who have learned nothing from the disclosure of the invention in the patent application.

Sylvie Strobel, *Prior User Rights: Introductory Comments*, 35 IDEA 207, 208 (1994).

³² PATRICK VAN EECHE ET AL., MONITORING AND ANALYSIS OF TECHNOLOGY TRANSFER AND INTELLECTUAL PROPERTY REGIMES AND THEIR USE 104–05 (2009), available at http://ec.europa.eu/invest-in-research/pdf/download_en/monitoring_and_analysis_of_technology_transfer_and_intellectual_property_regimes_and_their_use.pdf.

active commercial use of the invention is required.³³ With respect to the duration of prior use, the Italian Patent Act requires at least one year of such use before the effective filing date of the patent,³⁴ whereas most other systems simply require use before the filing date.

Since the meaning of key terms, such as “use,” “preparation for business,” or “commercial use,” is often not statutorily defined, judicial interpretation of a prior use provision often determines the shape and scope of the defense. For instance, in Japan, use of the defense is quite common, while in the United Kingdom, use of a defense based on a similarly worded statute is rare.³⁵ Comparing the use of the prior user defense in these two industrialized countries with similar statutes illustrates this point, demonstrates the nature of prior user cases, and poses questions that have yet to be resolved in the United States.

B. Japan: Robust Prior User Rights

Codified in § 79 of the Japanese Patent Act,³⁶ prior user rights have been a part of the Japanese patent system since 1909.³⁷ A recent survey of Japanese corporations shows a robust and growing use of the defense³⁸ that accelerated after the Supreme Court of Japan clarified its scope in the 1986 landmark case *Walking*

³³ *Id.* at 100–02.

³⁴ *Id.* at 98.

³⁵ Letter from Jason Albert, Associate General Counsel, Microsoft Corp., United States Patent and Trademark Office (Nov. 8, 2011), *available at* http://www.uspto.gov/aia_implementation/pur-2011nov08-microsoft_corporation.pdf [hereinafter Comments of Microsoft Corp.].

³⁶

A person who, without knowledge of the content of an invention claimed in a patent application, made an invention identical to said invention, or a person who, without knowledge of the content of an invention claimed in a patent application, learned the invention from a person who made an invention identical to said invention and has been working the invention or preparing for the working of the invention in Japan at the time of the filing of the patent application, shall have a non-exclusive license on the patent right, only to the extent of the invention and the purpose of such business worked or prepared.

Naoki Yoshida, *Lessons We Can Learn from Prior User Right in Japan*, AIPLA (2012), http://www.aipla.org/committees/committee_pages/IP-Practice-in-Japan/Committee%20Documents/2012%20MWI%20Pre-Meeting%20Seminar/AIPLA%20MWI%202012%20Presentation%20by%20AIPPI%20Naoki%20Yoshida.pdf (quoting Japanese Patent Law, art. 79).

³⁷ Hiroo Maeda, *New Framework for Protection and Management of Knowledge*, 2006 IIP BULL. 50 (2006), http://www.iip.or.jp/e/e_summary/pdf/detail2005/e17_07.pdf.

³⁸ *Id.* at 52.

Beam Type Heating.³⁹ In that case, the defendant possessed blueprints of a heating furnace and used them in several contract bids.⁴⁰ Even though the initial bid, presented around March 31, 1966, was unsuccessful, the Supreme Court held that possession of the specifications of a product and their use in commercial negotiations is sufficient to establish the “preparation for business” element of the prior user defense, and the date of the bid can be used to establish the date of the invention’s prior use.⁴¹ The court further held that the prior user is permitted to expand the scope of the use within the bounds of the technical concept embedded in the invention, in other words, that the prior user is not bound by the exact boundaries of the original, pre-patent use.⁴² This expansive judicial interpretation of the elements and scope of the defense likely had a major impact on its use in litigation. The percentage of cases in which the prior user prevailed increased in the aftermath of the case.⁴³ One-third of large Japanese firms, responding to a subsequent survey, reported having used prior user rights either in litigation or settlement negotiation.⁴⁴

Several factors account for the robust use of the prior user defense in Japan. First, this defense has been a part of the Japanese patent system for over a century.⁴⁵ Second, Japanese courts, including the Supreme Court of Japan, articulated expansive and reasonably clear standards for the elements and scope of the defense.⁴⁶ Finally, the Japanese business community is aware of the defense and the applicable standards.⁴⁷ However, the use of prior user rights is not uniform across industries: manufacturers of electronics and electric equipment reported greater use of the rights than pharmaceutical companies.⁴⁸ Notably, protection of proprietary technology from foreign competition is one of the reasons for reliance

³⁹ Saikō Saibansho [Sup. Ct.] Oct. 3, 1986, Hei S61 (O) no. 454, 40 Saikō Saibansho Minji Hanreishū [Minshū] 1068 (Japan).

⁴⁰ *Id.*

⁴¹ *Id.* at 1.

⁴² *Id.* at 2.

⁴³ Maeda, *supra* note 37, at 54.

⁴⁴ *Id.* at 52.

⁴⁵ *Id.* at 50.

⁴⁶ *See id.* at 53–54.

⁴⁷ *Id.* at 52.

⁴⁸ *Id.*

on prior user rights.⁴⁹ This rationale resonates with the concerns that several global corporations voiced during the debates that preceded the passage of the AIA.⁵⁰

C. *United Kingdom: Narrow Judicial Interpretation of Prior User Rights*

The U.K. experience with prior user rights contrasts sharply with that of Japan. There are very few reported U.K. cases in which the defense was utilized,⁵¹ and none in which the defense was successful. The prior user defense was introduced to the U.K. with the enactment of § 64 of the Patent Act of 1977.⁵² On the face of the statute, the scope of the defense appears broad, as it covers not only those who actually practiced the invention, but those who made “effective and serious preparation to do such an act.”⁵³ However, narrow judicial interpretation of that crucial term has proved decisive: the defense has failed in every one of the few reported cases.

⁴⁹ *See id.* at 50, 57.

⁵⁰ *See, e.g., infra* notes 113, 114, 118.

⁵¹ Comments of Microsoft Corp., *supra* note 35.

⁵²

64. Right to continue use begun before priority date.
- (1) Where a patent is granted for an invention, a person who in the United Kingdom before the priority date of the invention does in good faith an act which would constitute an infringement of the patent if it were in force, or makes in good faith effective and serious preparations to do such an act, shall have the rights conferred by subsection (2) below.
- (2) Any such person shall have the right—
- (a) to continue to do or, as the case may be, to do that act himself; and
- (b) if it was done or preparations had been made to do it in the course of a business, to assign the right to do it or to transmit that right on his death or, in the case of a body corporate on its dissolution, to any person who acquires that part of the business in the course of which the act was done or preparations had been made to do it, or to authorise it to be done by any partners of his for the time being in that business; and the doing of that act by virtue of this subsection shall not amount to an infringement of the patent concerned.
- (3) The rights mentioned in subsection (2) above shall not include the right to grant a licence to any person to do an act so mentioned.
- (4) Where a patented product is disposed of by any person to another in exercise of a right conferred by subsection (2) above, that other and any person claiming through him shall be entitled to deal with the product in the same way as if it had been disposed of by a sole registered proprietor.

Patents Act 1977, 1977, c.37, § 64.

⁵³ *Id.* § 64(1)(b).

In the first reported case, *Helitune Ltd. v. Stewart Hughes Ltd.*,⁵⁴ the trial court considered what constitutes “effective and serious preparation” and set a demanding standard. In that case, Helitune obtained a patent on an active tracker, a device for tracking imbalance of helicopter blades, and sued the defendant for manufacturing and selling infringing devices.⁵⁵ The defendant showed that it produced a working prototype of the active tracker and made plans for its mass production before the Helitune patent’s priority date.⁵⁶ The court held that possession of a working prototype was insufficient to establish the “effective preparation” element and that to claim the defense, one must be very close to commercial sale,⁵⁷ although the court did not explain how close. This opinion announced a demanding and uncertain standard for what the court called “statutory license”⁵⁸—the prior user defense.

In a later case, *Lubrizol Co. v. Esso Petroleum Co.*,⁵⁹ an appellate court affirmed the high threshold for the effective preparation prong of the prior use defense. Lubrizol sued the Exxon/Esso family of companies for infringement of its patented lubricant.⁶⁰ Exxon asserted that before the priority date of the patent, it imported the lubricant into the United Kingdom, tested it, and made substantial preparations for building a production plant.⁶¹ However, the court held that those activities were not sufficient to satisfy the “effective preparation test,” which it defined vaguely as “preparations . . . so advanced as to be about to result in the infringing act being done.”⁶²

In *Lubrizol*, the court addressed another important question: whether the prior user can expand the scope of its use into other products after the patent’s priority date. Judge Aldous ruled that the prior user essentially could not expand the use, because “the right given by . . . section 64 [of Patents Act] cannot be a right to manufacture any product nor a right to expand into other products.”⁶³ In a later

⁵⁴ [1991] F.S.R. 171 (Eng.).

⁵⁵ *Id.* at 172.

⁵⁶ *Id.* at 206–07.

⁵⁷ *Id.* at 208.

⁵⁸ *Id.* at 206.

⁵⁹ [1998] R.P.C. 727 (CA).

⁶⁰ *Id.* at 727–28.

⁶¹ *Id.* at 739, 770.

⁶² *Id.* at 770.

⁶³ However, the judge left room for some flexibility or rather uncertainty, “I do not believe that identity [of pre- and post-patent products of prior user] is required.” *Id.*

case, *Forticere Ltd. v. Lafarge Roofing Ltd.*,⁶⁴ a lower court followed the *Lubrizol* opinion⁶⁵ and held that the prior user was effectively locked into the uses and products that existed as of the patent priority date.⁶⁶

Unlike in Japan, the U.K. prior user defense is of little use. Several factors explain this outcome, including judicial imposition of a vague yet demanding standard on the effective preparation prong and the permissible scope of expansion or modification of use, which remains an unresolved issue. Comparing the experiences of Japan and the U.K. not only highlights key issues in implementing the prior user defense, but also illustrates the pivotal role of judicial interpretation of the statute.

III. HISTORY OF THE PRIOR USER DEFENSE IN THE UNITED STATES

A. *Prior User Rights Debates Before Adoption of the AIA*

The path of the prior user rights defense provision into the final text of the AIA was long and convoluted,⁶⁷ even though some form of the defense is a part of many foreign first-to-file patent systems.⁶⁸ Significant debate over the first inventor rights took place in the early 1990s,⁶⁹ in the context of movement towards harmonization of the U.S. patent system with major foreign systems, including the

⁶⁴ [2005] EWHC 3024 (Ch).

⁶⁵ Lafarge produced evidence that in 1985 it designed and manufactured tiles which would infringe on Forticere's patent with priority date of January 14, 1988. *Id.* ¶ 7. Although Lafarge abandoned Theta line in 1989, in 2002 it started to manufacture Duoplan tiles which were based on Theta, albeit modified, and infringed the same claim of Forticere's patent. *Id.* ¶ 18. The court found that elements of prior user defense would be satisfied with regard to Theta, but not Duoplan, *i.e.*, that prior user was effectively locked into the uses and products as of the patent priority date. *Id.* ¶¶ 25–27.

⁶⁶ Although the court acknowledged Judge Aldous's dicta in *Lubrizol Co. v. Esso Petroleum Co.*, [1998] R.P.C. 727 (CA), which allowed for some extension of prior use, it found that the particular change of design is extension beyond permissible zone. *Forticere Ltd. v. Lafarge Roofing Ltd.*, [2005] EWHC 3024, ¶ 25 (Ch).

⁶⁷ Joe Matal, *A Guide to the Legislative History of the America Invents Act: Part II*, 21 FED. CIR. B.J. 539, 551–61 (2012) [hereinafter *AIA Legislative History II*]; prior user rights were part of the U.S. patent system from 1836 to 1952. USPTO REPORT, *supra* note 30, at 30. However, since 1952, several legislative attempts to reinstate prior user rights as a part of the U.S. patent regime had failed, including a Bill proposed in 1967. See David H. Hollander, *The First Inventor Defense: A Limited Prior User Right Finds Its Way into U.S. Patent Law*, 30 AIPLA Q.J. 37, 80 (2002).

⁶⁸ “All European Union countries except one recognize prior user rights in some form.” Comments of Microsoft Corp., *supra* note 35, at 2. For a detailed comparison of the prior user rights in Australia, Brazil, Canada, China, Denmark, France, Germany, Japan, Republic of Korea, Mexico, Russian Federation, United Kingdom, and United States, see USPTO REPORT, *supra* note 30, at 30.

⁶⁹ See Kupferschmid, *supra* note 6, at 213 (summarizing arguments for and against introduction of prior user rights in the context of the debates on harmonization of the U.S. patent system).

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change to a first-to-file regime.⁷⁰ The proponents of first user rights pointed out that in first-to-file patent systems, those rights provide fairness⁷¹ because they allow a first inventor, typically an individual who lost the race to the patent office to a following inventor, often a major corporation, to continue using the fruit of the prior inventor's ingenuity.⁷² Furthermore, those rights provide an inventor with a less expensive way to protect the invention, trade secret, which could be expected to ease the flood of defensive patent applications for low quality incremental inventions and improvements.⁷³ Finally, some argued that since trade secret is the preferred option of large corporations, if the defense was not enacted, those companies might move their business to jurisdictions that offer robust prior user rights.⁷⁴

However, opponents of prior user rights pointed out that tilting the scale in favor of trade secret protection discourages public disclosure and transfer of knowledge, diminishes the value of a patent, and may be incompatible with the constitutional mandate to promote useful arts.⁷⁵ Yet commentators conceded that

⁷⁰ Hollander, *supra* note 67, at 80–81; Griswold & Ubel, *supra* note 6, at 567–68.

⁷¹ Lemley, *supra* note 16, at 33 (“[W]e might want to implement an independent invention defense or at least some form of prior user right, . . . as a matter of equity—manufacturers can reasonably object to paying for technology they developed themselves and did not copy.”).

⁷² See, e.g., Kupferschmid, *supra* note 6, at 217–19.

⁷³ *Id.* at 212–28.

⁷⁴ “Prior user rights are needed to protect and encourage domestic investment and commercialization in these inventions. Without this protection the inventor may instead choose to locate his investment in a jurisdiction which has a prior user right.” Griswold & Ubel, *supra* note 6, at 592. “[A]ny suppression of inventions that the new legislation may cause will be outweighed by the benefits. . . . The new legislation will promote the development of new technologies, put U.S. inventors on equal footing with their foreign counterparts, and further the United States’ harmonization efforts.” Morico, *supra* note 6, at 580.

⁷⁵ See Robert L. Rohrback, *Prior User Rights: Roses or Thorns?*, 2 U. BALT. INTELL. POP. L.J. 1, 12–25 (1993). Another commentator notes:

[T]he addition of the prior user defense needlessly abandoned the path of advancing the useful arts, and sent the patent system down the path of increased value of trade secrets and decreased the value of patent rights. Unfortunately, this path inherently encourages secrecy and discourages innovation that would otherwise be furthered by public disclosure of inventions.

Hill, *supra* note 6, at 548.

some form of the rights exists in most foreign patent systems⁷⁶ without generating much litigation.⁷⁷

An unrelated event catalyzed the legislative adoption of a limited version of the defense in 1999.⁷⁸ In a 1998 case, *State Street & Trust Co. v. Signature Fin. Group, Inc.*, the Federal Circuit affirmed availability of patent protection for business methods, including computational methods used in financial transactions.⁷⁹ Before that landmark case, those methods were widely believed to be ineligible for patent protection.⁸⁰ Since the patent holder for such a method would be able to enjoin other users, including prior users, who failed to patent it, *State Street* created anxiety in business circles⁸¹ and catalyzed the introduction of limited prior user rights.⁸²

Legislators responded to this political pressure by providing a prior user defense in the America Inventors Protection Act (“AIPA”) of 1999.⁸³ The initial version of the legislation, House Bill 400, introduced in 1997, included a broad first inventor defense provision with no subject matter limitation.⁸⁴ The bill faced much opposition, however, and that provision was sharply criticized, especially by

⁷⁶ Lisa M. Brownlee, *Trade Secret Use of Patentable Inventions, Prior User Rights and Patent Law Harmonization: An Analysis and Proposal* 72 J. PAT. & TRADEMARK OFF. SOC’Y 523, 536–39 (1990).

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Even though prior user rights are comparatively easy to assert in the European Union, there is no evidence of significant litigation relating to such rights. For example, the United Kingdom has had a prior user defense since 1977; to our knowledge, the defense has been asserted in only five cases.

Comments of Microsoft Corp., *supra* note 35, at 5.

⁷⁸ Hollander, *supra* note 67, at 81.

⁷⁹ *State St. Bank & Trust Co. v. Signature Fin. Grp., Inc.*, 149 F.3d 1368, 1375 (Fed. Cir. 1998) (holding that “business methods have been, and should have been, subject to the same legal requirements for patentability as applied to any other process or method.”).

⁸⁰ Hollander, *supra* note 67, at 83–84.

⁸¹ “Firms that had long maintained their proprietary business procedures and processes as trade secrets suddenly faced the risk of infringing the exclusive rights of competitors who might legitimately obtain patent protection on the same methods.” JANICE M. MUELLER, *PATENT LAW 411* (Aspen Publishers 3d ed. 2009).

⁸² USPTO REPORT, *supra* note 30, at 6.

⁸³ Pub. L. No. 106-113, 113 Stat. 1501 (1999) (codified as amended in scattered sections of 35 U.S.C.).

⁸⁴ H.R. 400, 105th Cong. § 1961 (1997); *see also* Hollander, *supra* note 67, at 81.

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Representative Dana Rohrabacher, who believed that the defense would hurt small inventors and promote the concealment of innovation.⁸⁵

As a result of extensive debate and political compromise, a new House Bill, H.R. 1907, the American Inventors Protection Act (AIPA), was adopted in 1999.⁸⁶ Although in the original text of the bill the prior user defense was extended to any patentable process,⁸⁷ the House unexpectedly limited the scope of the defense to business methods only.⁸⁸ As a result, the AIPA provided for the first inventor defense⁸⁹ only for “a method of doing or conducting business.”⁹⁰

To date, the prior user defense has had very limited application in U.S. courts.⁹¹ This may be because under the pre-AIA first-to-invent regime, the first inventor usually attempted to assert full rights to patent rather than turning to the prior user defense.⁹² Finally, since many business methods are non-patentable,⁹³ there are few patent infringement claims to defend against.

⁸⁵ 145 CONG. REC. 19176 (1999) (statement of Rep. Rohrabacher).

⁸⁶ 145 CONG. REC. H6973 (Aug. 4, 1999). *See also* Hollander, *supra* note 67, at 82–83.

⁸⁷ Hollander, *supra* note 67, at 81–82.

⁸⁸

[First inventor defense] is limited . . . to the State Street Bank case. There was some discussion early on that. Perhaps the first inventive defense should apply to processes as well as methods. But we finally concluded that we would restrict it to methods only, and that, by having done that, we were able to satisfy some folks who were opposed to the bill otherwise.

145 CONG. REC. H6942 (daily ed. Aug. 3, 1999) (statement of Rep. Coble, sponsor of the bill).

⁸⁹ The statute provides:

It shall be a defense to an action for infringement under section 271 of this title with respect to any subject matter that would otherwise infringe one or more claims for a method in the patent being asserted against a person, if such person had, acting in good faith, actually reduced the subject matter to practice at least 1 year before the effective filing date of such patent, and commercially used the subject matter before the effective filing date of such patent.

35 U.S.C. § 273(b)(1) (2000).

⁹⁰ 35 U.S.C. § 273(a)(3) (2000).

⁹¹ In one pre-AIA district court case, the court ruled that the defense is applicable only to methods, not to machines. *Sabasta v Buckaroos, Inc.*, 507 F. Supp. 2d 986 (S.D. Iowa 2007) (holding that the defense is limited to business methods, not to articles of manufacture).

⁹² In the first-to-invent system, under 35 U.S.C. § 102(g)(2) (2000) (abrogated by AIA), the first inventor, who did not conceal or suppress the invention could assert full rights to patent on the invention against a later inventor who was first to file. If successful, the first inventor would obtain ownership of the patent for the invention with complete right to exclude other users. On the other hand, prior user defense under 35 U.S.C. § 273 (2006), has a much narrower scope: if successful in asserting the defense,

B. AIA Reform

The legislative history of the AIA, which revamped the U.S. patent system and introduced the current version of the prior user defense, is complex. The first version of the bill, designed to be the first major reform of the U.S. patent system since 1952, was introduced by Representative Lamar Smith in June 2005.⁹⁴ The bill proposed to change the U.S. patent system from first-to-invent to first-to-file.

The change increased the importance of prior user rights as a fairness remedy for a first inventor who was not the first to file and could not obtain a patent but who should be entitled to practice his or her invention.⁹⁵ After legislative battles spanning several congressional sessions, the bill passed the House on June 23, 2011, and a compromise version was adopted by the Senate on September 8, 2011.⁹⁶ President Barack Obama signed the bill into law on September 16, 2011.⁹⁷

C. Floor Debates on Prior User Defense

Senator Jon Kyl, one of the co-sponsors of the bill, described the purpose of the legislation and explained that prior user rights are an important feature of the new law:

the first user, who does not have to be the first inventor, can practice the invention but the patentee keeps the patent rights and can assert them against anyone else but the first inventor. Essentially, under the prior user defense, the prior user receives a compulsory free license with certain restrictions on the scope of commercial use. So, under the pre-AIA first-to-invent system, the former option was much more attractive. In fact, that option has a seen significant number of cases. Thus, according to the research of Lex Machina, between January 1, 2005 and October 15, 2011, there were about ninety federal cases involving 35 U.S.C. § 102(g)(2) issues. See Written Comment of Cisco Systems Inc. on behalf of The Coalition for Patent Fairness, Exhibit A (Nov. 8, 2011), http://www.uspto.gov/aia_implementation/pur-2011oct25-cisco.pdf [hereinafter Cisco Comments].

⁹³ The main obstacle for patentability of business methods is involvement of human behavior, which currently excludes them from patentable subject matter under 35 U.S.C. § 101 (2012). See *Bilski v. Kappos*, 130 S. Ct. 3218 (2010) (holding that a computational method of commodity trading is not patentable). Furthermore, some business methods may be non-eligible for patent protection because they lack novelty or non-obviousness within the meaning of the Patent Act, for instance, because they consist of obvious, albeit commercially successful, combination of prior art.

⁹⁴ Joe Matal, *A Guide to the Legislative History of the America Invents Act: Part I*, 21 FED. CIR. B.J. 435, 438 (2012) [hereinafter *AIA Legislative History I*].

⁹⁵ “The reason most frequently cited in support of prior user rights in a first-inventor-to-file regime is ensuring “fairness”—appropriately balancing the equitable interests of the prior user and the patentee.” USPTO REPORT, *supra* note 30, at 50.

⁹⁶ *AIA Legislative History I*, *supra* note 94, at 446–47.

⁹⁷ *Id.* at 443–47.

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The overarching purpose and effect of the present bill is to create a patent system that is clearer, fairer, more transparent, and more objective. . . .

By adopting the first-to-file system, for example, the bill creates a rule that is clear and easy to comply with and that avoids the need for expensive discovery and litigation over what a patent's priority date is. By adopting a simple definition of the term "prior art," the bill will make it easier to assess whether a patent is valid and cheaper for an inventor to enforce his patent. By recognizing a limited prior user right, the bill creates a powerful incentive for manufacturers to build factories and create jobs in this country.⁹⁸

As Senator Kyl indicated, the debates over the bill took place during the economic downturn, which resulted in an unemployment rate of approximately nine percent.⁹⁹ The objectives of stimulating the creation and retention of American jobs, as well as maintaining the global competitiveness of U.S. innovation,¹⁰⁰ colored the debates over prior user rights.

Several diverse policy objectives shaped these debates as well as the final text of the prior user provision. Understanding these objectives is important because the statutory provision does not have significant grounding in prior case law.¹⁰¹

⁹⁸ 157 CONG. REC. S5319 (daily ed. Sept. 6, 2011) (statement of Sen. Kyl).

⁹⁹ "If you look at unemployment, unemployment is more than 9 percent, and it has been more than 9 percent for an extended period of time. Weekly jobless claims: more than 400,000. We have more than 14 million people who are out of work." 157 CONG. REC. S5412 (daily ed. Sept. 8, 2011) (statement by Rep. Hoeven).

¹⁰⁰

Yesterday, I commended Austan Goolsbee, the chair of the President's Council of Economic Advisers, for his white board presentation this week on the importance of patent reform to help America win the global competition and create jobs. The creation of more than 220,000 jobs in the private sector last month, the creation of 1.5 million jobs over the last 12 months, and the unemployment rate finally being reduced to 8.9 percent are all signs that the efforts we have made over the last 2 years to stave off the worst recession since the Great Depression are paying off and the economic recovery is taking hold.

157 CONG. REC. S1360 (daily ed. Sept. 6, 2011) (statement by Rep. Leahy, co-sponsor of the Act).

¹⁰¹ "[N]o one can gainsay the overwhelming judicial support for the proposition that explanations by sponsors of legislation during floor discussion are entitled to weight when they cast light on the construction properly to be placed upon statutory language." *Overseas Educ. Ass'n, Inc. v. Fed. Labor Relations Auth.*, 876 F.2d 960, 967 n.41 (D.C. Cir. 1989).

Representative Lamar Smith consistently articulated three reasons to include an expansive prior user defense in the AIA. First, he emphasized that in the first-to-file regime, the defense was meant to safeguard the right of the original inventor who had decided to keep the invention secret to practice the invention even if a later inventor patented it.¹⁰² Second, the defense was designed to protect “substantial investments in the development and preparation of proprietary technologies,”¹⁰³ notably in the semiconductor industry. Finally, since this defense existed in most foreign patent systems, its introduction in the United States would harmonize the U.S. system with foreign ones, and would simplify corporate compliance across borders.¹⁰⁴

Congressional debates highlighted additional reasons to adopt the prior user defense. Legislators indicated that one of the purposes behind the defense was to create an incentive for global corporations to keep and create high paying jobs in the United States in order to take advantage of the additional protection for their proprietary technologies.¹⁰⁵ This protection could shield those technologies from being copied and infringed upon overseas, where such infringement is difficult to detect or prosecute. Senator Kyl illustrated this objective:

This new defense will ensure that the first inventor of a new process, or of a product used in a manufacturing process, can continue to use the invention in a commercial process even if a subsequent inventor later patents the idea. For many manufacturing processes the patent system presents a Catch-22. If the manufacturer patents the process, he effectively discloses it to the world. But patents for processes that are used in closed factories are difficult to police. It is all but impossible to know if someone in a factory in China, for example, is infringing such a patent. . . . Patenting such manufacturing processes effectively amounts to giving away the invention to foreign manufacturers.¹⁰⁶

¹⁰² See, e.g., 157 CONG. REC. E1219 (daily ed. June 28, 2011) (statement of Rep. Smith).

¹⁰³ *Id.*

¹⁰⁴ See 157 CONG. REC. H4483 (daily ed. June 23, 2011) (statement of Rep. Smith).

¹⁰⁵ 157 CONG. REC. S5426 (daily ed. Sept. 8, 2011) (statement of Sen. Blunt).

¹⁰⁶ 157 CONG. REC. S5319 (daily ed. Sept. 16, 2011) (statement of Sen. Kyl). Rep. Blunt offered an illustration from another industry:

D. Prior User Defense Debates: Political Pressures

In the course of a five-year long legislative marathon to reform the U.S. patent system, there was significant political input from large corporations, universities, startup companies, and individual inventors regarding prior user rights.¹⁰⁷ These positions on prior user rights can be elicited from their congressional hearing testimonies and the formal responses to the USPTO study on prior user defense commissioned by Congress.¹⁰⁸

In general, large corporations supported the provision while universities and individual inventors opposed it.¹⁰⁹ The corporations raised a concern, shared by legislators,¹¹⁰ about lack of protection for patented American inventions overseas, and praised the idea of using trade secrets as an alternative protection.

To specifically illustrate let us consider that U.S. researchers are leading the world in discovering genetic markers that are associated with important agronomic traits which serves as breeding production tools. Instead of teaching foreign competitors these production tools, a preferred alternative may be to rely on prior user rights for such innovative crop breeding technology which is used in the manufacture of new plant varieties although the use may only occur once a year after each growing season and for many years to selectively manufacture a perfected crop product that is sold.

157 CONG. REC. S5427 (daily ed. Sept. 8, 2011) (statement of Rep. Blunt).

¹⁰⁷ As with the creation of the prior user rights defense in the AIPA, the limited expansion of the defense in the AIA sparked heated debate. Proponents of the defense argued that the defense is necessary in a competitive economy and strikes the balance between trade secret and patent protection. Furthermore, the proponents asserted that a prior user defense is necessary in a first-inventor-to-file regime to provide inventors who put inventions to practice first with the ability to continue using their innovations, even though they may not be entitled to a patent. Critics argue, however, that prior user rights undermine the purpose of the patent system by creating a strong incentive to protect innovations as trade secrets rather than disclose them and fuel technological growth in the United States. USPTO REPORT, *supra* note 30, at 8.

¹⁰⁸ *Id.* at 1–2.

¹⁰⁹ *Legislative History I*, *supra* note 94, at 559–61 (providing highlights of universities' opposition to prior user defense from 1992 to 2011).

¹¹⁰

The prior user rights defense, in general, is important for American manufacturers because it protects companies that invent and use a technology, whether embodied in a process or product, but choose not to disclose the invention through the patenting process, and instead rely on trade secret protection. The use of trade secrets instead of patenting may be justified in certain instances to avoid, for example, the misappropriation by third parties where detection of that usage may be difficult. These companies should be permitted to continue to practice the invention, even if another party later invents and patents the same invention.

157 CONG. REC. S5440 (Sept. 8, 2011) (statement of Rep. Leahy).

Consequently, these corporations supported the prior user defense as protective of the secrecy of an invention.¹¹¹ On the other hand, universities and individual inventors, which do not use inventions for commerce or manufacturing, insisted that the provision would disproportionately and negatively affect non-profit research.¹¹²

However, the precise position of corporations on the issue of prior user rights varied across industries. For instance, Hospira, a global pharmaceutical company, praised the adoption of prior user rights as an important step towards harmonization with global patent regimes.¹¹³ A global telecommunications company, Cisco, also strongly asserted the importance of prior user rights¹¹⁴ because of global competition, world-wide disclosure of inventions patented in the United States, and the danger of IP piracy.¹¹⁵ Microsoft confessed lack of experience with prior user rights¹¹⁶ and expressed a generic commitment to strong patent protection.¹¹⁷ Such differences are consistent with results of several surveys that indicate how pharmaceutical companies tend to use trade secrets more than the software industry.¹¹⁸ The viability of trade secret protection of IP varies across industries¹¹⁹

¹¹¹ “[I]nclusion of prior user rights is essential to ensure that those who have invented and used a technology but choose not to disclose that technology—generally to ensure that they not disclose their trade secrets to foreign competitors—are provided a defense against someone who later patents the technology.” CONG. REC. E1219 (daily ed. June 22, 2011) (speech by Rep. Smith).

¹¹² *AIA Legislative History II*, *supra* note 63, at 560–61; *see also* Comments from Neil Thomas, to the USPTO, Prior User Rights, 1 (Nov. 8, 2011), http://www.uspto.gov/aia_implementation/pur-2011nov08-neil_thomas.pdf.

¹¹³ Hospira Comments on Prior User Rights, *supra* note 28.

¹¹⁴

Particularly in this current economic climate, it is important to encourage—and not create barriers that stifle—continued investments in U.S. industry. Cisco and the Coalition for Patent Fairness respectfully request that the Office strongly support robust prior user rights and confirm that the prior user rights provided by the Act have the breadth to fully address the concerns noted above.

Cisco Comments, *supra* note 92, at D.

¹¹⁵ Some American businesses may also determine that it is more beneficial to forego patent protection in the United States in favor of trade secret protection. To obtain patent protection for an innovation, an inventor must disclose that innovation to the public. However, while the disclosure is effectively world-wide, the patent protection is limited to the United States. Therefore, businesses competing against foreign companies, or in markets outside the United States, may be better served by keeping some innovations private. *Id.* at A.

¹¹⁶ Comments of Microsoft Corp., *supra* note 35, at 2.

¹¹⁷ *Id.* at 7.

¹¹⁸ “Patent protection may not be desirable in other circumstances where disclosure can have adverse consequences. For example, disclosing search engine algorithms would facilitate gaming the

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and according to the types of inventions to be protected.¹²⁰ Furthermore, this is in line with the results of studies that show that all things being equal, large businesses tend to prefer trade secrecy to patent protection.¹²¹

There were differences of opinion among institutions of higher learning as well. The Wisconsin Alumni Research Foundation, a technology transfer agent of the University of Wisconsin, sharply criticized the adoption of prior user rights as unconstitutional.¹²² However, the University of California saw the main problem with the new law as the lack of clear definition, rather than adoption of prior user rights per se.¹²³ A joint statement of several institutions of higher learning, while

results. On the other hand, secrecy is ineffective where the technology can be readily reverse-engineered. Where regulatory approval is needed, secrecy is impossible.” Comments of Computer and Communications Industry Ass’n Pursuant to the Notice of Public Hearing and Request for Comments on the Study of Prior User Rights, 3 (2011), http://www.uspto.gov/aia_implementation/pur-2011nov08-ccia.pdf [hereinafter CCIA Comments].

¹¹⁹ J. Jonas Anderson, *Secret Inventions*, 26 BERKELEY TECH. L.J. 917, 927 (2011) (“[S]tratifcation of value across industry and innovation type indicates that secrecy is more valuable in industries in which it is available (including software, manufacturing, chemicals) and certain invention types that are less revealing (methods and processes) while patents provide more private value for other industries (pharmaceuticals, consumer products) and invention types (product innovations).”).

¹²⁰ See, e.g., Beckerman-Rodau, *supra* note 11, at 388–406 (discussing seventeen factors affecting the relative value of patent protection over trade secret protection, including market value of the product, likelihood of reverse engineering, type of invention, difficulty and cost of maintaining secrecy, expense and time to obtain patent protection, difficulty of maintaining secrecy of the invention, economic risks of losing trade secret, employee mobility, and industry custom).

¹²¹ “In any well-run operating firm, secrecy of internal operations is the default: Employee contracts and conventional controls on access to facilities work efficiently in concert with the law of trade secrets to preserve secrecy, especially in industrial processes. Once basic precautions and routines are established, the zone of protection can be expanded indefinitely at little additional cost. The legal protection offered by trade secret law reduces the costs of investing in physical restrictions on access and exhaustive contracting to protect specific information.” CCIA Comments, *supra* note 118, at 2.

¹²² In WARF’s view, there are serious legal and constitutional issues associated with placing trade secret law in the patent law, and through that assimilation, granting non-inventors coexclusive rights for unlimited times. Based on a plain meaning reading of Section 5 of the AIA, along with constitutional text and relevant case law, WARF submits that inserting trade secret law into patent law suffers from serious constitutional infirmities. Comments of the Wisconsin Alumni Research Found. In the Matter of Notice of Public Hearing and Request for Comments on Study of Prior User Rights, 2 (Nov. 3, 2011) http://www.uspto.gov/aia_implementation/pur-2011nov04-wisconsin_alumni_research_foundation.pdf.

¹²³ “The new law creates added uncertainty due to new interpretations of what the law means that will likely arise during its implementation. Uncertainty favors well-financed parties who can stretch out litigation based upon that uncertainty, regardless of the actual merits of the defense in that particular case.” The Regents of the Univ. of California, Written Comments on Prior User Rights to U.S. Patent and Trademark Office, 1–2 (Nov. 7, 2011), http://www.uspto.gov/aia_implementation/pur-2011nov07-university_of_ca.pdf.

acknowledging their skepticism, posited that prior user rights have a positive role to play.¹²⁴

Finally, individual inventors pointed out that prior user rights create uncertainty about enforcement of patent rights and, consequently, about their value. One commentator claimed that “‘prior user rights’ [would] diminish the value of all patents”¹²⁵ and, therefore, would make it more difficult for an innovative startup company to obtain access to venture capital, which is a strong motive for patenting.¹²⁶ Other parties countered that such negative side effects of prior user rights have not been observed in other countries, such as France, that have had a more expansive version of those rights for decades.¹²⁷

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[O]ver the course of the more than six-year effort to reform U.S. patent law, the university community came to recognize the importance to some private sector companies of the availability of a prior use defense to patent infringement extending beyond the limitation to business method patents. In complex products and manufacturing processes, many containing hundreds or even thousands of patented components, it may not make sense to patent every component or process. Such products or processes can become vulnerable to a charge of infringement from a patent acquisition company, threatening an entire product based on an unpatented component. An appropriately structured prior user rights scheme could provide legitimate protection against such threats.

Higher Education Comments on Prior User Rights, 1 (Nov. 8, 2011), http://www.uspto.gov/aia_implementation/pur-2011nov08-higher-education-associations.pdf.

¹²⁵ E-mail Comment from Neil Thomas to US Patent and Trademark Office on Prior User Rights, 1 (Nov. 8, 2011). http://www.uspto.gov/aia_implementation/pur-2011nov08-neil_thomas.pdf.

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In an important showing, we demonstrate that patenting may play a previously underappreciated role in helping startups to secure investment from various sources of entrepreneurial capital, including not only angel and venture investors, but also “friends and family” and commercial banks. Also notable is our finding that the costs of prosecuting and enforcing patents are a substantial barrier to technology entrepreneurs attempting to access the patent system. But the explanation for startups choosing not to patent is also context-specific: biotechnology company executives are much more likely to cite concerns about information disclosure than those in other industries.

Stuart J.H. Graham et al., *High Technology Entrepreneurs and the Patent System: Results of the 2008 Berkeley Patent Survey*, 24 BERKELEY TECH. L.J. 1255, 1262 (2009).

¹²⁷ Comments of Microsoft Corp., *supra* note 35, at 3.

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E. Compromise with the Universities and the Final Text

Although the initial AIA version of the prior user right provision introduced in the House bill in March 2011 was much broader than in AIPA (1999),¹²⁸ a compromise with universities resulted in a narrow defense with numerous exceptions and limitations, including a one-year minimum requirement for prior use.¹²⁹ Senator Kyl commented on the resulting changes in the text of the House bill: “The compromise reached in the House of Representatives addresses university concerns by requiring a defendant to show that he commercially used the subject matter that infringes the patent at least 1 year before the patent owner either filed an application or disclosed the invention to the public.”¹³⁰ In the Senate, the scope of the defense was narrowed even further; it completely exempted university-owned patents from the prior user defense.¹³¹ Even though that exemption removed the very rationale for the stringent one-year requirement and other limitations introduced in the House bill, those limitations remained in the text.¹³²

IV. PRIOR USER RIGHTS IN THE AIA: PUZZLES OF THE FINAL TEXT

A. Elements of the Defense

1. Eligible Subject Matter

The final text of § 273 (AIA) limits the subject matter eligible for the prior user defense to a “process, . . . machine, manufacture, or composition of matter used in a manufacturing or other commercial process” in the United States.¹³³ The new statute excludes consumer products, which are not a part of a commercial

¹²⁸ *AIA Legislative History II*, *supra* note 67, at 560–61.

¹²⁹ Commentators criticized limiting of the scope of prior user defense:
A better solution would be to grant blanket prior user rights to first inventors. Doing so would place holders of patented inventions and trade secrets on equal footing: patentees would be able to exclude others from using a patented invention, except for those inventors that invented prior to the patent application. Similarly, trade secret holders could operate knowing that later-filed patents would not subject them to infringement liability or the inability to practice their own invention.

Anderson, *supra* note 119, at 971.

¹³⁰ 157 CONG. REC. S5430 (daily ed. Sept. 8, 2011) (statement of Sen. Kyl).

¹³¹ 35 U.S.C. § 273(e)(5) (2012).

¹³² *AIA Legislative History II*, *supra* note 67, at 560–61, 566–67.

¹³³ 35 U.S.C. § 273(a) (2012).

process.¹³⁴ The range of eligible subject matter is much broader than it was in the AIPA,¹³⁵ which restricted protection to “methods of conducting business”¹³⁶ only.

2. “Commercial Use in the United States”

Prior “commercial use” of the invention in the United States is a necessary element of the defense, yet it is not defined in the statute, except that a use “in connection with an internal commercial use or an actual arm’s length sale”¹³⁷ satisfies the element. Furthermore, “premarketing regulatory review,”¹³⁸ such as the FDA approval process, and use by a non-profit entity, such as a hospital or laboratory,¹³⁹ are forms of commercial use for purposes of the statute. The statute is silent on what distinguishes “commercial use” from, for instance, an internal research project, preparatory steps, or experimental use.¹⁴⁰

Materials from the congressional debates shed light on the intended meaning of the “commercial use” of an invention. Legislators were aware that the provision does not clearly explain what constitutes “commercial use.”¹⁴¹ Over the course of

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Subsection (a) expands the defense beyond just processes to also cover products that are used in a manufacturing or other commercial process. Generally, products that are sold to consumers will not need a PCU [prior commercial use] defense over the long term. As soon as the product is sold to the public, any invention that is embodied or otherwise inherent in that product becomes prior art and cannot be patented by another party, or even by the maker of the product after the grace period has expired. Some products, however, consist of tools or other devices that are used only by the inventor inside his closed factory. Others consist of substances that are exhausted in a manufacturing process and never become accessible to the public. Such products will not become prior art. Revised section 273 therefore allows the defense to be asserted with respect to such products.

157 CONG. REC. S5430 (Sept. 8, 2011) (Statement of Sen. Kyl).

¹³⁵ 35 U.S.C. § 273(b)(3) (2000).

¹³⁶ 35 U.S.C. § 273(a)(1) (2000).

¹³⁷ 35 U.S.C. § 273(a)(1) (2012).

¹³⁸ 35 U.S.C. § 273(c)(1) (2012).

¹³⁹ *Id.*

¹⁴⁰ *AIA Legislative History II*, *supra* note 67, at 564.

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[T]he utility and reliability of section 5 is dependent on the prior use being an “internal commercial use”—a term for which there is no readily available judicial precedent. Should section 5 of H.R. 1249 become law, an innovator and his legal counsel need some reasonable assurance that an internal use will, in fact, be deemed to be a commercial use protectable under the law.

the Senate debate, legislators indicated a preference for an expansive interpretation of the term with an eye on furthering the underlying policy goals of promoting investment in the American economy and local job creation.¹⁴² For instance, when questioned on the scope of “commercial use,” Senator Patrick Leahy, co-sponsor of the bill, asserted that diligent preparation for the implementation of an invention, such as building prototypes, should satisfy the requirement of “commercial use.”¹⁴³ Although several legislators favored further expansions of “commercial use” to include “substantial preparation,” the agreement with the universities prevented such expansion.¹⁴⁴ Even though the exact scope of the “commercial use” element remains undefined, legislative debates support expansive interpretation of this element.

Furthermore, expansive interpretation of “commercial use” may be important for individual inventors who are not able to immediately invest in building facilities for commercial exploitation of their inventions. Accordingly, a narrow

These assurances are all the more important for U.S. companies in the biotechnology field with extraordinarily long lead times for commercialization of its products.

157 CONG. REC. S5427 (Sept. 8, 2011) (statement of Rep. Blunt).

¹⁴² See *supra* note 99. 157 CONG. REC. S1360 (daily ed. Sept. 6, 2011) (statement by Rep. Leahy, co-sponsor of the Act).

¹⁴³ 157 CONG. REC. S5427 (daily ed. Sept. 8, 2011) (statements of Rep. Blunt and Rep. Leahy).

¹⁴⁴

The present bill requires the defendant to commercially use the invention in order to be able to assert the defense. Chairman SMITH has suggested, at 157 Cong. Rec. E1219 (daily ed. June 28, 2011), that in the future Congress should expand the defense so that it also applies when a company has made substantial preparations to commercially use an invention. Some have also suggested that the defense should be expanded to cover not just using, but also making and selling an invention if substantial preparations have been made to manufacture the invention. This would expand the defense to more fully compensate for the repeal of current section 102(g), which allows a party to invalidate a patent asserted against it if the party can show that it had conceived of the invention earlier and diligently proceeded to commercialize it.

* * *

In the end, however, a substantial-preparations predicate is not included in this bill simply because that was the agreement that was struck between universities and industry in the House of Representatives last summer, and we are now effectively limited to that agreement. Perhaps this issue can be further explored and revisited in a future Congress, though I suspect that many members will want a respite from patent issues after this bill is completed.

157 CONG. REC. S5430 (Sept. 8, 2011) (statement of Sen. Kyl).

interpretation of “commercial use” that excludes such post-inventive activities as perfecting the invention and using its specifications for commercial negotiations is likely to put an individual inventor at a significant disadvantage compared to a large corporation or university. Since individual inventors and their small startup companies are often on the forefront of innovation and job creation, putting them at a disadvantage would be against the underlying policy objectives of the AIA—promotion of economic growth and protection of the individual inventor.¹⁴⁵ Therefore, expansive interpretation of “commercial use,” whether it comes about judicially or by statute, that would include post-inventive activities of individual inventors would level the playing field and better serve the underlying objectives of the AIA.

3. *One-Year Requirement*

To be eligible for the defense, the prior inventor must establish commercial use of the invention in the U.S. for at least one year before the earlier of (1) the effective filing date¹⁴⁶ of the second inventor’s application for a patent on the invention or (2) the date of the second inventor’s disclosure of the invention to the public.¹⁴⁷ This requirement creates a significant obstacle to claiming the defense because one year is a very long lead time, especially in innovative industries. Furthermore, the one-year limitation is likely to have a disparate effect on individual inventors who may be unable to start commercial use promptly.

In an early version of the AIA, the stringent one-year requirement served two key legislative objectives: to assure universities of the limited scope of the defense¹⁴⁸ and to prevent derivation, i.e., use of the defense by someone who derived an invention from the true inventor and was able to commercialize it before the inventor applied for a patent.¹⁴⁹ However, a commentator observed that the requirement could result in unfairness to a true first inventor.¹⁵⁰ More importantly, neither objective justifies the one-year requirement anymore: in the final version of

¹⁴⁵ “[T]he America Invents Act will transition our patent filing system from a first-to-invent system to the more objective first-inventor-to-file system, used throughout the rest of the world, while retaining the important grace period that will protect universities and small inventors, in particular.” 157 CONG. REC. S5322, S5326 (Sept. 6, 2011) (remarks by Rep. Leahy).

¹⁴⁶ 35 U.S.C. § 102(d) (defining effective filing date).

¹⁴⁷ 35 U.S.C. § 273(a)(2) (2012).

¹⁴⁸ See 157 CONG. REC. S5430 (daily ed. Sept. 8, 2011) (statement of Sen. Kyl); see *AIA Legislative History II*, *supra* note 63, at 566–67 (highlighting the history of the one-year limit provision).

¹⁴⁹ *AIA Legislative History II*, *supra* note 67, at 566–67.

¹⁵⁰ *Id.*

the AIA, universities are completely exempt from the prior use defense¹⁵¹ and derivation is a bar to the defense.¹⁵² Accordingly, this Article advocates abolition of the one-year requirement because it does not serve the original legislative purposes.

Eliminating the one-year requirement would necessitate legislative action. However, the courts can mitigate the impact of the artificially high burden by expanding the interpretation of what constitutes preparation and how early the preparation clock starts ticking. In other words, the scope of “commercial use” and the one-year requirement are interrelated issues because an expansive interpretation of what constitutes “commercial use” may mitigate the burden of the one-year requirement—if an earlier post-inventive activity counts toward meeting the one-year requirement, then it will be easier to satisfy.

Finally, as a procedural matter, a prior user must show elements of the defense by “clear and convincing evidence,”¹⁵³ which is another high evidentiary standard to satisfy. This requirement, along with the stringent sanctions for unreasonable invocation of the defense under § 273(f), are designed to prevent abuse of prior use claims.

B. Limitations on the Defense

1. Personal Nature of the Defense

The personal nature of the defense refers to the prohibition of transferability of the defense from an eligible prior user to another person or entity, except by disposition of a line of business.¹⁵⁴ This limitation is common among the international analogues of the prior user defense and is often described as a personal “statutory license.”¹⁵⁵ Notably, although the prior user is not allowed to derive the invention “from the patentee, or persons in privity with the patentee,”¹⁵⁶ the prior user does not have to be the original inventor.

2. Limitations on Expansion and Modification of Use

The issue of the scope of the defense, specifically, to what extent the prior user can expand or modify the use of the patented invention without overstepping

¹⁵¹ 35 U.S.C. § 273(e)(5)(A) (2012).

¹⁵² 35 U.S.C. § 273(e)(2) (2012).

¹⁵³ 35 U.S.C. § 273(b) (2012).

¹⁵⁴ 35 U.S.C. § 273(e)(1)(B) (2012).

¹⁵⁵ The term was coined by Judge Aldous in *Helitune Ltd. v. Stewart Hughes Ltd.*, [1991] F.S.R. 171, 206 (Eng.).

¹⁵⁶ 35 U.S.C. § 273(e)(2) (2012).

the limits of the defense, is a very important but complicated matter, as the examples from the U.K. and Japan indicate. The AIA provides significant clarity on this important point by allowing “improvements in the claimed subject matter that do not infringe additional specifically claimed subject matter of the patent.”¹⁵⁷ Furthermore, although Congress did not impose limits on expansion of the scale of the invention’s commercial use by a prior user, it limited the sites at which the purchaser of the business may practice the invention to those in use before the effective filing date of the patent that claims the invention.¹⁵⁸ Finally, the statute requires continuous commercial use of the invention; should a prior user stop using the invention, the use before such abandonment cannot be used to establish applicability of the prior user defense.¹⁵⁹

3. *University Exception*

As a result of lobbying by institutions of higher learning, patents to their inventions are exempt from the prior user defense:

A person commercially using subject matter to which subsection (a) applies may not assert a defense under this section if the claimed invention with respect to which the defense is asserted was, at the time the invention was made, owned or subject to an obligation of assignment to . . . an institution of higher education.¹⁶⁰

There is an exception to that exception; namely, this provision does not apply “if any of the activities required to reduce to practice the subject matter of the claimed invention could not have been undertaken using funds provided by the Federal Government.”¹⁶¹ These carve outs have no parallels in foreign patent systems.

¹⁵⁷ 35 U.S.C. § 273(e)(3) (2012).

¹⁵⁸ 35 U.S.C. § 273(e)(1)(B) (2012).

¹⁵⁹ 35 U.S.C. § 273(e)(4) (2012).

¹⁶⁰ 35 U.S.C. § 273(e)(5)(A) (2012).

¹⁶¹ 35 U.S.C. § 273(e)(5)(B) (2012).

The university exception covers not only universities but also technology transfer organizations.¹⁶² Some of those organizations hold and manage inventions made by universities, but others are so-called “patent trolls.” While the role of such organizations varies from research and innovation to generating additional revenue through patent litigation, the university exception applies to all of them. Finally, the university exception applies to an invention which “at the time the invention was made, [is] owned or subject to an obligation of assignment”¹⁶³ by an accredited institution of higher learning. Specifically, the exemption covers privately-funded projects, if the collaborative agreement provides for assignment of patents to an institution of higher learning.

In effect, the university exception created a two-tiered patent system, in which non-university patents are subject to the claims of a prior user defense by an accused infringer, and, arguably, more valuable university patents do not allow for such a defense. The latter class is more valuable because of the greater certainty over the right to exclude an infringer; an unknown prior user would not be able to claim the prior user defense and could be enjoined from practicing the invention. To return to the analogy with real property, university-owned patents are guaranteed to be free from a prior user’s claim to an easement.

V. IMPACT OF THE PRIOR USER DEFENSE

A. *Global Corporations: More Secrecy*

As a result of the adoption of the AIA version of the prior user defense, global corporations, many of which lobbied in favor of the defense, will enjoy more viable choices in protecting their IP assets in the U.S. The availability of the new defense is likely to make trade secret protection even more attractive.¹⁶⁴ However, the shift should be subtle and its magnitude will depend on the corporate perception of

¹⁶² 35 U.S.C. § 273(e)(5)(A) (2012); *see also* 157 CONG. REC. S5430 (daily ed. Sept. 8, 2011) (stating that “the university exception was extended to also include university technology-transfer organizations.”).

¹⁶³ 35 U.S.C. § 273(e)(5)(A) (2012).

¹⁶⁴

Time will tell if a court will find whether prior user rights encourage so much secrecy as to create a constitutional conflict between federal patent law and state trade secret law. Adoption of prior user rights in the AIA, however, does suggest that Congress believes that trade secrets continue to play a robust role in our intellectual property system. Congress . . . has taken a cautious step toward embracing trade secrecy.

Dmitry Karshedt, *Did Learned Hand Get It Wrong?: The Questionable Patent Forfeiture Rule of Metallizing Engineering*, 57 VILL. L. REV. 261, 335–36 (2012).

several relative risk factors involved in choosing trade secret over patent protection.¹⁶⁵ Given the lack of guidance from the statute or precedent, combined with the heavy burden to show one year of prior commercial use, the prior user defense is not likely to be the key factor in the *ex ante* decision,¹⁶⁶ but it is an option in *ex post* infringement defense. The magnitude of the defense's impact on that decision will vary by industry. Industries with innovations that can be protected through trade secrets, such as pharmaceutical companies, are likely to benefit more than, for instance, software companies.

B. Universities: A Special Deal

The new statute grants special treatment to patents that are the result of some involvement of an accredited U.S. institution of higher learning.¹⁶⁷ Thus, a prior user will have no protection against an infringement claim if the infringed patent is “made, owned, or subject to an obligation of assignment”¹⁶⁸ to the university, even if the invention is a result of a joint research effort of a major corporation and a university. As a result, it is likely that institutions of higher learning may enjoy not only “first grade” patents, which are not subject to the defense, but also the inflow of corporate investment to produce such patents in the future.

C. Individual Inventor: The Worst of Both Worlds

The impact of the prior user defense on a small inventor is most likely negative. Not only are the inventor's patents subject to the prior user defense if infringed upon by a third party, but if the small inventor is accused of infringement, the prior user defense may be especially difficult to claim. Unless “commercial use” is given a very expansive interpretation, a small inventor would likely not qualify because such an inventor usually does not have a commercial enterprise. Unlike a large semiconductor company that invests in a plant for a new chip and creates thousands of jobs, an individual inventor may not be able to create any jobs or make any commercial use of a significant scale quickly enough. Although the sponsors of the AIA purported to protect the interests of both small inventors and

¹⁶⁵ Granting prior user rights (as the new America Invents Act does) or eliminating injunctions would reduce somewhat the incentive given to the winner [of patent race], but it would also reward those who were a close second in the race. That would reduce the “stick” incentive to race, since the loser would not have as much to lose. The effects on the carrot side would be more complex, since they will depend on whether the individual racers think they are likely to win and on whether they are risk-averse or risk-preferring (that is, whether they would prefer a chance at a large payoff to a certainty of a small payoff). Mark A. Lemley, *The Myth of the Sole Inventor*, 110 MICH. L. REV. 709, 757 (2012).

¹⁶⁶ Neu, *supra* note 8, at 17 (suggesting that in most cases, prior user defense will not be a key factor in *ex ante* planning and outlining possible exceptions to this rule).

¹⁶⁷ 35 U.S.C. § 273(e)(5) (2012).

¹⁶⁸ 35 U.S.C. § 273(e)(5)(A) (2012).

universities,¹⁶⁹ there was a special deal for the latter, but not for the former. Since a small inventor is not likely to be able to claim the defense, he or she would do best to file a patent application and disclose the invention as early as possible, even though he or she may not be able to afford patent prosecution expenses, while the large corporations and universities can merely wait and see.¹⁷⁰

Small inventors have made some of the most important discoveries and, therefore, their inventive activities should be protected as much as those of larger corporations. Thus, in light of the legislative statement that the AIA is designed to benefit all inventors, including individual inventors,¹⁷¹ “commercial use” should be given an expansive interpretation. A well-developed jurisprudence of the post-conception “diligence” under the pre-AIA § 102(g) can provide initial guidance here.¹⁷² Ideally, the legislature should adopt a very broad prior user defense in order to level the playing field for all inventive entities. However, since Congress is not likely to revisit patent regime soon, a broad interpretation of “commercial use” by the courts can achieve similar results.

CONCLUSION

A practitioner should be aware of the novel AIA prior user defense and its intricacies both in the transactional and litigation contexts. On the transactional side, special attention should be paid to the ownership of a patent (university or not) and the possibility that a major industry player might claim the defense in an infringement case. From the litigation perspective, the uncertainties of the statutory language and the arguments for a particular interpretation are matters to be aware of.

While the future impact of the prior user defense is unknown, in its current form, riddled with exceptions, it is likely to protect the interests of large corporations and universities and damage the interests of the individual inventor. Based on the analysis of the legislative intent behind the AIA, including the desire to stimulate economic activity and protect the small inventor, an expansive interpretation of eligibility for the prior user defense is necessary. Accordingly, the

¹⁶⁹ 157 CONG. REC. S5321 (daily ed. Sept. 16, 2011) (statement of Sen. Kyl) (“[AIA] will provide important benefits to U.S. inventors of all sizes.”).

¹⁷⁰ See Jay M. Mattappally, *Goliath Beats David: Undoing the Leahy-Smith America Invents Act’s Harmful Effects on Small Businesses*, 58 LOY. L. REV. 981, 1020 (2012) (arguing that prior user defense is likely to disproportionately benefit large corporations).

¹⁷¹ 157 CONG. REC. S5321 (daily ed. Sept. 16, 2011) (statement of Sen. Kyl).

¹⁷² See USPTO REPORT, *supra* note 30, at 50 (noting that fairness to the first inventor is the underlying policy for both prior user rights and the pre-AIA § 102(g)).

legislature should drop the one-year requirement from the text of the provision, and either the courts or the legislature should adopt an expansive interpretation of the term “commercial use” to include the post-inventive activities of small inventors and large businesses alike.