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Volume 12 | Issue 1

Article 7

October 2004

There Is a Better Way: It's Time to Overhaul the Model for Participation in Private Standard-Setting

Robert M. Webb

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THERE IS A BETTER WAY: IT'S TIME TO OVERHAUL THE MODEL FOR PARTICIPATION IN PRIVATE STANDARD-SETTING

*Robert M. Webb**

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I. INTRODUCTION

"At stake here is nothing less than the future of the computer memory industry."¹ So began Infineon's petition for certiorari to the Supreme Court to hear appeal of the decision by the Federal Circuit in *Rambus v. Infineon*.² Allowing for hyperbole often associated with a petition for certiorari to the Supreme Court, that case does present a prism through which to consider the issues that surround participation by private entities in standard-setting organizations (SSO) and the viability of the current model for treatment of intellectual property issues. The day following the Supreme Court's announcement of the denial of Infineon's writ of certiorari, Rambus' stock spiked,³ and Infineon's stock tumbled.⁴

In another recent case, discussed in Part III of this Article, *infra* the stakes were high as well. In the wake of a standard-setting process to identify a low emissions gasoline formulation for use in California, the Federal Trade Commission (FTC) alleged that Union Oil of California (Unocal) restrained trade by participating in the standard-setting process and enforcing its patents for reformulated gasoline despite its "willful" refusal to inform a state agency and two industry councils of those interests.⁵ The royalties could amount to \$500 million annually.⁶

These cases arose in a process that serves significant economic and technological interests. There is a consensus recognizing the value of standard-setting, the process by which manufacturers and others join voluntarily to identify a potential for interoperability, efficiency, and reliability in manufacture or use. Standard-setting is a catalyst speeding technological development and contributing silently, but dramatically, to our economic well-being. With these benefits come an array of legal issues, intensified by standard-setting's location at the intersection of intellectual property law and antitrust law.

A quick reference to current law reviews and journals reveals that the subject of standard-setting organizations and their relationship to intellectual property law

¹ Appellant's Petition for Certiorari at 3, *Infineon Tech. AG v. Rambus*, No. 03-37, *cert. denied* 124 S. Ct. 227 (2003).

² *Rambus, Inc. v. Infineon Tech. AG*, 318 F.3d 1081, 65 U.S.P.Q.2d (BNA) 1705 (Fed. Cir. 2003).

³ Karen Talley, *Abreast of the Market: Rambus Rockets 38% as Court Clears Way to Collect on Patent*, WALL ST. J., Oct. 7, 2003, at C3.

⁴ Shawn W. Crispin, *World Stock Markets: Krung Thai Credit Quality Is Worry*, WALL ST. J., Oct. 8, 2003, at C16.

⁵ Complaint of the FTC at 15-16, *In re Union Oil Co. of Cal.*, No. 9305 (F.T.C. Mar. 4, 2003), available at <http://www.ftc.gov/os/adjpro/d9305/index.htm>.

⁶ Answer of Union Oil Co. of Cal. at 12, *In re Union Oil Co. of Cal.*, No. 9305 (F.T.C. Mar. 21, 2003), available at <http://www.ftc.gov/os/adjpro/d9305/index.htm>.

and antitrust law has captivated today's legal scholars. That captivation reflects the inherently complex issues and the economic stakes. Participation by owners of intellectual property in these standard-setting organizations carries with it many benefits, for themselves and for the U.S. economy, and many risks. Patentees whose technology is chosen for a standard see the immediate inflation of the value of their patents. However, those patentees also see that otherwise accepted, expected, and legal conduct takes on a new, riskier character.

Under current law, a company participating in a private standard-setting process assumes the risk of loss of its right to enforce patents or other intellectual property rights implicated in the standard. That company could be found liable for antitrust violations, carrying with it the risk of treble damages and attorney fees. On the other hand, participants run the risk of being sued for infringement of patents owned by another participant as well as being implicated in the standard.

The owners of intellectual property rights, the manufacturers of the resulting products, consumers, and the economy will be best served by the identification of a model that allows the effective operation of standard-setting organizations and yet minimizes or negates the risks that are associated with participation in standard-setting.

In this Article, I propose a radical solution to the standard-setting dilemma. Part II of this Article investigates standard-setting, standard-setting organizations, and the law surrounding them. Part III describes the standard-setting dilemma, including the three widely known and most relevant current instances in which patent holders have been accused of violating conditions of participation in standard-setting organizations. Part IV reviews the current literature, offering proposals for resolving the dilemma and determines that those proposals are deficient for all involved. Finally, in Part V, I present a model for the conditions of participating in standard-setting that offers substantial benefits over current practice. This model departs significantly from the current norms, but adoption of this model will enhance the standard-setting process by making it more effective and will diminish the uncertainties that accompany that process today. Adoption of this model will make the standard-setting process less subject to manipulation, litigation, and antitrust concerns. The owners of intellectual property who elect to participate in standard-setting processes will enjoy the fruits of their labor with little or no risk to their ability to enforce their rights as a result of that participation. Yet, the possible inequities in royalty valuation and infringement suits against participants which practice the standard will not occur.

II. STANDARD-SETTING ORGANIZATIONS

A. STANDARD-SETTING ORGANIZATIONS AS A CATALYST FOR TECHNOLOGICAL DEVELOPMENT

This is the age of “the ever-whirling wheel of change,”⁷ in which technological change is occurring at a pace unlike any other time in the history of the world.⁸ Just one year before the Wright Brothers launched their flying machine in 1903, Marconi severed the dependence on physical connection by broadcasting across the Atlantic Ocean.⁹ Merely twenty years later, Zworykin and Farnsworth, among others, moved the world towards television.¹⁰ Ten years later, J.V. Atanasoff conceived and built the first electronic computer.¹¹ About that time, William Shockley succeeded in reducing diodes to transistors.¹² After another twenty years, Robert Noyce and Jack Kilby each further refined the transistor by devising the integrated circuit, opening the way for the personal computer.¹³ With the passage of another ten years, J.C.R. Licklider, Leonard Kleinrock, Ray Tomlinson, and their colleagues devised ARPANET, inaugurating the Internet.¹⁴ Twenty years later, Tim Berners-Lee and others devised the World Wide Web.¹⁵

There are many examples of the way in which private standards improve American lives: (1) in standards for the manufacture and maintenance of automobiles,¹⁶ (2) in a national code used by local jurisdictions in defining the minimum standards for various trades in residential and commercial buildings,¹⁷

⁷ EDMUND SPENSER, *THE FAERIE QUEEN*, Book VII (Mutabilitie), Canto VI, Stanza 1 (“The ever-whirling Wheel Of Change; the which of all mortal things doth sway.”). This is infinitely more apropos now than when Spenser wrote this phrase more than four hundred years ago.

⁸ See generally HAROLD EVANS ET AL., *THEY MADE AMERICA, FROM THE STEAM ENGINE TO THE SEARCH ENGINE: TWO CENTURIES OF INNOVATORS* (2004).

⁹ 18 *THE ENCYCLOPEDIA AMERICANA* 304 (2003) (Grolier Inc. Int’l ed., 2003).

¹⁰ 26 *id.* at 447-48.

¹¹ *ENCYCLOPEDIA OF COMPUTER SCIENCE* 109-10 (Anthony Ralston et al. eds., 4th ed. 2000).

¹² *Id.* at 892-93.

¹³ *Id.* at 1251.

¹⁴ *Id.* at 916.

¹⁵ *Id.* at 1869. For his achievement, Mr. Berners-Lee has been knighted by Queen Elizabeth and recently received the \$1.2 million first Millennium Technology Prize of the Finnish Technology Award Foundation.

¹⁶ See, e.g., SOC’Y OF AUTO. ENGR’RS, *MECHANICAL AND MATERIAL REQUIREMENTS FOR EXTERNALLY THREADED FASTENERS*, Doc. No. J429 (1999), available at <http://www.sae.org/>.

¹⁷ BLDG. OFFICIALS & CODE ADM’RS, *NATIONAL BUILDING CODE COMPLIANCE MANUAL: 1996 BOCA NATIONAL BUILDING CODE* (13th ed. 1996).

(3) in registration of domain names in operation of the internet,¹⁸ and (4) in standards for many of the essential components of personal computers.¹⁹

To put the significance of standard-setting in a perspective, consider how much more convenient it would be to purchase a standard ink cartridge for your printer. Rather than being held captive to the original manufacturer of a printer, consumers would be able to find a generic cartridge and reap the benefits of competition based upon the materials, not the patented design of the original manufacturer. Standard-setting provides the opportunity for interoperability, consumer convenience, and enhanced price competition.²⁰

The adoption of a single standard for an aspect of technology allows research and development to focus on evasive areas of technology and allows the market to focus competition on those other areas.²¹ Standard-setting spurs technological progress and increases interoperability among competing brands. Interoperability, in turn, provides consumers with enhanced confidence in their purchasing decisions.²² They are less likely to be marginalized by the purchase of one brand over another. That is, increased interoperability means that a consumer's choice of one manufacturer's product over another is less likely to confine her to that manufacturer's accessories or replacement parts.

Three different means have evolved for setting-standards. First, standard-setting can occur de facto when one source dominates the marketplace. The dominating company calls the technological tune. Its competitors are forced to seek licenses or work around the development. That domination will continue until a competitor-David succeeds in creating a substitute technology to defeat Goliath. Goliath, however, risks antitrust liability if it overplays its hand²³ or

¹⁸ Registry Agreement between Internet Corporation for Assigned Names and Numbers and Network Solutions Inc. (May 25, 2004), *available at* <http://www.icann.org/tlds/agreements/verisign/registry-agmt-org-25may01.htm>.

¹⁹ See VIDEO ELECS. STANDARDS ASS'N, VESA DIGITAL FLAT PANEL STANDARD (ver. 1 1999), *available at* <http://www.vesa.org/summary/sumdfp.htm>.

²⁰ One may argue that the profit realized from the sale of printer ink cartridges allows companies to offer their printers at lower prices than would be the case if there were an industry standard for a common printer cartridge.

²¹ Dan L. Burk & Mark A. Lemley, *Policy Levers in Patent Law*, 89 VA. L. REV. 1575, 1603-07 (2003) ("A growing number of economists and legal scholars have focused on cumulative innovation, in which a final product results not just from an initial invention, but from one or more improvements to that invention.").

²² See Patrick D. Curran, *Standard-Setting Organizations: Patents, Price Fixing, and Per Se Legality*, 70 U. CHI. L. REV. 983, 984-91 (2003) (discussing the benefits of private standard-setting interoperability, network effects, innovation, and its critical relationship to research and development).

²³ David A. Balto, *Standard Setting in a Network Economy*, Speech before Cutting Edge Antitrust Law Seminars International (Feb. 17, 2000), *transcript available at* <http://www.ftc.gov/speeches/other/standardsetting.htm> (discussing leveraging as a means by which a monopolist

attempts to use its dominance in one field to dominate related markets by illegally limiting competition.²⁴

In the presence of a monopoly, the consumer is likely to pay more for goods than if there were competition.²⁵ With the absence of competition, the increased price will be the highest price the market will bear. The *de facto* means is not the most efficient means to set a standard. The dominating party is likely to choose a standard that maintains its primacy and maximizes its profits. The chosen standard will only be the most effective or least expensive alternative by coincidence.

A second means of standard-setting occurs through the exercise of governmental power, often in areas of consumer protection, health, or safety concerns. This form of standard-setting takes place at all levels of government and emanates from powers conferred by constitution, statute, or regulation. Governmental bodies either generate their own standard or adopt a standard that is the product of a private standard-setting organization. In either case, depending upon the significance of or controversy surrounding the standard, governmental bodies will use either open, formal administrative processes,²⁶ or informal processes intended to allow all those affected to voice their views. Such processes are designed to achieve the best result by relying on objectivity and either the absence of competing interests or the identification and balancing of competing interests.

While considering an example of the governmental form, this Article focuses on the third means—private standard-setting. Private standard-setting is the process by which manufacturers and others join voluntarily and deliberate over a standard. By its nature, this process is relatively free from direct governmental regulation.²⁷

Private standard-setting offers advantages over *de facto* and governmental standard-setting. Private standard-setting combines broad participation by interested parties who would be affected by the standard, mirroring the

protects its market dominance in one area by (1) bundling its product to the next generation product or (2) manipulating standards, particularly interfaces, to exclude competitors).

²⁴ *Id.* (citing *Eastman Kodak Co. v. Image Technical Servs., Inc.*, 504 U.S. 451 (1992)).

²⁵ Some scholars advocate that a monopoly is the best model to assure economic efficiency. *See, e.g.,* David A. Balto & Andrew M. Wolman, *Intellectual Property and Antitrust: General Principles*, 43 IDEA 395, 412-15 (2003); Burk & Lemley, *supra* note 21, at 1601-06 (discussing the theories of Joseph A. Schumpeter and Edmund W. Kitch). Balto and Wolman's work is a comprehensive study of antitrust considerations.

²⁶ *E.g.,* Administrative Procedure Act, 5 U.S.C. §§ 551-559, 701-706 (2000); Federal Advisory Committee Act, 5 U.S.C. §§ 1-12 (2000).

²⁷ Some scholars have proposed interposing some form of governmental intervention. *See infra* Part IV (discussing current proposals).

governmental means. In addition, private standard-setting provides a relative freedom from political influences often associated with governmental action. Private standard-setting also offers flexibility in time and method that may not be present in governmental standard-setting. The private standard-setting process is usually overseen by a Standard Setting Organization (SSO). Those organizations protect their role by adopting the processes and requiring conditions of participation intended to assure objectivity and freedom from domination by one participant.

Private standard-setting not only has a place in our modern world, but also offers the ability to produce the large number of standards that will be necessary to speed future technological development.²⁸ However, there is a fly in the ointment: Substantial risks to the effective operation of standard-setting processes have developed from both an intellectual property and antitrust perspective.

B. AT THE CONFLUENCE OF INTELLECTUAL PROPERTY LAW AND ANTITRUST LAW

Recently, articles addressing standard-setting organizations and the issues confronting them have abounded.²⁹ That attention reflects the fact that standard-setting lies at the intersection of two powerful areas of the law: intellectual property and antitrust.³⁰ There is a natural tension between these two areas of law.³¹

The creation and enforcement of intellectual property rights is a conceptual contradiction. The Constitution authorizes³² and Congress has devised³³ a system that values the creation of devices and processes and the communication of ideas as a means to stimulate competition by rewarding that creativity with a grant of

²⁸ Dawn C. Nunziato, *Freedom of Expression, Democratic Norms, and Internet Governance*, 52 EMORY L.J. 187 (2003); Phillip J. Weiser, *Internet Governance, Standard Setting, and Self-Regulation*, 28 N. KY. L. REV. 822 (2001).

²⁹ See *infra* Part IV.

³⁰ Mark A. Lemley, *Intellectual Property Rights and Standard-Setting Organizations*, 90 CAL. L. REV. 1889 (2002); Michael J. Meurer, *The Interface Between Intellectual Property Law and Antitrust Law: Vertical Restraints and Intellectual Property Law: Beyond Antitrust*, 87 MINN. L. REV. 1871 (2003). The Lemley article is an invaluable resource in the study of standard-setting organizations.

³¹ See Balto & Wolman, *supra* note 25 (listing procompetitive and anticompetitive effects of intellectual property rights).

³² U.S. CONST. art. I, § 8, cl. 8 ("To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.").

³³ See 35 U.S.C. § 271(a) (2000); see also 17 U.S.C. § 106 (2000).

legal monopolies. Monopolies, however, are commonly recognized as economically anticompetitive.³⁴

The grant of a patent is the grant of a right on the part of the patentee to exclude others from making, using, offering for sale or selling the patented invention.³⁵ Some defendants in patent infringement suits have asserted violations of antitrust law as a defense where the patentee has refused to license its patents or copyrights.³⁶ Antitrust authorities believe that the current state of patent law may be worthy of additional antitrust scrutiny.³⁷ Thus, owners of patents implicated in a standard are the beneficiaries of these rights, the value of which is compounded by having been chosen for the standard.

On the other hand, monopolies resulting from market action also present a conceptual contradiction. In a competitive world, the monopoly occurs by attaining market efficiencies, satisfying customers, presenting a convenience, or just being the best product or service on the market.³⁸ The monopoly represents the attainment of the ultimate position possible in a free market. All of the less efficient competitors have been vanquished from the marketplace.

It is then that a monopoly endangers the competitive market that spawned it. No longer having competitors to stoke the flames of competition, the monopoly will become slothful.³⁹ It may become jealous of potential rivals, using its

³⁴ Balto & Wolman, *supra* note 25, at 401 ("Monopoly power is defined as: 'the power to control prices or exclude competition.'") (quoting *United States v. E.I. DuPont de Nemours & Co.*, 351 U.S. 377, 391 (1956)).

³⁵ 35 U.S.C. § 271(a) ("Except as otherwise provided in this title, whoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States or imports into the United States any patented invention during the term of the patent therefor, infringes the patent.").

³⁶ The courts have generally found no violation for a patent owner's mere refusal to license on its own terms to whomever it wishes. *See, e.g., CSU, LLC v. Xerox Corp.*, 203 F.3d 1322, 53 U.S.P.Q.2d (BNA) 1852 (Fed. Cir. 2000).

³⁷ *See* Balto & Wolman, *supra* note 25, at 473-74. The authors list four concerns expressed by then FTC Chairman Timothy Muris before the American Bar Association Section Fall Forum. Those four concerns are: (1) the increase in the number of patents, (2) the increased length of patent term, (3) the increase in scope of patents, and (4) the role of Federal Circuit in "evolving intellectual property jurisprudence." *See also* Timothy J. Muris, *Looking Forward: The Federal Trade Commission and the Future Development of U.S. Competition Policy*, 2003 COLUM. BUS. L. REV. 359 (2003).

³⁸ Burk & Lemley, *supra* note 21, at 1603 ("Kitch's prospect theory strongly emphasizes the role of a single patentee coordinating the development, implementation, and improvement of an invention."). *Compare* Balto & Wolman, *supra* note 25, at 398 (commenting on "deadweight loss" resulting from monopolies), *with* *United States v. Aluminum Co. of Am.*, 148 F.2d 416, 430, 65 U.S.P.Q. (BNA) 6, 18 (2d Cir. 1945) ("A single producer may be the survivor out of a group of active competitors, merely by virtue of his superior skill, foresight and industry The successful competitor, having been urged to compete, must not be turned upon when he wins.").

³⁹ Burk & Lemley, *supra* note 21, at 1604 ("Ken Arrow has argued that competition, not monopoly, best spurs innovation because, to simplify greatly, companies in a competitive

domination of the marketplace to manipulate pricing or to deny others entry into the marketplace. This conduct would rob the consumer of the benefits of the free market.⁴⁰

Enter antitrust law. The common law recognized the dire effects of anticompetitive conduct before the enactment of the Sherman Act and subsequent antitrust statutes.⁴¹ Congress has empowered the Department of Justice and the Federal Trade Commission to protect the consumer from anticompetitive conduct.⁴² A recent chairman of the Federal Trade Commission has identified standard-setting and intellectual property as “an area in which the agency is devoting substantial resources to identify enforcement targets—the nexus between intellectual property . . . and antitrust.”⁴³

marketplace will innovate in order to avoid losing, while monopolists can afford to be lazy.”).

⁴⁰ *Id.* at 1601-02. Fundamental to this conclusion are three assumptions. First, Kitch postulates that “a patent ‘prospect’ increases the efficiency with which investment in innovation can be managed [T]echnological information is a resource which will not be efficiently used absent exclusive ownership” *Id.* Second, Kitch assumes that no one is likely to make significant investments searching for ways to increase the commercial value of a patent unless he has made previous arrangements with the owner of the patent. *Id.* This puts the patent owner in a position to coordinate the search for technological and market enhancement of the patent’s value so that duplicative investments are not made and so that information is exchanged among the searchers. Burk and Lemley go on to conclude that competition is necessary to extract Kitch’s benefits of monopoly. *See id.* This debate mirrors the debate of incentives relevant to standard-setting.

⁴¹ *See Oregon Steam Navigation Co. v. Winsor*, 87 U.S. (20 Wall.) 64, 68 (1873) (discussing public policy objections to constraint of trade); *Alger v. Thatcher*, 36 Mass. 51, 54 (1837); *see generally* PHILIP E. AREEDA & HERBERT HOVENKAMP, *ANTITRUST LAW, AN ANALYSIS OF ANTITRUST PRINCIPLES AND THEIR APPLICATION* ¶ 104 (2000).

⁴² *See* 15 U.S.C. § 1 (2000), which states:

Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is declared to be illegal. Every person who shall make any contract or engage in any combination or conspiracy hereby declared to be illegal shall be deemed guilty of a felony, and, on conviction thereof, shall be punished by fine not exceeding \$ 10,000,000 if a corporation, or, if any other person, \$ 350,000, or by imprisonment not exceeding three years, or by both said punishments, in the discretion of the court.

Section 2 subjects “[e]very person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations” to the same liability. 15 U.S.C. § 2 (2000).

The source of the FTC’s authority is 15 U.S.C. § 45 (2000). At section 45(a)(2) the Commission is directed to prevent the use of “unfair methods of competition in or affecting commerce and unfair or deceptive acts or practices in or affecting commerce.”

⁴³ Muris, *supra* note 37, at 390. Alternatively, Congress has acted to protect the formation of joint ventures for the purpose of carrying on research and development. 15 U.S.C. § 4301 (2000). The Department of Justice and the FTC have produced guidelines to aid firms in licensing intellectual property and collaborating. U.S. DEPT. OF JUSTICE & FTC, *ANTITRUST GUIDELINES FOR*

Thus, tension exists between intellectual property rights and anticompetitive conduct.⁴⁴ The operation of standard-setting organizations represents a collision of these two powerful forces. The law has yet to produce a clear path for resolution of this tension. This uncertainty and the substantial economic stakes have focused attention on and have stimulated the study of private standard-setting.

III. THE PROBLEM

A. THE THREAT TO STANDARD-SETTING

The uncertainties attendant to the current model for private standard-setting threaten its effectiveness. Given the litigation that has arisen from involvement in standard-setting processes, attorneys for companies with large IP holdings may have second thoughts about advising their clients to continue to participate, either as an owner of IP or a potential licensee of a resulting standard.⁴⁵ The basis for that concern is that their clients, whether patent owners or licensees, may be subject to protracted litigation in the courts or before the Federal Trade Commission.⁴⁶

Today, the owner of IP rights implicated in an adopted standard is at risk of losing the ability to enforce its statutory rights. Also, the participant-user of the standard may have invested in complying with the adopted standard in reliance on the conditions of participation, principally the duty of participants to disclose related patents, only to find that the IP owner has not fully disclosed and has sued the participant for infringement for practicing the standard. The SSO is confronted with the options of making the conditions of participation ironclad to protect the participant-licensees, while risking the loss of participation of IP

THE LICENSING OF INTELLECTUAL PROPERTY (1995), available at <http://www.ftc.gov/opa/1995/04/intellect.htm>; U.S. DEPT OF JUSTICE & FTC, ANTITRUST GUIDELINES FOR COLLABORATIONS AMONG COMPETITORS (2000), available at <http://www.ftc.gov/os/2000/04/ftcdojguidelines.pdf>.

⁴⁴ See *Atari Games Corp. v. Nintendo of Am., Inc.*, 897 F.2d 1572, 1576, 14 U.S.P.Q.2d (BNA) 1034, 1037 (Fed. Cir. 1990) ("[T]he aims and objectives of patent and antitrust laws may seem, at first glance, wholly at odds. However, the two bodies of law are actually complementary, as both are aimed at encouraging innovation, industry and competition.").

⁴⁵ Michael G. Cowie & Joseph P. LaVelle, *Patents Covering Industry Standards: The Risks to Enforceability Due to Conduct Before Standard-Setting Organizations*, 30 AIPLA Q.J. 95 (2002). The list of relevant questions about SSO disclosure requirements is located at 101. The Cowie and LaVelle article is a particularly valuable work.

⁴⁶ See discussion *infra* of infringement litigation brought by Unocal and Rambus and actions brought by the FTC against Dell, Unocal, and Rambus.

owners, or relying on good faith compliance that may contribute to the participant-licensee's false sense of security.⁴⁷

The current disclosure and licensing policies of the American National Standards Institution (ANSI) and the Joint Electron Device Engineering Council (JEDEC) reflect many of the issues associated with SSO participation.⁴⁸ The

⁴⁷ Curran, *supra* note 22, at 992:

Patent owners need only promise to supply "fair," "reasonable," 'nondiscriminatory' licenses to SSO members; beyond that requirement, SSO patent policies offer no guidance as to what specific license terms should look like, nor do they include penalty provisions for non-compliance. SSOs leave this language intentionally vague in order to avoid liability for price fixing.

Id. See also Cowie & LaVelle, *supra* note 45, at 102 ("SSOs have been reluctant to specify or become involved in setting royalty rates for patented technology for fear that they will be accused of price fixing or another violation of antitrust laws."). Moreover, Gray states:

Typically, patent policies require that members disclose, prior to any vote on a standard, the existence of any intellectual property or pending patent applications that may relate to a standard under consideration. Advance notice of asserted patent rights allows for infringement and licensing issues to be dealt with during the standard-setting process, through either development of the standard around existing patent rights or through negotiation of licenses with the patent holder simultaneously to the promulgation of the standard.

Jennifer L. Gray, *Internet Standard Setting Bodies: Antitrust Guidelines*, in *PLI'S 21ST ANNUAL INSTITUTE ON COMPUTER LAW* at 515, 530 (PLI Patent, Copyright, Trademarks, and Literary Property Handbook Series No. 637, Feb.-Mar. 2001).

⁴⁸ For example, the American National Standard Institute (ANSI) patent policy allows standards to be developed around a patented technology. See *infra* Part V (discussing the duty to disclose).

What follows is a selected portion of ANSI's Patent Policy:

3.1 ANSI patent policy—Inclusion of Patents in American National Standards

There is no objection in principle to drafting a proposed American National Standard in terms that include the use of a patented item, if it is considered that technical reasons justify this approach.

If the Institute receives a notice that a proposed American National Standard may require the use of a patented invention, the procedures in this clause shall be followed.

3.1.1 Statement from patent holder—Prior to approval of such a proposed American National Standard, the Institute shall receive from the identified party or patent holder (in a form approved by the Institute) either: assurance in the form of a general disclaimer to the effect that such party does not hold and does not currently intend holding any invention the use of which would be required for compliance with the proposed American National Standard or assurance that:

- a) a license will be made available without compensation to the applicants desiring to utilize the license for the purpose of implementing the standard;
- or
- b) a license will be made available to applicants under reasonable terms and conditions that are demonstrably free of any unfair discrimination.

3.1.2 Record of statement

A record of the patent holder's statement shall be placed and retained in the

ANSI policy expresses an expectation that participants hold no patent, "the use

files of the Institute.

3.1.3 Notice

When the Institute receives from a patent holder the assurance set forth in a) or b) above, the standard shall include a note as follows:

NOTE: The user's attention is called to the possibility that compliance with this standard may require use of an invention covered by patent rights.

By publication of this standard, no position is taken with respect to the validity of this claim or of any patent rights in connection therewith. The patent holder has, however, filed a statement of willingness to grant a license under these rights on reasonable and nondiscriminatory terms and conditions to applicants desiring to obtain such a license. Details may be obtained from the standards developer.

3.1.4 Responsibility for identifying patents

The Institute shall not be responsible for identifying all patents for which a license may be required by an American National Standard or for conducting inquiries into the legal validity or scope of those patents that are brought to its attention.

AM. NAT'L STANDARDS INST., GUIDELINES FOR IMPLEMENTATION OF THE ANSI PATENT POLICY (1997), *available at* <http://public.ansi.org/ansionline/Documents/>.

To the same effect, consider Joint Electron Device Engineering Council's (JEDEC) Patent Policy, dated June 20, 2003:

All participants in JEDEC formulating committees are expected to familiarize themselves with the Patent Policy and comply with it. Among other things, the Patent Policy requires the early disclosure of known patents and patent applications that are or may be relevant to the work of the formulating committee. This duty extends to the patent owner and any other participant on the formulating committee with knowledge of the patent or patent application. Questions of patent policy interpretations should be addressed to the JEDEC legal department. (See *Federal Trade Commission v. Dell Computer Corp.*, FTC File 9310097.)

Failure to disclose relevant patents or pending patents could result in the loss of those patent rights.

JOINT ELECTRON DEVICE ENG'G COUNCIL, JEDEC PATENT POLICY (2003) (citations omitted), *available at* http://www.JEDEC.org/Home/manuals/JEDEC_Patent_Policy_stmt.pdf.

The policy is manifested by section 5.1, which requires ballots to contain a notice that "[i]f anyone receiving this ballot is aware of any patents (granted or pending) involving [sic] in this ballot, check here and notify the committee, citing the applicable patent numbers."

JOINT ELECTRON DEVICE ENGINEERING COUNCIL, JEDEC MANUAL OF ORGANIZATION AND PROCEDURE (2003), *available at* <http://www.JEDEC.org/Home/manuals/JM21L.pdf>.

Other conditions are discussed at sections 8.2 and 8.3 and Appendices A and B. Section 8.2 provides, among other things:

If the committee indicates that the standard requires the use of patented items, then the committee chairperson must receive a written assurance from the organization holding rights to such patents that a license will be made available to applicants desiring to implement the standard either without compensation or under reasonable terms and conditions that are demonstrably free of any unfair discrimination.

of which would be required for compliance with the proposed . . . standard” or that the participant-patent owner would commit licensing on a royalty-free basis or under reasonable terms and conditions (RAND). ANSI assumes no obligation to search for relevant patents and leaves the licensing to the participant-patent owner and other participants.⁴⁹ ANSI’s policy does not expressly encompass patent applications and does not discuss a remedy for a participant’s failure to comply.

JEDEC’s disclosure policy covers patents and patent applications “that are or may be relevant to the work of the formulating committee.”⁵⁰ The duty extends “to the patent owner and any other participant on the formulating committee” or, pursuant to article 5.1, to “anyone receiving this ballot.”⁵¹ The JEDEC policy passively anticipates that a disclosing participant-patent owner or applicant would commit to licensing the other participants also on a royalty-free basis or under reasonable terms and conditions.⁵² The JEDEC policy makes no commitment of confidentiality in the disclosure of patent applications.⁵³ Disclosure informs the SSO and other participants that the disclosing party has an interest and that its views may be self-centered and not directed toward arriving at the most effective standard. Disclosure also may enable the participants to avoid adopting one participant’s patented technology as the standard. SSOs impose a duty to disclose to protect the standard-setting process from antitrust liability.⁵⁴ As demonstrated by the ANSI and JEDEC policies, the duty to disclose is often joined with a duty to license under preset conditions, principally royalty-free licensing or licensing under reasonable terms and conditions.⁵⁵

Prior to adoption of the standard, a patentee whose patent is ultimately adopted competes in the marketplace against competitors, realizing success because of advantages of price, performance, availability, or other factors that underlie the purchasing decisions of customers in that market. That value has become recognized in legal scholarship as *ex ante* valuation; that is, the technology’s valuation prior to its adoption as the standard.⁵⁶

If a standard-setting process adopts a standard that implicates a patentee’s technology, the patentee in most, if not all, situations becomes the controlling

⁴⁹ AM. NAT’L STANDARDS INST., *supra* note 48, ¶ 3.1.4.

⁵⁰ JOINT ELECTRON DEVICE ENG’G COUNCIL, JEDEC PATENT POLICY, *supra* note 48.

⁵¹ *Id.*

⁵² *Id.*

⁵³ *Id.*

⁵⁴ See Curran, *supra* note 22; Cowie & LaVelle, *supra* note 45.

⁵⁵ See AM. NAT’L STANDARDS INST., *supra* note 48; JOINT ELECTRON DEVICE ENG’G COUNCIL, JEDEC PATENT POLICY, *supra* note 48.

⁵⁶ David J. Teece & Edward F. Sherry, *Standards Setting and Antitrust*, 87 MINN. L. REV. 1913 (2003).

force in that technology market. Based upon that acquired status, the participant-patentee benefits from inflation of its technology's value; that is, *ex post* valuation or the increased value of the technology associated with the adoption of the patent as a standard.⁵⁷ Some see this inflation as a windfall.⁵⁸ Others believe that the selection demonstrates the inherent value of the technology and entitles the owner to the fruits of its labor.⁵⁹

All the while, from the participant-patent owner's perspective, the specter of antitrust enforcement hangs over its participation, holding the potential to deny the patent owner the right to enforce its interest in the patent.

There is a market for participation in SSO standard-setting activities. Diverse participation is important for a SSO's standard-setting process to arrive at the best standard. Membership and participation in SSOs are voluntary. By choosing to participate in the deliberations of the SSO, a firm may advocate the interests of its customers and of its own technology. Should it choose not to participate in setting a standard important to its business, a firm gives up the opportunity to voice views that serve its business interests or its participation in identifying the most effective standard.

As exemplified by the ANSI and JEDEC policies, SSOs rely on informal means to gain compliance with the conditions of participation rather than using enforceable means, such as a contract with the participants.⁶⁰ A system of enforcement would assure that breach of the conditions of participation would result in some form of damages.

SSOs are likely reluctant to create a system of enforcement lest participation among technology firms wane. When the risks of participation grow too large or the benefits of participation diminish sufficiently, firms may choose not to participate, reducing the effectiveness of private standard-setting. Under the current unstable state of the law, there are sufficient legal risks to warrant a potential participant to carefully weigh the risks and benefits of participation.⁶¹

⁵⁷ *Id.* at 1938.

⁵⁸ See Mark R. Patterson, *Antitrust and the Costs of Standard-Setting: A Commentary on Teece and Sherry*, 87 MINN. L. REV. 1995 (2003).

⁵⁹ James C. DeVellis, *Patenting Industry Standards: Balancing the Rights of Patent Holders with the Need for Industry-Wide Standards*, 31 AIPLA Q.J. 301, 350 (2003) ("RAND licensing best provides corporations with the necessary initial incentive to develop technology, while maximizing the availability of that technology in any subsequent standard.").

⁶⁰ Lemley, *supra* note 30, at 1954-57 (finding that SSO intellectual property rules are "a 'messy' form of private ordering").

⁶¹ Judge Rader wrote in *Rambus, Inc. v. Infineon Tech. AG*, 318 F.3d 1081, 1102 n.10, 65 U.S.P.Q.2d (BNA) 1705, 1720 n.10 (Fed. Cir. 2003): "Just as lack of compliance with a well-defined patent policy would chill participation in open standard-setting bodies, after-the-fact morphing of a vague, loosely defined policy to capture actions not within the actual scope of that policy likewise would chill participation in open standard-setting bodies."

The current policies of ANSI and JEDEC reflect a dependence on a duty to disclose.⁶² However, the expression of the duty to disclose is vague. At the same time, they reflect an absence of an express enforcement system. As a result, these SSOs must rely only upon the good faith compliance of the participants. The current model imposes large risks on the participant-patent owner and the other participants. The following scenarios provide insight into the issues that threaten private standard-setting.

B. THREE SCENARIOS

1. *Company A Is a Member of an SSO in the Field of Electronic Games.* It participates during deliberations over several months directed at establishing a standard for video graphics. The standard-setting organization requires and orally reminds its participants that they have a duty to disclose "patents that relate to the standard" at the time the committee votes on the standard. The SSO has a policy that it will not adopt a standard that is owned by one firm.

Company A is represented by an engineer who has no knowledge of Company A's patent and reads on the standard signing the ballot accordingly. Subsequently, Company A informs the SSO and its co-participants that it has a patent that is implicated in the standard and that it intends to pursue its rights to maximize its royalty income from that patent, and it does, in fact, bring suit against Company B, one of its co-participants, alleging infringement by Company B's practice of the standard.

2. *Company A Participates in a Standard-Setting by a State Environmental Agency for a Fuel Formula to Reduce Emissions.* The agency imposes no duty to disclose. There is a question as to whether the rulemaking is quasi-legislative or quasi-judicial in nature. Company A has applied for a patent on a fuel formula for the same purposes, but does not disclose it to the agency or other participants, including competitors.

Company A advocates a standard that is broader than its formula, but the agency adopts the narrower standard that implicates Company A's formula. Company B participated in the standard-setting process and makes a substantial investment in preparation for producing gasoline that complies with the standard. Company A's patent issues, and it sues Company B for infringement.

3. *Company A Designs Computer Chips.* It arrives at an advanced design and applies for a patent. It joins an SSO that is developing a standard for computer chips. Company A participates, and its representatives bring information back

⁶² See AM. NAT'L STANDARDS INST., *supra* note 48, ¶ 31.1; JOINT ELECTRON DEVICE ENG'G COUNCIL, JEDEC PATENT POLICY, *supra* note 48, §§ 5.1, 8.2.

to Company *A* about the designs under consideration. The company amends its application and divisional applications to cover the evolving standard.

The SSO communicates a duty to disclose IP interests in pending standards. Early in the process, Company *A* informs the participants of the written description of the pending application. Before votes on the pending standard are taken, Company *A* resigns from the SSO. The deliberations continue and a standard that implicates Company *A*'s patents—all of them divisional from the original application and several having issued—is adopted. Company *B* participated in the standard-setting and begins to manufacture chips that comply with the standard. Company *A* sues Company *B* for infringement of its patents.

For each scenario, what advice should (1) Company *A*'s General Counsel, (2) Company *B*'s General Counsel, or (3) the SSO's (or agency's) General Counsel each give to her client?

C. IP TOOLS

In these and other similar cases, the courts have struggled to decide whether the conduct of the patent owner has provided a legal basis for denying the infringement liability. Defendants have offered a medley of legal theories. The theories range from patent misuse to antitrust and from fraud to laches. The courts have shown a willingness to listen and in many cases have jury-rigged a remedy to fit the facts, but no single path or legal theory has emerged.⁶³

1. *Patent Misuse.* Assertion of patent misuse in standard-setting does not conform to the classic circumstance in which it is offered by an alleged contributory infringer as a defense when the patent owner has attempted to extend the breadth of its patent by tying its license to unpatented goods.⁶⁴ Courts would then have to adapt this doctrine to conform to the standard-setting situation. In standard-setting, the participant-patentee is not attempting to assert its patent against non-infringing items, but is asserting a patent not disclosed during the standard-setting deliberations.

Adaptation of the patent misuse doctrine to standard-setting would overcome a major criticism: The defendant-contributory infringer defeats his liability not

⁶³ See Cowie & LaVelle, *supra* note 45 (discussing various causes of action).

⁶⁴ Compare Janice M. Mueller, *Patent Misuse Through the Capture of Industry Standards*, 17 BERKELEY TECH. L.J. 623, 630 (2002) (advocating the use of the patent misuse doctrine in certain standard-setting situations), with Mark A. Lemley, *The Economic Irrationality of the Patent Misuse Doctrine*, 78 CAL. L. REV. 1599 (1990). See also Morgan Chu et al., *Patent Misuse Defenses and Antitrust*, 17 PLI'S SECOND ANNUAL INSTITUTE FOR INTELLECTUAL PROPERTY LAW at 831 (PLI Patents, Copyrights, Trademarks, and Literary Property Handbook Series No. 721, Oct.-Nov. 2002) (discussing a narrowing of the gap between assertion of patent misuse and antitrust law); see generally *Morton Salt Co. v. G.S. Suppiger Co.*, 314 U.S. 488, 493 (1942).

by the plaintiff-patentee's illegal acts toward the defendant, but by the plaintiff-patentee's acts toward the alleged actual infringer, who is not a party to the litigation. In other words, in its classic application, the plaintiff-patentee has not wronged the defendant, but the defendant is relieved of liability because of the plaintiff's acts toward the actual infringer.⁶⁵

The successful assertion of patent misuse in a standard-setting patent infringement suit also provides its advocates with their intended result, that is, an inability of the patentee-plaintiff to enforce its patent against a participant when the patentee failed to disclose the existence of its patent during the standard-setting process.⁶⁶ As will be seen, this remedy is also the same as is currently sought by the Federal Trade Commission in actions brought based upon anticompetitive harm.⁶⁷

2. *Laches*. Laches is an equitable doctrine. Normally, infringer-defendants offer this defense when (1) the patentee has actual or constructive knowledge of the alleged infringement, (2) the patentee delays pursuit of enforcement of the infringement for an unreasonable time, and (3) the delay prejudices the infringer.⁶⁸

⁶⁵ Congress reacted to the intersection of the theories of patent misuse and contributory infringement by enacting 35 U.S.C. § 271(c) and (d) (2000), which state:

(c) Whoever offers to sell or sells within the United States or imports into the United States a component of a patented machine, manufacture, combination or composition, or a material or apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use, shall be liable as a contributory infringer.

(d) No patent owner otherwise entitled to relief for infringement or contributory infringement of a patent shall be denied relief or deemed guilty of misuse or illegal extension of the patent right by reason of his having done one or more of the following: (1) derived revenue from acts which if performed by another without his consent would constitute contributory infringement of the patent; (2) licensed or authorized another to perform acts which if performed without his consent would constitute contributory infringement of the patent; (3) sought to enforce his patent rights against infringement or contributory infringement; (4) refused to license or use any rights to the patent; or (5) conditioned the license of any rights to the patent or the sale of the patented product on the acquisition of a license to rights in another patent or purchase of a separate product, unless, in view of the circumstances, the patent owner has market power in the relevant market for the patent or patented product on which the license or sale is conditioned.

⁶⁶ See Mueller, *supra* note 64, at 673.

⁶⁷ Balto & Wolman, *supra* note 25, at 420; see also *infra* Part III.D.

⁶⁸ A.C. Aukerman Co. v. R.L. Chades Constr. Co., 960 F.2d 1020, 22 U.S.P.Q.2d 1321 (Fed. Cir. 1992); Cowie & LaVelle, *supra* note 45, at 113.

The successful assertion of this defense does not prevent the patent owner from enforcing its patent. The doctrine merely prevents the patent owner from recovering damages occurring before the institution of the suit.⁶⁹ Therefore, laches does not provide a neat remedy when the patentee-plaintiff has not disclosed its patent in a standard-setting environment.⁷⁰ The alleged infringer could only assert this defense when the non-disclosing-patentee has not brought its infringement suit within a reasonable time.⁷¹

3. *Estoppel*. The courts have also used the equitable estoppel doctrine in standard-setting infringement cases. Alleged infringers offer this defense in instances in which (1) the patentee misleads the alleged infringer, (2) the alleged infringer relies on the misleading conduct, and (3) the alleged infringer would suffer material prejudice.⁷²

When estoppel is found, the patentee is denied enforcement of its patent. Where the disclosure requirement and its boundaries are clearly communicated, estoppel appears to suit the standard-setting process better than a laches theory. A court has found estoppel where the patentee participated in a standard-setting process, left before a standard was adopted, and did not notify the SSO of its patent's implication in the standard.⁷³ The court classified that the patentee's silence and failure to disclose was intentionally misleading conduct.⁷⁴ The court did not discuss whether the SSO actually had a policy requiring disclosure.⁷⁵

The courts have found an implied license on facts similar to those that would give rise to estoppel.⁷⁶ The Federal Circuit has distinguished an implied license

⁶⁹ Cowie & LaVelle, *supra* note 45, at 114.

⁷⁰ *Stambler v. Diebold, Inc.*, 11 U.S.P.Q.2d (BNA) 1709, 1715 (E.D.N.Y. 1988) (fashioning a remedy based upon the patentee's delay in asserting his patent after the standard was adopted).

⁷¹ Notwithstanding the prompt action by Unocal, the FTC complaint alleged that the affected gasoline producers made very large investments. This suggests that were this doctrine to be modified to fit the standard-setting scenario, the reliance period would begin during the deliberations and not the issuance of the patent. See Complaint of the FTC, *In re Union Oil Co. of Cal.*, No. 9305 (F.T.C. Mar. 4, 2003), available at <http://www.ftc.gov/os/adjpro/d9305/index.htm>; Answer of Union Oil Co., *In re Union Oil Co. of Cal.*, No. 9305 (F.T.C. Mar. 21, 2003), available at <http://www.ftc.gov/os/adjpro/d9305/index.htm>.

⁷² *Aukerman*, 960 F.2d at 1042-3; *Stambler*, 11 U.S.P.Q.2d at 1711; see Cowie & LaVelle, *supra* note 45, at 104 (citing *Wang Labs., Inc. v. Mitsubishi Elecs. Am., Inc.*, 103 F.3d 1571, 1580, 71 U.S.P.Q.2d (BNA) 1263, 1271 (Fed. Cir. 1997) and subsequent cases in which the court based estoppel on the patentee's failure to disclose).

⁷³ *Stambler*, at 1718.

⁷⁴ *Id.* at 960-1042.

⁷⁵ *Id.*; see also *Aukerman* at 1043-44 ("Moreover, silence alone will not create an estoppel unless there was a clear duty to speak, [citation omitted] or somehow the patentee's continued silence reinforces the defendant's inference from the plaintiff's known acquiescence that the defendant will be unmolested.").

⁷⁶ *Wang Labs.*, 103 F.3d at 1580 (citing *DeForest Radio Tel. Co. v. United States*, 273 U.S. 236,

from an estoppel in that the implied license “looks for an affirmative grant of consent or permission to make, use, or sell” while equitable estoppel “focuses on misleading conduct suggesting that the patentee will not enforce patent rights.”⁷⁷

4. *Fraud*. Recently, in cases such as *Rambus, Inc. v. Infineon Technologies AG*,⁷⁸ the defendant in the infringement suit arising out of an alleged breach of a duty to disclose has counterclaimed for common law fraud. *Rambus* shows that juries may be receptive to such a counterclaim allegation.⁷⁹ The jury’s verdict and district court’s judgment in *Rambus*, however, were overturned on appeal.⁸⁰

Assertion of fraud as a remedy for breach of the duty to disclose poses a weakness in that, because it is a remedy of state law, its assertion would be inconsistent and its value less predictable. Patent owners may forum shop to minimize the opportunity for the defendant to successfully allege fraud. To this point, fraud has only been asserted as a counterclaim.⁸¹ As discussed later, I believe that it is not possible to describe the duty to disclose sufficiently for purposes of establishing fraud.⁸²

Scenario 3, *supra*, was a rough restatement of the facts in *Rambus*, arguably a blatant example of manipulation of participation in a standard-setting process. *Rambus*, the patent owner, sued Infineon, the participant and alleged infringer, in Federal District Court for infringement of fifty-seven claims on four of its

241 (1927)), states:

Any language used by the owner of the patent, or any conduct on his part exhibited to another from which that other may properly infer that the owner consents to his use of the patent in making or using it, or selling it, upon which the other acts, constitutes a license and a defense to an action for a tort.

⁷⁷ *Id.* at 1581.

⁷⁸ 155 F. Supp. 2d 668 (E.D. Va. 2001) [hereinafter *Rambus I*] (accounting for costs and fees), 164 F. Supp. 2d 743 (E.D. Va. 2001) [hereinafter *Rambus II*] (denying plaintiff’s motion for JMOL), *rev’d* 318 F.3d 1081, 65 U.S.P.Q.2d (BNA) 1705 (Fed. Cir. 2003) [hereinafter *Rambus III*] (The Federal Circuit: 1) vacated the JMOL of non-infringement; 2) reversed the JMOL on the SDRAM verdict; 3) affirmed the grant of JMOL “because the district court properly determined that substantial evidence did not support the jury finding that *Rambus* had a duty to disclose patents and applications before formal consideration of a standard”; and 4) vacated and remanded the award of attorney’s fees).

⁷⁹ *Rambus I*, 155 F. Supp. at 671 (“The jury awarded nominal damages in the amount of \$1 on each of the fraud claims (Count 10-actual fraud; Count 11-constructive fraud) and punitive damages in the amount of \$3,500,000.00 on the actual fraud claim.”). The court reduced the damages to \$350,000.

⁸⁰ *Rambus III*, 318 F.3d at 1106-07.

⁸¹ Query: Could a potential defendant, aware of a patent owner-participant’s failure to disclose, bring this action offensively, not waiting for the patent owner to sue? In *Rambus* there were no actual damages. The jury’s award as remitted by the court were punitive damages and attorney fees.

⁸² This Article argues that another model is needed and that reliance on the duty to disclose is futile. See *infra* Part V.

patents.⁸³ Infineon answered with a host of defenses,⁸⁴ but this discussion considers only the counterclaims for actual and constructive fraud.⁸⁵

In April 1990, Rambus filed a patent application relating to RDRAM, an advanced form of random access memory.⁸⁶ Subsequently, the application was segregated into ten divisional applications, each claiming the original priority date and each containing the original written description.⁸⁷

In December 1991, Rambus sat in on a meeting of the Joint Electron Devices Engineering Council (JEDEC) as a guest.⁸⁸ More recently, this organization is referenced as the JEDEC Solid State Technology Association,⁸⁹ and it is a standard-setting organization. In February of 1992, Rambus joined JEDEC.⁹⁰

JEDEC's manual stated its disclosure policy which included an obligation to disclose patents and patent applications.⁹¹ The manual also required that the: "chairperson . . . must . . . call to the obligation of all participants to inform the meeting of any knowledge they may have of any patents, or pending patents, that might be involved in the work they are undertaking."⁹²

⁸³ *Rambus III*, 318 F.3d at 1086.

⁸⁴ Infineon pled that (1) the four patents-in-suit were not infringed, were invalid and were unenforceable; (2) Rambus had breached its contract with JEDEC; (3) Infineon was a third-party beneficiary of that breached contract; (4) Rambus committed actual fraud while a member of JEDEC; (5) Rambus committed constructive fraud while a member of JEDEC; (6) Rambus obtained monopoly power in the relevant technology market in violation of the Sherman Act; (7) Rambus had attempted to obtain a monopoly in the relevant technology market in violation of the Sherman Act; and (8) Rambus violated the Racketeer Influenced and Corrupt Organizations Act, 18 U.S.C. §§ 1961-1968 (2000), by conduct at JEDEC. Answer of Infineon Tech. AG, *Rambus I*, 155 F. Supp. 2d 668 (No. Civ. A. 3:00CV524).

⁸⁵ *Rambus III*, 318 F.3d at 1096. The elements of fraud under Virginia law require proof by clear and convincing evidence of: "1) a false representation (or omission in the face of a duty to disclose), 2) of a material fact, 3) made intentionally and knowingly, 4) with the intent to mislead, 5) with reasonable reliance by the misled party, and 6) resulting in damages to the misled party." Judge Rader concluded that the duty to disclose under JEDEC's policy extended only to a patent that would be infringed by the standard. *Id.* at 1100-01.

⁸⁶ *Id.* at 1084.

⁸⁷ *Id.*

⁸⁸ *Id.* at 1085.

⁸⁹ JEDEC operates through various designated committees, each formed to consider specific types of standards. JEDEC's Committee JC-42.3 drafts standards for random access memory (RAM), a common component in computers, printers, and other electronic devices. JEDEC meetings are open meetings, but nonmembers must receive an invitation to attend. Minutes of the JEDEC meetings and copies of the published JEDEC standards are available to members and nonmembers alike.

⁹⁰ *Rambus III*, 318 F.3d at 1085.

⁹¹ *Id.*; see also JOINT ELECTRON DEVICE ENG'G COUNCIL, JEDEC PATENT POLICY, *supra* note 48 (concerning current JEDEC policies).

⁹² *Rambus III*, 318 F.3d at 1110. Note here that the companies are not required to contractually commit themselves to this duty. Further note that the duty, as expressed, implies that the duty is

The deliberations at issue were those of the JC-42.3 Subcommittee, which developed a standard relating to synchronous dynamic random access memory (SDRAM).⁹³ Participants usually met on a quarterly basis. Before being considered for adoption, the subcommittee discussed the proposal twice, and voted on a proposed standard using written ballots. A two-thirds majority was required, though a consensus was common. Once adopted, the subcommittee forwarded the proposed standard to the Council.

Rambus disclosed a patent that issued in 1993 which shared the same written description as the pending applications.⁹⁴ Another participant disclosed information concerning a related Rambus application to the World Intellectual Property Organization (WIPO).⁹⁵ Rambus' business plans revealed that the company was carrying out a scheme to amend its applications to cover the standard.⁹⁶ JEDEC adopted its SDRAM standard in November of 1993 with the result that, by 1999, JEDEC compliant SDRAM had effectively replaced DRAM technology.

Rambus ceased participating in the JC-42.3 committee in December 1995 and formally withdrew from JEDEC in June 1996.⁹⁷ After Rambus's resignation, JEDEC began formal consideration of a standard for double data rate-SDRAM (DDR-SDRAM), the successor to SDRAM. Prior to Rambus's withdrawal, JEDEC had discussed four technologies, that is, source-synchronous clocking, low-voltage swing signaling, dual clock edge, and on-chip phase locked loop/delay locked loop (PLL/DLL). JEDEC later included those four technologies in its DDR-SDRAM standard, which was published in 2000.⁹⁸

limited to the representative of the company, not the company itself. Additionally, note that the scope of the duty is not informative, that it, "might be involved in the work they are undertaking." And finally note that the duty to disclose extends patent applications and contains no reciprocal guarantee of confidentiality.

⁹³ *Id.* at 1085.

⁹⁴ *Id.*

⁹⁵ *Id.*

⁹⁶ Normally, amending one's patent application to cover a competitor's product is legal and expected conduct. *See* *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 909 n.2, 669 U.S.P.Q.2d (BNA) 1801, 1810 n.2 (Fed. Cir. 2004) (stating that "[t]he district court recognized that it is not improper for an applicant to broaden his claims during prosecution in order to encompass a competitor's products, as long as the disclosure supports the broadened claims"); *Kingsdown Medical Consultants, Ltd v. Hollister, Inc.*, 863 F.2d 867, 874 (Fed. Cir. 1988). Rambus' representatives at the JC-42.3 meetings reported back to the company their observations about the technical discussions. Rambus was accused of using the observations to amend the claims of its pending applications to cover the evolving standard.

⁹⁷ *Rambus III*, 318 F.3d at 1085.

⁹⁸ *Id.* at 1105.

Three counts went to the jury: actual fraud, constructive fraud and a violation of the Racketeer Influenced and Corrupt Organizations Act (RICO).⁹⁹ The jury found for Rambus on the RICO count.¹⁰⁰ However, it found Rambus liable for actual and constructive fraud.¹⁰¹ It awarded nominal actual damages but \$3.5 million in punitive damages.¹⁰² The district court then granted Rambus' motion for judgment as a matter of law as to the constructive fraud count, holding that constructive fraud under Virginia law may not occur for omission.¹⁰³ The district court denied the motion as to actual fraud and reduced the punitive damage award to \$350,000.¹⁰⁴ In a separate decision, the court awarded Infineon attorney fees of over \$7 million.¹⁰⁵

Appeal was then taken to the Federal Circuit. Judge Rader's decision for the majority provides a primer of the difficulties that accompany the duty to disclose. He reviewed the claim construction, and concluded that the JEDEC duty to disclose was more illusory than real and enforceable.¹⁰⁶ This Article discusses the portion of the Federal Circuit's decision relating to the duty to disclose in Part V.

The case is now back before the district court, with all the counts in the complaint reinstated. The district court has granted Infineon's motion to add a count covering unfair business practices under California law.¹⁰⁷

In a related case, *Micron Technology, Inc. v. Rambus, Inc.*,¹⁰⁸ Micron raised claims similar to those Infineon asserted. It alleged fraud by its failure to disclose to JEDEC monopolization and fraud.¹⁰⁹ Micron attempted to use the fraud verdict in the Infineon case through collateral estoppel.¹¹⁰ The district court held Micron's motion for summary judgment on infringement in abeyance but denied its motion as to all the other claims, including the assertion of collateral estoppel,

⁹⁹ 18 U.S.C. §§ 1961-1968 (2000).

¹⁰⁰ *Rambus I*, 155 F. Supp. 2d at 671.

¹⁰¹ *Id.*

¹⁰² *Id.*

¹⁰³ *Rambus II*, 164 F. Supp. 2d at 750.

¹⁰⁴ *Id.* at 747.

¹⁰⁵ *Rambus I*, 155 F. Supp. 2d at 692.

¹⁰⁶ *Rambus III*, 318 F.3d at 1102 ("A policy that does not define clearly what, when, how, and to whom the members must disclose does not provide a firm basis for the disclosure duty necessary for a fraud verdict.").

¹⁰⁷ CAL. BUS. & PROF. CODE § 17200 (2002); see *Rambus, Inc. v. Infineon Tech. AG*, 304 F. Supp. 2d 812 (E. D. Va. 2004). The FTC brought a complaint against Rambus, which I discuss in Part III.D, *infra*.

¹⁰⁸ 189 F. Supp. 2d 201 (D. Del. 2002).

¹⁰⁹ *Id.* at 202-03.

¹¹⁰ *Id.* at 203-04.

and noted that the Infineon trial did not establish that Micron had relied to its detriment on Rambus' alleged duty to disclose.¹¹¹

5. *Inequitable Conduct.* Successful pleading of inequitable conduct would render the patent unenforceable.¹¹² In *Union Oil Co. v. Atlantic Richfield Co.*,¹¹³ the court entered a decision denying a defense based upon Unocal's alleged inequitable conduct before the Patent and Trademark Office in not disclosing the patent's relationship to the California Air Resources Board's (CARB) standard-setting.¹¹⁴ On appeal, the State of California made a novel use of this argument when it asserted that Unocal's breach of a duty to disclose in CARB's standard-setting process and Unocal's amendment of its patent application to cover the standard were instances of inequitable conduct.¹¹⁵

6. *Private Antitrust Actions.* Defendants in an infringement suit have sought a remedy for restraint of trade in a plaintiff's failure to disclose in a standard-setting process.¹¹⁶ The remedy is significant when an antitrust violation is found, and includes treble damages and attorney fees.¹¹⁷ Historically, the courts have found antitrust violations in standard-setting situations when a conspiracy was present.¹¹⁸

Infineon's countersuit against Rambus included a count for monopolization arising from Rambus' participation in JEDEC.¹¹⁹ Research has disclosed no decisions in which a defense of restraint of trade has been successfully pled in a private standard-setting case for a patent owner's failure to disclose. Assertion of an antitrust violation predicated upon a duty to disclose should seriously consider the accuracy with which the duty to disclose was communicated.

¹¹¹ *Id.* at 213.

¹¹² *Hoffmann-La Roche, Inc. v. Promega Corp.*, 323 F.3d 1354, 1359, 66 U.S.P.Q.2d (BNA) 1385, 1388 (Fed. Cir. 2003).

¹¹³ 34 F. Supp. 2d 1208, 1222 (C.D. Cal. 1998).

¹¹⁴ *Id.*

¹¹⁵ See Amicus Curiae Brief of the State of California in Support of Defendants-Appellants' Petition for Panel Rehearing or Rehearing En Banc, *Union Oil Co. v. Atlantic Richfield Co.*, 208 F.3d 989, 54 U.S.P.Q.2d (BNA) 1227 (Fed. Cir. 2000) (No. 99-1066). Success of the State's theory would have elevated a duty to disclose in a standard-setting environment to an equitable duty having nothing to do with the patent application. The Federal Circuit denied the petition. The defendant's counterclaim did not raise inequitable conduct as a defense on the failure to disclose during the CARB rulemaking. The counterclaim alleged inequitable conduct in Unocal's prosecution of its patent applications for gasoline mixtures that Unocal had previously produced but not disclosed to the PTO. The district court awarded attorney fees to Unocal, attributing its decision in part to unsupported allegations of estoppel, implied license, unclear hands, and inequitable conduct.

¹¹⁶ *Rambus II*, 164 F. Supp. 2d at 746.

¹¹⁷ 15 U.S.C. §§ 1, 2 (2000).

¹¹⁸ See Balto, *supra* note 23, at 5-6.

¹¹⁹ *Rambus II*, 164 F. Supp. 2d at 746; see also *Micron Tech., Inc.*, 189 F. Supp. 2d at 203.

This cause of action has been asserted where a governmental body has been the standard setter.¹²⁰ In the governmental standard-setting context, freedom of expression issues arise. The courts have resolved that apparent conflict—the right to advocate a position before a governmental body—by defining a defense known as the *Noerr-Pennington* immunity,¹²¹ giving a person the right to petition his government, even in pursuit of a result that might be anticompetitive.¹²²

D. ANTITRUST TOOLS

In addition to the assertion of antitrust by a private party as discussed above, an intricate statutory regime vests the Department of Justice and the Federal Trade Commission with enforcement powers.¹²³ Thus far, the Justice Department has not intervened in private standard-setting, relating to the attempt to control the market by not disclosing related patents. The FTC, however, has brought actions against Dell, Unocal, and Rambus. The theory upon which it brings such actions is evolving. This section provides an overview of the FTC's causes of action and remedies in instances in which it asserts anticompetitive conduct in a patent owner's failure to disclose in a standard-setting process.

1. *Sherman Act*.¹²⁴ Section 2 of the Sherman Act establishes a private cause of action for attempted monopolization consisting of (1) the specific intent to destroy competition, (2) anticompetitive conduct, (3) a dangerous probability of achieving monopoly power, and (4) antitrust injury.¹²⁵ Section 2 also proscribes actual monopolization. The elements are (1) the accused party having a monopoly, (2) having engaged in anticompetitive conduct, and (3) having caused antitrust injury.¹²⁶

The Department of Justice and the Federal Trade Commission have joined to provide guidelines under which they analyze licensing practices and competitor

¹²⁰ E. R.R. Presidents Conference v. Noerr Motor Freight, Inc., 365 U.S. 127 (1966).

¹²¹ *Id.*; United Mine Workers of Am. v. Pennington, 381 U.S. 657 (1965). However, where the standard-setting is private, not governmental, the immunity does not apply. Allied Tube & Conduit Corp. v. Indian Head, Inc., 486 U.S. 492, 500 (1988).

¹²² Sessions Tank Liners, Inc. v. Joor Mfg., Inc., 17 F.3d 295, 299 (9th Cir. 1994), *cert. denied*, 513 U.S. 813 (1994) ("Because the injuries Sessions complains of are the result of governmental action, Joor is shielded by petitioning immunity from liability under the antitrust laws.").

¹²³ 15 U.S.C. §§ 1, 2, 45 (2000).

¹²⁴ 15 U.S.C. §§ 1-7 (2000).

¹²⁵ Spectrum Sports, Inc. v. McQuillan, 506 U.S. 447, 456 (1993); Balto & Wolman, *supra* note 25, at 397; Cowie & LaVelle, *supra* note 45, at 118.

¹²⁶ United States v. Grinnell Corp., 384 U.S. 563, 570-71 (1966); Balto & Wolman, *supra* note 25, at 397; Cowie & LaVelle, *supra* note 45, at 119-20.

collaborations, which are areas dominated by intellectual property rights.¹²⁷ In the licensing guidelines, the agencies lay out three “general principles”:

- (1) that intellectual property rights are “essentially comparable to any other form of property”; (2) that intellectual property rights do not inherently create objectionable market power; and (3) that the agencies recognize the procompetitive potential of licensing.¹²⁸

Nevertheless, those agencies have identified certain licensing arrangements that fix retail prices, allocate markets or customers, reduce output, or require certain boycotts¹²⁹ as not only anticompetitive, but per se anticompetitive, which is a classification not necessitating further analysis.¹³⁰ The agencies subject arrangements—such as horizontal restraints, resale price maintenance, tying arrangements, exclusive dealing, cross-licensing and pooling arrangements, grantbacks, and certain transfers of intellectual property rights—to a rule of reason analysis.¹³¹

2. *Federal Trade Commission Act.* The FTC is aggressively exercising its jurisdiction in standard-setting. It has initiated actions in *Dell*, *Unocal*, and *Rambus* based upon the breach of an alleged duty to disclose in a standard-setting process.¹³² Each of these actions indicates the FTC’s willingness to act as a surrogate for the respective SSO and other participants. The FTC’s assumption of the role as the forum of last resort hinders the standard-setting process by allowing the current vague communication of the duty to disclose to engender

¹²⁷ See U.S. DEPT OF JUSTICE & FTC, ANTITRUST GUIDELINES FOR THE LICENSING OF INTELLECTUAL PROPERTY, *supra* note 43.

¹²⁸ *Id.*; see also U.S. DEPT OF JUSTICE & FTC, ANTITRUST GUIDELINES FOR COLLABORATIONS AMONG COMPETITORS, *supra* note 43 (sharing the same considerations).

¹²⁹ U.S. DEPT OF JUSTICE & FTC, ANTITRUST GUIDELINES FOR THE LICENSING OF INTELLECTUAL PROPERTY, *supra* note 43, at 15.

¹³⁰ *Id.* at 15 (citing *FTC v. Super. Ct. Trial Lawyers Ass’n*, 493 U.S. 411, 433 (1990) (addressing an agreement among attorneys to refuse to compete for or accept appointments under the Criminal Justice Act program until the District of Columbia increased the fees was per se illegal); *Nat’l Soc’y of Prof’l Eng’rs v. United States*, 435 U.S. 679, 692 (1978) (stating that a society’s canon of ethics prohibiting the discussion of price with potential customer until after selection was per se illegal)).

¹³¹ U.S. DEPT OF JUSTICE & FTC, ANTITRUST GUIDELINES FOR THE LICENSING OF INTELLECTUAL PROPERTY, *supra* note 43, at 23-30. The guidelines also describe a “safety zone” to provide certainty and encourage innovation and enhanced competition: “[T]he Agencies will not challenge a restraint in an intellectual property licensing arrangement if (1) the restraint is not facially anticompetitive and (2) the licensor and its licensees collectively account for no more than twenty percent of each relevant market significantly affected by the restraint.” *Id.* at 22.

¹³² *In re Dell Corp.*, 121 F.T.C. 616 (1996); *In re Union Oil Co. of Cal.*, No. 9305 (F.T.C. Mar. 4, 2003), available at <http://www.ftc.gov/os/adjpro/d9305/index.htm>; *In re Rambus, Inc.*, No. 9302 (F.T.C. Feb. 23, 2004), available at <http://www.ftc.gov/os/adjpro/d9302/index.htm>.

potential liability. The cases have been brought against patent owners whose patent was likely the best solution to the technological issue resolved by the respective standard. The FTC approach would, therefore, remove the burden of coming to grips with the duty to disclose from the SSO and the participants in the standard-setting process, which are in the best situation to deal with the problem.

The FTC's choice to define a cause of action centered on the duty to disclose, has shown that duty to be illusory and dangerous as currently administered.¹³³ Firms wishing to participate in a standard-setting process may believe that the others are complying with their interpretation of the duty to disclose or that there is an effective remedy. The participants may, based upon that faith, make business decisions including substantial investments, only to find that their faith was misplaced and that they are sued for infringement for practicing the standard.

By interceding, the FTC impedes the discovery of a standard-setting model that will work; one that can describe the duty to disclose with sufficient exactitude to be enforceable. On the other hand, I assert that this experimentation would result in the discovery that clarity in the expression of enforceable conditions of participation in standard-setting is not practical. The more precise the definition of the duty to disclose, the less likely that patent owners would be willing to accept the risks of participation in standard-setting. Interestingly, the FTC has stated that an SSO need not require disclosure.¹³⁴ This Article proposes a workable alternative to the duty to disclose.

Each of these three cases involve technology that is likely the best solution to the issue that the standard was intended to confront. The remedy the FTC sought in each of these three cases and the one achieved in *Dell*¹³⁵ would deny the patent owner the ability to enforce its patent rights. The three cases taken together consider whether a patentee need actually enforce its patent rights to subject itself to liability under an FTC action; whether the patent owner's activities making test data that indicates its products' advantages available to a public body is protected by freedom of speech; whether a misrepresentation can occur by implication and where omission does not affect the accuracy of the data it did supply; whether a duty to disclose can be implied, not dealing with whether a participant has a right to attempt to design its patent application claims to cover

¹³³ Complaint of the FTC, *In re Union Oil of Cal.*, No. 9305 (F.T.C. Mar. 4, 2003), available at <http://www.ftc.gov/os/adjpro/d9305/index.htm>; Appellant's Petition for Certiorari, *Rambus, Inc. v. Infineon Tech. AG*, 318 F.3d 1081, 65 U.S.P.Q.2d (BNA) 1705 (Fed. Cir. 2003) (No. 03-37).

¹³⁴ See *In re Dell Corp.*, 121 F.T.C. at 626 ("Nor should this enforcement action contain a general suggestion that standard-setting bodies should impose a duty to disclose."). Balto recognized that a duty to disclose is not required in a standard-setting environment; however, he suggests that SSOs use it as a "strong procompetitive signal." Balto, *supra* note 23, at 14. I discuss the inherent ineffectiveness of the duty to disclose in Part V.A., *infra*.

¹³⁵ *Id.*

the evolving standard; and whether a duty to disclose extends beyond the resignation by the patent owner-participant, among other issues.

a. *Dell*. The FTC brought a complaint against Dell Computer Corporation based upon the company's participation in a 1992 standard-setting process under the auspices of the Video Electronics Standards Association (VESA).¹³⁶ VESA develops standards for computer graphics, particularly for use in electronic gaming. The standard being developed was for a "VESA Local Bus" or "VL-Bus"¹³⁷ to meet the needs of video-intensive software. Buses are a common connection point for multiple circuits intersecting within the same system. According to the complaint, Dell had acquired the '481 patent,¹³⁸ which gave Dell "exclusive rights to the mechanical slot configuration used on the motherboard to receive the VL-bus card."¹³⁹

After arriving at a proposed standard, the VESA committee polled its members, and on July 20, 1992, the Dell representative voted for the new standard and represented that "*to the best of his knowledge* 'this proposal does not infringe on any trademarks, copyrights, or patents' that Dell possessed."¹⁴⁰ Later, on August 6, the Dell representative again voted for the proposed standard and renewed his representation that, to the best of his knowledge, the standard would not infringe his company's IP.¹⁴¹

Over the course of the next eight months, 1.4 million computers were sold using the new standard. Dell then told the other VESA participants that use of the recently adopted standard infringed Dell's '481 patent, and demanded that the other members meet with Dell to determine how Dell's exclusive rights would be recognized.¹⁴² Dell did not sue for infringement.

The FTC complaint alleged that "Dell has unreasonably restrained competition" by first hindering acceptance of the VL-bus design standard "because some computer manufacturers delayed their use of the design standard until the patent issue was clarified,"¹⁴³ and that "[s]ystems utilizing the VL-bus

¹³⁶ *In re Dell Corp.*, 121 F.T.C. at 617, ¶ 4. Interestingly, the FTC approved a settlement with another SSO where that SSO refused to adopt a standard to include an effective device because that device was patented. See *In re Am. Soc'y of Sanitary Eng'g*, 106 F.T.C. 324 (1985).

¹³⁷ *In re Dell Corp.*, 121 F.T.C. at 617, ¶ 5 ("[T]he VL-bus [is] a mechanism to transfer instructions between the computer's central processing unit and its peripherals.").

¹³⁸ U.S. Patent No. 5,036,481 (issued July 30, 1991).

¹³⁹ *In re Dell Corp.*, 121 F.T.C. at 618, ¶ 6.

¹⁴⁰ *Id.* at 618, ¶ 7 (emphasis added).

¹⁴¹ The complaint does not allege that the representative had personal knowledge or that Dell corporately was aware of the '481 patent to the VL-Bus standard. *Id.*

¹⁴² *Id.* at 618, ¶ 6. Dell did not actually bring suit. I question the FTC's acting before Dell's intentions were clear.

¹⁴³ *Id.* at 618, ¶ 9. The complaint does not describe Dell's actual anticompetitive conduct. Apparently, Dell's mere assertion of its interests was sufficient to stifle the market. First, there is the

design standard were avoided due to concerns that patent issues would affect the VL-bus' success as an industry design standard."¹⁴⁴

The complaint also asserted that "[t]he uncertainty concerning the acceptance of the VL-bus design standard raised the costs of implementing the VL-bus design as well as the costs of developing competing bus designs"¹⁴⁵ and that "[w]illingness to participate in industry standard-setting efforts have been chilled."¹⁴⁶

obvious question whether Dell's representative certified with knowledge of the Dell patent and whether the relationship of the VL-bus standard and the '481 patent occurred subsequent to the final formal adoption of the standard. Secondly, the complaint fails to identify any effort by Dell to sue for infringement or even to negotiate licenses. The complaint recites Dell's only demand that the parties meet to "determine . . . the manner in which Dell's exclusive rights will be recognized." *Id.*

¹⁴⁴ *Id.* FTC Complaint Counsel wrote this count in a passive sentence structure. In so doing, the Complaint Counsel avoided the necessity of establishing proof of the alleged market reaction to Dell's allegedly inaccurate certification and its subsequent assertion of its intention not to allow use without recognition of its rights. The second count did not provide the timing between Dell's announcement of its rights and the market response. The theory of *Dell*, *Unocal*, and *Rambus* fails to consider the fact that standard-setting organizations can avoid such dilemmas by adopting a replacement standard, perhaps leaving the patent owner, like Sony with its BetaMax, to ponder its rights while the market adjusts.

¹⁴⁵ *Id.* Again, those effects are not asserted in the predicate to the complaint.

¹⁴⁶ *Id.* This alleged potential chilling effect would, under the complaint, result from Dell's failure to disclose in the presence of a duty to disclose. For an entirely different reason, the failure of an SSO to clearly define the duty to disclose, Judge Rader expressed a similar concern in *Rambus*, as quoted in note 61, *supra*. *Rambus, Inc.*, 318 F.3d 1081. In the Dell complaint, however, there was no predicate to associate Dell's rather benign conduct and the chilling effect on standard-setting in general. *In re Dell Corp.*, 127 F.T.C. 616.

Notwithstanding a spirited dissent,¹⁴⁷ the FTC approved a consent order its staff had negotiated with Dell. Under the order, Dell gave up its rights to assert any right in the '481 patent for use of the VL-bus in the manufacture of computer equipment over the entire remaining term of the patent. This agreement to cease and desist from asserting its rights includes even "the threat, prosecution, or defense of any suits or other actions, whether legal, equitable, or administrative, as well as any arbitrations, mediations, or any other form of private dispute resolution."¹⁴⁸

Under the consent order, Dell further agreed for a period of ten years to "cease and desist from enforcing or threatening to enforce any patent rights" if the other party's use or sale is in implementation of an industry design standard and in response to a written inquiry from a standard-setting organization, "[Dell]

¹⁴⁷ *In re Dell Corp.*, 121 F.T.C. 616 (Azcuena, M., dissenting). Commissioner Mary L. Azcuena noted the ironic effect of the Dell consent order, asserting that the threat of losing one's ability to enforce its IP rights, in fact, "may dissuade some firms from participating in the standards-setting process in the first place." *Id.* at 633.

Her dissent states "[t]he sole act for which Dell is charged with a violation of law is that Dell's voting representative, in voting to adopt the standard, signed a certification that to the best of his knowledge, the proposed standard did not infringe on any relevant intellectual property." *Id.* at 638. Her position is that the complaint makes out a novel theory for prosecution under section 5 of the FTC Act, not dependent upon a showing that "Dell intentionally and knowingly misled VESA and without any allegation that Dell obtained market power beyond that lawfully conferred by the patent" as a result of the misstatement at issue. *Id.* at 629.

Commissioner Azcuena observed that "the Commission effectively imposes a duty of disclosure on Dell beyond what VESA required." *Id.* at 630. She noted that the statement signed by the Dell representative could have been drafted in a way to have been very specific about his certifying as to Dell's entire IP portfolio, but it did not. *Id.* at 641. The order effectively assumes that additional and very significant fact.

Even under the less rigorous standard used for common law fraud, clear and convincing evidence is required to show "that the patent applicant failed to disclose material information known to the applicant, or that the applicant submitted false information with the intent to act inequitably." *Id.* at 631. The express wording of the VESA ballot was limited to knowledge of the individual representative.

Commissioner Azcuena further noted that there are no allegations that Dell gained market power. *Id.* at 632. She found the remedy "unnecessarily harsh." *Id.* at 633. She also found the allegations of the complaint "highly ephemeral" and noted the private remedy of patent estoppel "should suffice to remedy expectations based on Dell's conduct by barring inappropriate enforcement of a patent claim." *Id.* at 634. However, she noted in order to make out the case, the party asserting the defense must prove "(1) a misleading communication by way of words, conduct or silence by a knowledgeable patentee; (2) reliance by another party on the communication; and (3) material prejudice to the other party if the patent holder is allowed to proceed." *Id.* at 633. By its action, the FTC removed the burden of proving material prejudice.

¹⁴⁸ *Id.* at 620.

intentionally failed to disclose such patents rights while [the standard] was under consideration.”¹⁴⁹

The FTC sought its remedy even though Dell did nothing more than inform the VESA participants of Dell's intention to pursue its intellectual property rights in the '481 patent's implication in the adopted standard.¹⁵⁰ Dell sued no participant and did not express the terms under which it would have licensed the patent. The complaint and consent order did not reflect on the fact that VESA's duty to disclose appeared to be limited to the personal knowledge of the participants' representatives.

Consider the decisions of the FTC in *Unocal* and *Rambus* in light of Dell.

b. Unocal. Though not private standard-setting, the FTC's case against Union Oil Company of California is another instance of allegations of anticompetitive conduct based on breach of an alleged duty to disclose.¹⁵¹ The case is instructive as to the extent to which the FTC may be willing to go to imply a duty to disclose. The allegations were based upon Unocal's having participated in a standard-setting process in the late 1980s undertaken by the California Air Resources Board, a department of the California Environmental Protection Agency, for a summer formula for gasoline intended to be “low emissions, reformulated gasoline (RFG).”¹⁵² At the center of this case were the questions of whether there existed a duty to disclose and, if so, whether that duty had been violated. The case also involves Unocal's alleged failure to disclose its intellectual property interests in two oil industry associations, Air/oil Group and Western States Petroleum Association, and Unocal's allegedly modifying claims under existing patent applications to cover the standard finally adopted.

The FTC's complaint against Unocal alleged the company “engaged in unfair methods of competition through knowing and willful representations” to the CARB and competitors in two industry associations.¹⁵³ The complaint alleged that those representations “(1) induced CARB to adopt reformulated gasoline standards that substantially overlapped Unocal's patent claims and (2) induced other refiners to reconfigure their refineries in ways that subsequently exposed

¹⁴⁹ *Id.*

¹⁵⁰ *Id.* at 618, ¶ 8.

¹⁵¹ *In re Union Oil Co. of Cal.*, No. 9305 (F.T.C. Mar. 4, 2003), available at <http://www.ftc.gov/os/adjpro/d9305/index.htm>. Unocal, at the times relevant to the FTC complaint, was a vertically integrated oil company that produced, refined, and marketed petroleum products.

¹⁵² Complaint of the FTC, *In re Union Oil Co. of Cal.*, No. 9305 (F.T.C. Mar. 4, 2003), available at <http://www.ftc.gov/os/adjpro/d9305/index.htm>. CARB is a governmental body and used a formal rulemaking process to adopt the formula standard. The standard, once adopted, had the force and effect of law, magnifying the effect of any anticompetitive conduct.

¹⁵³ Opinion of the Commission at 1, *In re Union Oil Co. of Cal.*, No. 9305 (F.T.C. July 7, 2004), available at <http://www.ftc.gov/os/adjpro/d9305/index.htm>.

them to Unocal's patent claims."¹⁵⁴ The complaint's alleged anticompetitive conduct fell into three categories: (1) Unocal's breach of a duty imposed by the quasi-judicial nature of CARB's proceedings to disclose to CARB and other participants patents that related to the standard CARB finally adopted; (2) Unocal's conduct that engendered a reliance on the "non-proprietary" nature of the standard, leading to CARB's adopting the standard and substantial reliance by competitors in which they invested billions of dollars in compliance; and (3) Unocal's modifying claims in pending applications to cover the standard CARB adopted.¹⁵⁵

The complaint alleged that Unocal "willfully engaged in anticompetitive and exclusionary acts" beginning in the 1990s and continuing through the complaint by which "it wrongfully obtained monopoly power in the technology market" for California's summer gasoline formula; Unocal was in dangerous probability of monopolization as a result of "a specific intent to monopolize" that technology market and the market for downstream goods; and Unocal actually "unreasonably restrained trade in the technology market and downstream goods."¹⁵⁶

The FTC's administrative law judge (ALJ) granted Unocal's motion to dismiss all allegations involved in the complaint regarding Unocal's conduct toward CARB.¹⁵⁷ He found that CARB's rulemaking was quasi-legislative, not quasi-adjudicative.¹⁵⁸ Therefore, Unocal's activities were immune under the *Noerr-Pennington* Doctrine.¹⁵⁹ The administrative judge further found that CARB's process was not dependent on Unocal.¹⁶⁰ In granting Unocal's motion, the administrative judge apparently took as fact that the FTC allegations relating to Unocal's failure to inform CARB about its intention to enforce its IP rights implicated amounted to a misrepresentation.¹⁶¹ For instance, in his finding 31, the ALJ took as fact the FTC allegation that Unocal did not disclose "material information."¹⁶²

¹⁵⁴ *Id.*

¹⁵⁵ *See id.*

¹⁵⁶ *Id.* at 15-16. FTC Administrative Law Judge Chappell included allegations of willfulness on Unocal's part, perhaps in recognition of Commissioner Azcuenaga's dissent in *In re Dell Corp.*

¹⁵⁷ Initial Decision of the Administrative Law Judge at 67, *In re Union Oil Co. of Cal.*, No. 9305 (F.T.C. Nov. 25, 2003), available at <http://www.ftc.gov/os/adjpro/d9305/index.htm>.

¹⁵⁸ *Id.*

¹⁵⁹ *Id.*

¹⁶⁰ *Id.* at 43, conclusions of law at 68.

¹⁶¹ *Id.* at 18-19.

¹⁶² *Id.* at 18 ("Although Unocal knew by July 1992 that most of the pending patent claims based on its emissions research had been allowed by the United States Patent and Trademark Office, Unocal did not disclose this material information to CARB and other participants in the CARB RFG proceedings.").

The administrative law judge held that, as to the FTC's allegations about Unocal's participation involving two private associations, the Air/Oil Group and the Western States Petroleum Association, resolution of the issues demanded resort to patent law and were beyond the jurisdiction of the FTC.¹⁶³ FTC Complaint Counsel appealed.

The FTC, in a decision written by then Chairman Muris, reversed the decision of the administrative law judge and remanded the case for further proceedings.¹⁶⁴ The Commission based its decision on Unocal's "alleged misrepresentations to CARB"¹⁶⁵ and the Commission's conclusion that the *Noerr-Pennington* immunity does not protect the conduct alleged by the complaint.¹⁶⁶

The Complaint made no allegation that the test data Unocal supplied was incorrect or misleading, and Unocal made no representation that it would not enforce its IP rights. The allegations dealing with misrepresentation are predicated upon Unocal's not disclosing its intention to assert its patent rights that was implicated in CARB's standard.

The Commission makes no express finding about the misrepresentation.¹⁶⁷ Neither did the Initial Decision. The Commission's decision must, therefore, base its conclusion that the allegations made out a claim of misrepresentation on Unocal's intentions, Unocal's denying a proprietary interest in test data it provided for its TSO formula, Unocal's knowing failure to disclose its prosecution of the '393 patent,¹⁶⁸ and CARB's alleged dependence upon Unocal's information and its "expectation" that Unocal would not enforce any IP rights.¹⁶⁹ The decision bases the implication on Unocal's representation that its test data would "show that 'cost-effective' regulations could be achieved through adoption of a 'predictive model' and to convince CARB of the importance of T50."¹⁷⁰ The Commission found the Complaint sufficient, based upon its allegation that "Unocal failed to disclose that it had pending patent rights, that its patent claims

¹⁶³ *Id.* at 67.

¹⁶⁴ Opinion of the Commission at 54, *In re Union Oil Co. of Cal.*, No. 9305 (F.T.C. July 7, 2004), available at <http://www.ftc.gov/os/adjpro/d9305/index.htm>.

¹⁶⁵ *Id.* at 3.

¹⁶⁶ *Id.* at 54.

¹⁶⁷ Opinion of the Commission, *In re Union Oil Co. of Cal.*, No. 9305 (F.T.C. July 7, 2004), available at <http://www.ftc.gov/os/adjpro/d9305/index.htm>.

¹⁶⁸ U.S. Patent No. 5,288,393 (issued Feb. 22, 1994).

¹⁶⁹ Opinion of the Commission at 5, *In re Union Oil Co. of Cal.*, No. 9305 (F.T.C. July 7, 2004), available at <http://www.ftc.gov/os/adjpro/d9305/index.htm> ("[T]he Complaint alleges that 'Unocal's misrepresentations and materially false and misleading statements caused CARB to adopt [a standard] that substantially overlapped with Unocal's concealed patent claims.'").

¹⁷⁰ *Id.* at 6-7.

overlapped with the proposed RFG regulations and that Unocal intended to charge royalties."¹⁷¹

The ALJ's decision dismissing the complaint had found that CARB was a governmental body, that its rulemaking was quasi-legislative and, therefore, that the *Noerr-Pennington* Doctrine protected Unocal's actions lobbying for adoption of a standard that was beneficial to its own market position. This immunity has been defined in a series of decisions and the lobbying has been immune from antitrust remedy under the *Noerr-Pennington* Doctrine, even when substantial market power has been conferred by the governmental action.¹⁷²

The courts have extended the *Noerr-Pennington* immunity to misrepresentations in legislative and quasi-legislative proceedings by legislatures and administrative bodies, respectively, where lobbying is an inherent part of the proceeding.¹⁷³ They have not extended the immunity to misrepresentations in quasi-judicial proceedings in which there is an expectation and dependence on veracity.¹⁷⁴

The Commission's decision holds that "misrepresentation may sometimes vitiate the *Noerr-Pennington* Doctrine."¹⁷⁵ The decision asserts that Supreme Court law considering the "sham" exception to the *Noerr-Pennington* Doctrine is unsettled and that appellate courts have recognized that the exception may apply in judicial and administrative proceedings.¹⁷⁶ The Commission concludes that "the case law suggests an inquiry focused on whether a proceeding is political or non-political, rather than on whether it is quasi-legislative or quasi-adjudicatory."¹⁷⁷

The Commission's decision, having analyzed decisions governing application of the *Noerr-Pennington* Doctrine, considers the underlying public policy.¹⁷⁸ The

¹⁷¹ *Id.* at 5.

¹⁷² See *Allied Tube & Conduit Corp.*, 486 U.S. at 500; *United Mine Workers of Am.*, 381 U.S. 657; *Noerr Motor Freight*, 365 U.S. 127.

¹⁷³ *Allied Tube & Conduit Corp.*, 486 U.S. 492; *Cal. Motor Trans. Co. v. Trucking Unlimited*, 404 U.S. 508 (1972).

¹⁷⁴ *Profl Real Estate Investors, Inc. v. Columbia Pictures Indus., Inc.*, 508 U.S. 49, 26 U.S.P.Q.2d (BNA) 1641 (1993).

¹⁷⁵ Opinion of the Commission at 10, *In re Union Oil Co. of Cal.*, No. 9305 (F.T.C. July 7, 2004), available at <http://www.ftc.gov/os/adipro/d9305/index.htm>.

¹⁷⁶ CARB's deliberations appear quasi-legislative, not quasi-adjudicatory in nature. The Commission finds the deliberations non-political, finding an expectation and dependence the integrity of Unocal's test data and a narrow discretion. I find no allegation that the test data was inaccurate. Rather, the Commission's analysis assumes that Unocal's communications imply that the company either (1) had no intellectual property interests or (2) had no intention of enforcing any intellectual property rights and that alleged implication amounted to a misrepresentation. *Id.* at 37-43.

¹⁷⁷ *Id.* at 31-32.

¹⁷⁸ *Id.* at 19 (quoting *Whelan v. Abell*, 48 F.3d 1247, 1254-55 (D.C. Cir. 1995) ("We see no reason to believe that the right to petition includes a right to file deliberately false complaints

Commission's decision denied a "legal framework" for the application of the *Noerr-Pennington* Doctrine that is predicated on a "political/non-political" demarcation. The Commission's decision then provides criteria relevant to the determination whether the *Noerr-Pennington* immunity protected "the nature of government expectations; the degree of governmental discretion; the extent of necessary reliance on petitioners' factual assertions; and the ability to determine causation, linking the government's actions to petitioner's communications."¹⁷⁹ After weighing these criteria against argument Complaint Counsel's Commission, the decision held that "there is no basis either in policy or in the nature and context of Unocal's communications to CARB for dismissing the Complaint as a matter of law."¹⁸⁰

The decision imputed a misrepresentation, though there is no allegation that the data provided by Unocal was inaccurate or misleading. The complaint contained no allegation that Unocal expressly asserted an intention not to enforce any intellectual property rights.

The Commission's decision held that the complaint, if proved true, makes out a cause of action.¹⁸¹ In so holding, the decision found it sufficient that the complaint alleged CARB's reliance on the test data, the agency's limited discretion with an allegation that a Unocal communication "created a 'materially false and misleading impression was the quid pro quo for CARB's 'agreement to develop a predictive model,' " and that Unocal had "created the misleading *impression* that it had agreed to give up any 'competitive advantage' it may have had" relating to its purported invention and arising from its emissions research results and that Unocal's statement suppressed the 'material fact that assertion of its proprietary right should materially increase the cost and reduce the flexibility of the proposed regulations."¹⁸²

CARB and the participants in the other two organizations involved in the CARB rulemaking had it within their power before adoption of the formula standard to expressly inquire from Unocal what Unocal's intentions were with respect to enforcement of its intellectual property rights in its T50 formula. They chose not to, and the FTC chose to allege a Unocal misrepresentation based upon an implication of Unocal's communications with CARB and two associations.¹⁸³

However, broad the First Amendment right to petition may be, it cannot be stretched to cover petitions based on known falsehoods.")).

¹⁷⁹ *Id.* at 32.

¹⁸⁰ *Id.* at 45

¹⁸¹ *Id.*

¹⁸² *Id.* at 5 (emphasis added).

¹⁸³ *See id.*

c. *Rambus*. The Federal Trade Commission filed its complaint against Rambus on June 18, 2002,¹⁸⁴ at the time the Federal Circuit was considering the appeal from the jury verdict and judgment of the U.S. District Court for the Eastern District of Virginia.

The complaint made out two counts under section 5 of the FTC Act by willfully engaging in anticompetitive and exclusionary conduct that leads to achieving (1) "monopoly power in the synchronous DRAM technology market and narrower markets encompassed therein" and (2) with specific intent to monopolize those markets, achieving a "dangerous probability of monopolization" in each of those markets.¹⁸⁵

The complaint listed the anticompetitive effects of Rambus's conduct on synchronous technology as: (1) increased royalties in its manufacture, sale, or use; (2) increases in its price or reductions in its use; (3) decreased incentives to produce memory-using technology; (4) decreased incentives for participation in standard-setting organizations; and (5) decreased reliance on the industry standard-setting collaborations.¹⁸⁶

The complaint alleged that Rambus made only "limited and misleading disclosures" during the pendency of its participation in the standard-setting process.¹⁸⁷ The facts indicate that Rambus disclosed the written description of a patent which shared the same written description with the patent it subsequently sought to enforce and that another participant disclosed a WIPO application.¹⁸⁸ The complaint stated that any effort by JEDEC to identify a replacement, non-infringing standard would have been impractical.¹⁸⁹

These counts were based upon a breach of a duty to disclose and the amending claims of pending patent applications to cover a proposed standard for SDRAM. The complaint alleged that JEDEC, the private standard-setting organization involved, maintained a steadfast policy against adopting standards that would give "a competitive advantage to any manufacturer, [or exclude] competitors from the market."¹⁹⁰ The complaint asserts that JEDEC maintained

¹⁸⁴ Administrative Complaint, *In re Rambus, Inc.*, No. 9302 (F.T.C. June 18, 2002), available at <http://www.ftc.gov/os/adjpro/d9302/index.htm>.

¹⁸⁵ *Id.* at 32.

¹⁸⁶ *Id.* at 31. In addition, Rambus was accused of knowing destruction of documents.

¹⁸⁷ *Id.* at 19-22.

¹⁸⁸ *Rambus*, 318 F.3d at 1085.

¹⁸⁹ Administrative Complaint at 27, *In re Rambus, Inc.*, No. 9302 (F.T.C. June 18, 2002), available at <http://www.ftc.gov/os/adjpro/d9302/index.htm>. This allegation and the similar one in which *Unocal* raise a question whether the FTC would assert that modifying claims to cover an evolving standard is a sufficient basis, without allegations of failure to disclose, upon which to base an action under § 5 of the FTC Act. Administrative Complaint at 14, *In re Union Oil Co.*, No. 9305 (F.T.C. Mar. 4, 2003), available at <http://www.ftc.gov/os/adjpro/d9305/index.htm>.

¹⁹⁰ *Id.* at 5 (quoting JOINT ELECTRON DEVICE ENG'G COUNCIL, JEDEC PATENT POLICY, *supra*

“a commitment to avoid, where possible, the incorporation of patented technologies into its published standards, or at a minimum to ensure that such technologies, if incorporated, will be available on royalty-free or otherwise reasonable and non-discriminatory terms.”¹⁹¹ The FTC’s three counts have been characterized as laying out “legal theories based in conventional antitrust principles.”¹⁹²

On February 23, 2004, Chief Administrative Law Judge McGuire issued the initial decision.¹⁹³ His decision, echoing Judge Rader’s decision, was a complete rejection of the FTC complaint. He found that Rambus “did not have any undisclosed patents or patent applications during the time that it was a JEDEC member.”¹⁹⁴ He further held that JEDEC did not rely on Rambus’s misrepresentation or omission in arriving at the standard and any reliance would have been unreasonable.¹⁹⁵ He found there to be no causal link between the JEDEC standard-setting process and Rambus acquiring market power, and that JEDEC was free to adopt standards that do not implicate Rambus’s patents.¹⁹⁶

These three cases indicate that the FTC is willing to act as the surrogate for an SSO and the co-participants in a standard-setting process, choosing to define a cause of action centered on the duty to disclose.¹⁹⁷ As currently administered, this strategy is questionable. The FTC’s approach allows SSO’s current vague communication of a duty to disclose to provide the basis for potential liability. Also, firms wishing to participate in a standard-setting process may believe that the others are complying with their interpretation of the duty to disclose or that there is an effective remedy if not. The participants may, based upon that faith, make business decisions, including substantial investments only to find that their

note 48).

¹⁹¹ *Id.*

¹⁹² Alden F. Abbott & Theodore A. Gebhard, *Standard-Setting Disclosure Policies: Evaluating Antitrust Concerns in Light of Rambus*, 16 ANTITRUST 29, 34 (2002) (“The Commission’s attempted monopolization claim requires proof that Rambus (1) possessed a specific intent to monopolize, and (2) engaged in exclusionary conduct (3) giving rise to a dangerous probability of monopolization (but not necessarily any actual adverse effect on competition) in one or more well-defined markets.”) Abbott and Gebhard further argue that the decision, if against Rambus, could not have been used “by subsequent private plaintiffs as either *prima facie* evidence or collateral estoppel in their treble damage actions.” *Id.*

¹⁹³ Initial Decision of the Administrative Law Judge, *In re Rambus, Inc.*, No. 9302 (F.T.C. Feb. 23, 2004), available at <http://www.ftc.gov/os/adipro/d9302/index.htm>.

¹⁹⁴ *Id.* at 7.

¹⁹⁵ *Id.*

¹⁹⁶ *Id.* Complaint counsel has appealed the initial decision.

¹⁹⁷ *Id.*

faith was misplaced.¹⁹⁸ By choosing to enter the fray, the FTC has inhibited the discovery of a standard-setting model that will work.

The breach of a duty to disclose is not an example of exclusion, nor is it an example of designing out, and it is bounded by the ability to clearly define and communicate the scope of the duty. The FTC has stated that a SSO need not require disclosure.¹⁹⁹

IV. CURRENT PROPOSED SOLUTIONS

Current legal scholarship is divided on the issue of standard-setting. The proposals fall into three major categories: (1) how to make the disclosure requirement enforceable, (2) whether and how to affect the pricing model, and (3) whether and in what way antitrust scrutiny should be adjusted to free standard-setting from the risks of scrutiny as anticompetitive or how to maintain or increase that scrutiny.

A. DISCLOSURE²⁰⁰

SSO participation today depends on the expression of and compliance with a duty on the part of participants to disclose relevant intellectual property interests. *Dell*, *Unocal*, and *Rambus* indicate that participant-patent owners take advantage of the duty to disclose by not disclosing or by resigning before the duty to disclose arises.²⁰¹ Participant-potential licensees have relied on compliance, only to discover that after having made substantial investments to pursue the standard, they are sued for patent infringement for practicing the standard. As currently practiced, the duty to disclose is a paper tiger and provides a false sense of security.

¹⁹⁸ This premise is established by both the Complaint of the FTC, *In re Union Oil Co. of Cal.*, No. 9305 (F.T.C. Mar. 4, 2003), available at <http://www.ftc.gov/os/adjpro/d9305/index.htm>, and Appellant's Petition for Certiorari, *Infineon Tech AG*, 318 F.3d 1081 (No. 03-37).

¹⁹⁹ See *In re Dell Corp.*, 121 F.T.C. at 626 ("Nor should this enforcement action contain a general suggestion that standard-setting bodies should impose a duty to disclose."). Balto, *supra* note 23, at 14 recognized that a duty to disclose is not required in a standard-setting environment; however, he suggests that SSOs use it as a "strong procompetitive signal." I discuss the inherent ineffectiveness of the duty to disclose in Part V.A, *infra*.

²⁰⁰ In Part V, *infra*, I discuss the many challenges that confront a drafter of an enforceable duty to disclose.

²⁰¹ *In re Rambus, Inc.*, No. 9302 (F.T.C. Feb. 23, 2004), available at <http://www.ftc.gov/os/adjpro/d9302/index.htm> (last visited Nov. 19, 2004); *In re Union Oil Co. of Cal.*, No. 9305 (F.T.C. Mar. 4, 2003), available at <http://www.ftc.gov/os/adjpro/d9305/index.htm>; *In re Dell Corp.*, 121 F.T.C. 616.

As indicated by the following discussion, legal scholars have made proposals attempting to correct the current structural sloppiness in the SSO's expression of the duty to disclose. These commentators have contemplated using existing or proposed causes of action to enforce the duty to disclose in a standard-setting exercise. Others have proposed a more clearly defined duty to disclose.

Professor Janice Mueller focuses on instances in which the government is a driver in the standard-setting process. She argued that "patent owners should have a mandatory obligation to disclose the existence of any patents or pending patent applications that are material to the standard during their participation"²⁰² to allow preservation "for the standard setting body . . . to decide whether it will adopt a standard that requires the use of the patented technology or develop a different standard that avoids it altogether."²⁰³ She proposed a compulsory licensing regime for private standard-setting.²⁰⁴ If a patent is implicated in a standard set by a governmental body, the governmental body should exercise its power of eminent domain as a remedy to the refusal to disclose or license all users on commercially reasonable terms.²⁰⁵ If the failure to disclose was intentional, she proposed the application of the patent misuse doctrine to deny both injunctive relief and damages.²⁰⁶

Professor Mark Lemley contemplates means to make a duty to disclose enforceable in his valuable work on standard-setting.²⁰⁷ He recognizes that SSO policies are not themselves enforceable and that enforceability is a matter of law.²⁰⁸ A participant's mere membership is not sufficient to bind the participant to the SSO's policies.²⁰⁹ Professor Lemley considers the continuing duty to disclose to terminate when the patent owner resigns.²¹⁰ He discusses whether the bylaws of the SSO should be enforceable in contract law theory and whether the parties should enter into a contract.²¹¹ He considers whether the co-participants

²⁰² See Mueller, *supra* note 64, at 630-31. Professor Mueller opined that the enactment of the American Inventors Protection Act of 1999, Pub. L. No. 106-113, § 1000(a)(q), 113 Stat. 1536, 1501A-552 (1999), will increase the likelihood that standard-setting participants will disclose pending patent applications, since the PTO will publish applications for which the applicant intends to file internationally. *Id.* at 647. This process will predictably increase the availability of patent applications, but of whether the uncertainty applications fall within a duty to disclose and the risks attendant to disclosure in standard-setting will remain.

²⁰³ Mueller, *supra* note 64, at 666.

²⁰⁴ *Id.* at 664-69.

²⁰⁵ *Id.* at 660-64.

²⁰⁶ *Id.* at 669-84.

²⁰⁷ Lemley, *supra* note 30.

²⁰⁸ *Id.* at 1909-12.

²⁰⁹ *Id.* at 1911.

²¹⁰ *Id.* at 1912-13.

²¹¹ *Id.* at 1909.

should be considered third-party beneficiaries to a contract, able to enforce their rights should they be sued for infringement of a standard in which the plaintiff was a participant.²¹² He discounts the value of injunctive relief as a vehicle to enforce disclosure.²¹³

Professor Lemley recognizes that the duty to disclose suffers from many weaknesses. He proposes that SSOs should (1) define the IP rights up front,²¹⁴ (2) make the obligations of participation clear and enforceable,²¹⁵ (3) require disclosure only when balanced by a licensing duty,²¹⁶ and (4) define certain conditions for the license.²¹⁷

Professors Teece and Sherry have written an article concerning the level of antitrust scrutiny; however, the professors make observations about the duty to disclose.²¹⁸ They write that to be meaningful, the duty to disclose must be accompanied by a duty to search.²¹⁹ They state that “overdisclosure can be as problematic as underdisclosure”²²⁰ and that “non-disclosure does not equal lack of knowledge.”²²¹ They assert that “by disclosing the results of its research to Auto/Oil, Unocal presumably put other firms on notice that Unocal had conducted its own research, and those firms should have reasonably inferred that Unocal would have applied for a patent on its innovation.”²²² Professors Teece and Sherry advocate clarity of the conditions of participation²²³ so the sanctions of noncompliance are known.

²¹² *Id.* at 1915.

²¹³ *Id.* at 1917 (“Injunctive relief compelling disclosure isn’t a terribly effective remedy; a failure to disclose the existence of an IP right is a problem only if people aren’t aware of the IP right, and if they aren’t aware of it they can hardly know to sue.”).

²¹⁴ *Id.* at 1957-59.

²¹⁵ *Id.* at 1960.

²¹⁶ *Id.* at 1960-62.

²¹⁷ *Id.* at 1962-67.

²¹⁸ Teece & Sherry, *supra* note 56, at 1945-51. The Teece and Sherry article will be further discussed, *infra*, in the context of antitrust considerations.

²¹⁹ *Id.* at 1951.

²²⁰ *Id.* at 1948.

²²¹ *Id.* at 1966.

²²² *Id.* at 1966-67. Professors Teece and Sherry argue that Rambus did not disclose its patent application to JEDEC and that the participants should have inferred the potential for the existence of Rambus’s interests from its international application. *Id.* at 1967-68. Rambus made a disclosure in 1993, and another participant made known Rambus’s international application. *Rambus, Inc. v. Infineon Tech. AG*, 318 F.3d 1081, 1099, 65 U.S.P.Q.2d (BNA) 1705, 1712 (Fed. Cir. 2003).

²²³ Teece & Sherry, *supra* note 56, at 1970-71. Regarding disclosure, they advocate only that the “rules be (1) clearly stated, (2) clearly communicated to participants, and (3) clearly enforced in an even-handed manner. It is also important (4) that the consequences of a participant’s failure to comply with the rules be explicitly laid out.” Professors Teece and Sherry only reluctantly classify a conscious failure to disclose as manipulation of the standard-setting process. *Id.* 1941-42.

David Balto, former Assistant Director of the FTC's Bureau of Competition, recognizes that a strong disclosure system "involves important trade offs" by firms in determining whether to participate in a standard-setting. But he states that the existence of a disclosure system would "send a strong procompetitive signal."²²⁴

Most commentators on standard-setting are silent on a means to improve the enforceability or reliability of the subject of disclosure, implicitly accepting it as-is. Certain commentators that confront the duty to disclose advocate defining the duty more clearly and in a manner that is enforceable. Professor Mueller proposes that disclosure in standard-setting should be mandatory, and suggests statutory or judicial remedies for the failure to disclose.²²⁵

However, the proposals generally do not confront the inherent complexity of disclosure by, for instance, defining the timing or scope of the duty to disclose, or even suggesting what level of disclosure would satisfy the duty. The ideal model must confront the vagaries of claim construction and both literal infringement and doctrine of equivalents. In Part V, I present the many advantages that will derive from jettisoning the duty to disclose from the model for participation in a private standard-setting process.

B. LICENSING AND ROYALTIES

Several commentators have directed their proposals to the licensing requirement that is common among SSO participation models today.²²⁶ Some of these proposals hope to mitigate the affects of *ex post* pricing by a change in procedure or the law or both. Others reflect confidence in the current model, advocating that implicated patentees deserve to receive a fair return on their contribution to the state of the art.

No commentator advocates royalty-free licensing as a condition of participation in standard-setting. However, Professor Mueller advocates the use of the patent misuse doctrine as a remedy when a participant-patent owner intentionally or willfully fails to disclose.²²⁷ This proposed remedy amounts to royalty free licensing. Professor Lemley finds eight standard-setting organizations require royalty-free licensing as a condition of participation in a standard-setting process.²²⁸ This model, though clear, simple, and attractive from an antitrust perspective, is anathema to the IP community. Royalty free licensing provides no

²²⁴ Balto, *supra* note 23.

²²⁵ Mueller, *supra* note 64, at 630-31.

²²⁶ Balto, *supra* note 23.

²²⁷ See generally Mueller, *supra* note 64, at 671.

²²⁸ Lemley, *supra* note 30, at 1973.

incentive for creation and may well act as a disincentive to participation in a standard-setting organization. The remedies sought by the FTC or others in the case of a breach of a duty to disclose have much the same effect of this option.

Citing *Dell* and *Rambus*, Professors Teece and Sherry criticize “antitrust authorities” for seeking the equivalent of royalty-free licensing as a remedy for a standard-setting participant’s failure to disclose patents or applications that may be implicated in an adopted standard.²²⁹ The professors identify the shortcomings of a duty to license under reasonable terms and conditions, including their *ex post* valuation of a patent implicated in the standard.²³⁰ They do not propose a solution to these specific shortcomings, but rely on SSO self-governance and unfettered by close antitrust scrutiny to identify the appropriate licensing requirement.²³¹

On the other hand, James DeVellis advocates licensing on reasonable terms and conditions²³² after contrasting the incentives associated with the patentee receiving a return on its investment with an obligation to license on a royalty-free basis, which is an alternative licensing obligation imposed by some SSOs.²³³ He reasons that royalty-free licensing is a disincentive to creation.²³⁴

DeVellis finds the network effect that results from standard-setting to be one of its most positive results. He argues that a royalty-free licensing requirement will “stifle technology, reduce network benefits, and force inferior standards to compete against advanced technology that has a higher likelihood of being more available under a RAND policy.”²³⁵

He concludes that “[m]ore than any other system, a RAND policy will result in superior and widely implemented standards that will maximize interoperability and create the atmosphere for continued scientific advancement, thus striking a balance between the opposing domains of patent law and industry standardization.”²³⁶

DeVellis’ model is largely the status quo. He is an advocate of standard-setting and a defender of the common SSO requirement for RAND licensing. His proposal does not offer a means to rectify the fact that RAND licensing

²²⁹ Teece & Sherry, *supra* note 56, at 1959.

²³⁰ *Id.* at 1953-64.

²³¹ *Id.* at 1913.

²³² DeVellis, *supra* note 59. DeVellis, at 322-23, provides a sample of a reasonable terms and conditions license and a sample of the requirements of a royalty free license.

²³³ *Id.* at 319-36.

²³⁴ *Id.* at 344.

²³⁵ *Id.* at 351. The network effect is the result of the multiplier effect on technological developments that occur after the adoption of a standard. The network effect is seen as beneficial and a procompetitive effect of standard-setting. Balto, *supra* note 23, at 2.

²³⁶ DeVellis, *supra* note 59, at 351.

institutionalizes an *ex post* royalty, and accepts the inflation in value that accompanies the adoption of the patentee's technology as a standard. DeVellis's advocacy of the RAND license compares only royalty-free licensing and RAND licensing.²³⁷ There is at least one other alternative, proposed by this Article.

Gordon Klancnik proposes to control the inflated *ex post* valuation in a class of cases involving a standard adopted by governmental action,²³⁸ exemplified by the V-chip and the clean-burning, summer gasoline case that was the subject of *Unocal*.²³⁹ He argues for enactment of a statute modeled after 28 U.S.C. § 1498,²⁴⁰ expanded to encompass standards established by state governments.²⁴¹ His goal is to reform the current system, relying on the skills of the Court of Federal Claims and the Federal Circuit in determining "reasonable and entire compensation."²⁴² This proposal is intended to moderate the inflated value of patents once implicated in a governmentally established standard.²⁴³

This proposal may shorten the process of negotiating licenses and may create a downward pressure on the royalty charged by the patent owner. As with many of the proposals, the Klancnik proposal appears to contemplate that only one firm holds the patent or patents and that those patents cover the entire standard. The proposal does not discuss the means for identifying whether a patent is actually implicated in the adopted standard. His proposal would alter the standard for determining damages, limiting them to section 1498-like damages ("reasonable and entire compensation" versus "reasonable royalty" that could be trebled).²⁴⁴

²³⁷ See the discussion of RAND licensing *infra* Part IV.

²³⁸ Gordon Klancnik, *A Proposal to Resolve Infringement Induced by Governmental Fiat*, 70 GEO. WASH. L. REV. 806 (2002).

²³⁹ *Id.* at 808.

²⁴⁰ *Id.* at 812. That statute provides a remedy for infringement by or on behalf of the Federal government. It assures the patent holder a right to sue for damages, that is, "reasonable and entire compensation" in the Court of Federal Claims. 28 U.S.C. § 1498 (2000).

²⁴¹ Klancnik, *supra* note 238, at 819-20. Klancnik states that for his proposal to successfully encompass the states, those jurisdictions would have to waive their sovereign immunity for this purpose.

²⁴² *Id.* at 828-29. Klancnik's proposal would exclude "attorney's fees" from the § 1498 damages.

²⁴³ Klancnik, *supra* note 238, at 808, states:

Rather than maintain the status quo, where the patentee maintains total control over licensing, this Note's solution would require a new statute. This statute would provide for appropriate compensation in light of all the circumstances and would derive the appropriate measure of damages from existing law with respect to the federal government's direct use of patented technology and eminent domain jurisprudence. Under the proposed statute, the patent holder would lose both its right to exclude others from using its patent and its right to enhanced damages and attorney's fees without giving up the right to receive reasonable and entire compensation.

²⁴⁴ *Id.* at 828; 35 U.S.C. § 284 (2000).

His proposal applies to cases subject to an adopted governmental (federal or state) standard.²⁴⁵ Klancnik asserts that the proposed statute, if enacted, would result in a fair royalty that would minimize standard-setting inflation.²⁴⁶ Klancnik's proposed system amounts to a forced RAND license and would result in *ex post* valuation of the implicated patent.

Professor Mueller's proposal is similar to Klancnik's suggestion. Her proposal would apply "particularly [to] a standard pertaining to public health and safety" that was the product of the Federal government,²⁴⁷ and would threaten a non-disclosing patentee with exercise of eminent domain powers to preclude inflated valuation.²⁴⁸ Her intended result would not necessarily follow since the value would be determined *ex post*.

Professor Patterson proposes a change in current practice intended to moderate the inflationary effects on the value of a patent resulting from being implicated in the standard.²⁴⁹ He would allow the SSO, as the owner of the standard,²⁵⁰ to negotiate a license with the patentee as a means to control the patentee's ability to charge an excessive royalty *ex post*.²⁵¹

The Patterson proposal departs from current practice, but it has many weaknesses. First, it relies on disclosure.²⁵² Reliance on effective disclosure can prove the undoing of any substitute system as will be discussed in Part V.A, *infra*. Other practical considerations argue against the effectiveness of Patterson's proposal. SSOs facilitate standard-setting processes; they do not negotiate licenses. This proposed role would require the reconstitution of SSOs because they have no inherent knowledge of the value of the technology in the marketplace or the investment necessary to arrive at the implicated patent. Finally, under Patterson's proposal, the negotiations must take place after a standard is either adopted or all but adopted, because an SSO could only negotiate with a patentee after identifying the likely standard and the implicated patentee. The result of negotiating at this point would likely be *ex post* pricing, even using

²⁴⁵ Klancnik, *supra* note 238, at 808.

²⁴⁶ *Id.* at 829.

²⁴⁷ Mueller, *supra* note 64, at 684.

²⁴⁸ *Id.* at 663. Mueller recognizes that "[b]ecause it is based on the federal Constitution, this eminent domain proposal does not address the problem of capture of standards mandated by state governments, such as the CARB clean gasoline formulations in the Unocal case."

²⁴⁹ Mark R. Patterson, *Inventions, Industry Standards, and Intellectual Property*, 17 BERKELEY TECH. L.J. 1043, 1044 (2002); see also Patterson, *Antitrust and the Costs of Standard-Setting: A Commentary on Teece and Sherry*, *supra* note 58.

²⁵⁰ Patterson, *Inventions, Industry Standards, and Intellectual Property*, *supra* note 249, at 1044.

²⁵¹ *Id.* at 1083 ("It is clear, though that current rules allow patentees to threaten discriminatorily large fees from some standards users. By eliminating that market failure, this proposal will likely provide better correspondence between financial returns and innovative contributions.")

²⁵² *Id.* at 1063.

the royalty determining scenario's presented here, unless the SSO is willing to move to another standard.²⁵³

Patrick Curran advocates a system similar to Patterson's, but his proposal focuses on a rule of per se legality in regard to the antitrust risks inherent in Patterson's proposal.²⁵⁴ Curran's proposal is limited to single-source patents implicated in the standard and has, as its goal, to obviate the need for vague "fair," "reasonable," "nondiscriminatory" language in SSO policies, "thereby eliminating high risk litigation over the specific meaning of those terms and preserving incentives to participate."²⁵⁵

Curran's solution is complex, proposing that the SSO could negotiate a license with the single patent owner before the standard is adopted.²⁵⁶ As with Patterson's proposal, Curran would substantially alter the SSO's role to require SSOs to develop licensing capabilities.²⁵⁷ Participants and nonparticipants, including antitrust authorities, may view SSOs and the standard-setting process differently, increasing anticompetitive concerns.²⁵⁸

Curran's proposal (1) assumes disclosure; (2) requires identification of the standard, meaning *ex post* pricing; and (3) does not contemplate more than one patent owner's patent being implicated in the adopted standard.

As to a requirement that a participant license on a royalty-free basis, the commentators recognize the effect of adoption of a standard on those who hold an implicated patent or other intellectual property interests on the value of those rights. As recognized by Teece and Sherry, royalty-free licensing results in

²⁵³ *Id.* at 1079-80. SSOs have shown no willingness to move to alternate standards in any of the significant cases that have thus far arisen. *Unocal* is the most dramatic example. In the face of (1) Unocal's arguments that the standard should be a broader standard, (2) of the potential direct effect of Unocal's royalty demands being passed along to California's drivers, and (3) of the FTC case against Unocal, CARB still has refused to move from its standard. See *In re Union Oil Co. of Cal.*, No. 9305 (F.T.C. Mar. 4, 2004), available at <http://www.ftc.gov/os/adippro/d9305/index.htm>. Once a standard setting process has achieved a consensus, inertia preventing consideration of a replacement standard apparently sets in.

²⁵⁴ Curran, *supra* note 22, at 1001.

²⁵⁵ *Id.* at 992-93.

²⁵⁶ *Id.* at 984.

²⁵⁷ *Id.* ("In this Comment, I argue that the goals of antitrust enforcement would be best served by allowing SSOs to operate without fear of antitrust liability when fixing the price terms of licenses for single-source patents."). Curran is not the only commentator to build single source patents into his proposal. In fact, none of the other commentators dealt with the antitrust and other complexities introduced when the adopted standard implicates patents owned by more than one patentee. The proposal advanced in this Article expressly includes provision for multiple patentees being implicated in a standard. See *infra* Part V.

²⁵⁸ See *infra* Part IV.C (further discussing Curran's proposal, among other, advocating the alteration of antitrust scrutiny).

clarity²⁵⁹ and is simple because no computation is necessary. This option disarms the pricing enigma of *ex ante* versus *ex post* pricing by avoiding it. However, royalty-free is, in substance, a penalty. It allows no return for the creativity and investment in the patents finally implicated by the selected standard.

By requiring the forbearance of royalty, SSOs would risk the participation of the firms that are most likely to contribute to the adoption of the most effective standard. Firms have an obligation to their stockholders and boards of directors to receive a return that bears a resemblance to the investment.²⁶⁰

Royalty-free licensing is clean and safe from an antitrust perspective. However, in any attempt to cut the Gordian knot of standard-setting, antitrust concerns, and intellectual property, royalty-free licensing offers no advantage.

One commentator advocated *ex post* pricing as desirable and as an incentive for technological development where the standard reflects increased efficiency.²⁶¹ This view asserts that standard-setting should not measurably detract from a firm's right to maximize royalties.²⁶² The adoption of a standard implicating a patent reflects the inherent value of the technology, represents the fact that the technology is the most efficient, and has the power of the industry consensus in competition with any competing technology not chosen.²⁶³ But once adopted, the patent owner is the beneficiary of an instant increase in the value of the technology. The inflation of the value is analogous to that of an adjacent plot of land after the route for a new interstate has been identified.

This view would provide the patent owner with a windfall as a result of the standard's implicating a participant's patent. There is little difference between this position and those that advocate a RAND licensing requirement. Commenters advocating the remaining two positions and antitrust authorities are together seeking to control the uncontrolled pursuit of maximizing the windfall of *ex post* pricing.

Another category of licensing proposals asserts that the RAND license is an appropriate method to control any inflation in the value of the technology.²⁶⁴ I include in this school the proposals for the SSOs to act as negotiating agents

²⁵⁹ Teece & Sherry, *supra* note 56, at 1954-55.

²⁶⁰ Lemley, *supra* note 30, at 1907 ("If the SSO in question is one of the few that compels assignment or royalty-free licensing or requires search for IP, the decision to join may inadvertently commit the company to give up major IP rights."). Professor Lemley also notes that twenty-nine of the thirty-six SSOs he surveyed required a nondiscriminatory license under reasonable terms and conditions. *Id.* He further noted that, "relatively few SSOs gave much explanation of what those terms mean or how licensing disputes would be resolved." *Id.* at 1906.

²⁶¹ See Patterson, *Inventions, Industry Standards, and Intellectual Property*, *supra* note 249, at 1070.

²⁶² *Id.*

²⁶³ *Id.*

²⁶⁴ See DeVellis, *supra* note 59.

upon identification of a patent implicated in an adopted or proposed standard. This view appears to impose a counterbalance to *ex post* pricing, but the counterbalance is illusory. When an SSO requires that the patent owner license on reasonable terms and conditions, the adoption of the standard, not the technology's success in the marketplace, acts to inflate the value of the particular technology. The day before a standard is adopted, the technology would have had to compete in the marketplace and have a value set by its inherent advantages, if they existed. The day after the SSO adopts a standard, the market value of the implicated technology increases, though the technology itself has not improved.

The current cases indicate an inertia associated with a completed standard-setting process inhibits alteration of the adopted standard. The *Unocal* case demonstrates this fact: in the face of Unocal's assertion of its intent to maximize its royalty position, CARB did not act to alter the standard it chose.²⁶⁵ It could have adopted the standard Unocal had advocated, a performance standard, rather than a "design" standard that put Unocal in the controlling position. Likewise, JEDEC has not chosen to seek an alternative in the face of Rambus's lawsuits.²⁶⁶

The final set of proposals advocate governmental intervention in cases in which the government is the driver for the standard, or if the standard involves health and safety issues.²⁶⁷ These proposals also would result in *ex post* pricing.

The ideal model would present an opportunity to arrive at *ex ante* pricing, assuring a fair return on a technology but not allowing for inflation due to the technology's being implicated in the standard. The ideal model would not depend upon government intervention.

C. ANTITRUST

As indicated in Part II, *supra*, the problem in standard-setting exists at the confluence of intellectual property law and antitrust law. Several scholars have attempted to find a resolution of the standard-setting dilemma in antitrust law. Some view the current level of scrutiny or the guidelines for assessing anticompetitive conduct in the context of standard-setting as appropriate.²⁶⁸ Others argue for loosening the standard in recognition of the inherently procompetitive attributes of standard-setting.²⁶⁹ Some of the latter category of

²⁶⁵ See *In re Union Oil Co. of Cal.*, No. 9305 (F.T.C. Mar. 4, 2003), available at <http://www.ftc.gov/os/adjpro/d9305/index.htm>.

²⁶⁶ Initial Decision of the Administrative Law Judge 219-24. *In re Rambus, Inc.*, No. 9302 (F.T.C. Feb. 23, 2004), available at <http://www.ftc.gov/os/adjpro/d9302/index.htm>.

²⁶⁷ See Mueller, *supra* note 64.

²⁶⁸ See Balto, *supra* note 23.

²⁶⁹ See Teece & Sherry, *supra* note 56.

commenters argue for expanding the role that SSOs play in a licensing and royalty setting.²⁷⁰

David Balto views standard-setting as having procompetitive effects in increasing price competition, compatibility and interoperability, and in allowing increased use of particular technologies.²⁷¹ On the other hand, Balto identifies the anticompetitive potential resulting from collusive conduct.²⁷² In the past, participants have used standard-setting organizations to establish a monopoly or to exclude technology that was at least competitive if not improved over the then controlling standard.²⁷³ Thus, standard-setting can “thwart innovation or entrench an older standard . . . Standard setting can also provide a forum for collusion, either tacit or explicit Standard setting may adversely affect competition procedurally or substantively.”²⁷⁴

Professor Lemley expresses a concern over the threat of governmental action, particularly, “overzealous antitrust enforcement.”²⁷⁵ Former FTC Commissioner Deborah K. Owen has offered four tenets that would ease antitrust scrutiny of standard-setting. Ms. Owen’s position is:

First, a firm attempting to influence standard setting in an association should scrupulously abide by the procedural rules of the organization—both their letter and spirit Second, a standard setting organization may reduce its antitrust risk by including representatives from different levels of the industry, and in particular both buyers and sellers, in the standard setting process Third, a standard setting body may reduce its antitrust risk by having a reasonable basis in fact and in science for the standard that it promulgates Fourth, in general, agreements among competitors to manufacture or sell only products that comply with an industry standard are risky. Stated differently, an association’s product standards should generally be voluntary rather than mandatory. One of the factors that the Commission considers is what efforts, if any, the association took to enforce its rules against noncomplying members.²⁷⁶

²⁷⁰ See Patterson, *Inventions, Industry Standards, and Intellectual Property*, *supra* note 249.

²⁷¹ Balto, *supra* note 23, at 3-4.

²⁷² *Id.* at 4.

²⁷³ *Allied Tube & Conduit Corp. v. Indian Head, Inc.*, 486 U.S. 492 (1988).

²⁷⁴ Balto, *supra* note 23, at 4.

²⁷⁵ Lemley, *supra* note 30, at 1892. Professor Lemley advocates reliance on SSO self-governance with standard-setting’s being subjected to antitrust scrutiny only reluctantly. *Id.* at 1969.

²⁷⁶ Deborah K. Owen, Comments before the Compressed Gas Association at its 1994 annual meeting in Washington, D.C., in David A. Bagwell, “Keeping Antitrust Simple: ‘Your Momma’s

Advocates of the so-called Chicago school of antitrust analysis would argue that there should be little if any government intervention where, as with private standard-setting, there are strong indications of market efficiency. They recognize a need for government involvement only in the presence of agreements or mergers that concentrate market power to a very high degree.²⁷⁷ This view would comport with those that suggest a reduced level of antitrust scrutiny for per se legality of standard-setting activities.

Professor Weiser offers the view that the Internet provides a model for standard-setting that minimizes governmental regulation and reliance on self-regulation.²⁷⁸ Biester echoes that view, relying on the antitrust enforcement guidelines promulgated jointly by the Department of Justice and the FTC and a series of pooling review letters issued by the FTC.²⁷⁹

Professors Teece and Sherry join in expressing concern about an aggressive FTC. They advocate that the FTC regulate sparingly and act on a case-by-case basis, asserting that no " 'one size fits all' antitrust policy is appropriate."²⁸⁰ Teece and Sherry accept that superior technology deserves its inflated position (1) as an incentive to invest, (2) to satisfy the market's need or desire for compatibility, and (3) to overcome inertia to change. They accept that once a patent is adopted as

Rules for Attending Meetings," 48th Annual Spring Meeting, ABA Section of Antitrust Law 32-33 (Apr. 7, 2000), available at <http://www.abanet.org/ftp/antitrust/committees/counsel/keepanti.doc>. Ms. Owen's first point demands scrupulous compliance with a duty to disclose and licensing obligations.

²⁷⁷ Malcolm B. Coate & Jeffrey H. Fischer, *Can Post-Chicago Economics Survive Daubert?*, 34 AKRON L. REV. 795, 796 (2001). Coate and Fischer cite works by Judges Bork and Posner. See also Lloyd Constantine, *Challenges to the Chicago Approach: An Antitrust Enforcer Confronts the New Economics*, 58 ANTITRUST L.J. 661, 662 (1989):

The core idea of Chicago School antitrust is simply that the antitrust laws were intended to and should focus exclusively on a 'welfare' analysis of restraints of trade. Restraints are bad only insofar as they diminish 'consumer welfare.' The Chicago School definition of 'consumer welfare' focuses on economic efficiency, not on wealth transfers from consumers to producers. The reduction in allocative efficiency that may result from a merger or other arrangement conferring market power may be easily offset quantitatively by even modest efficiencies realized by the arrangement.

Lloyd Constantine was formerly the Chief of the Antitrust Bureau in the Office of the Attorney General in the State of New York.

²⁷⁸ Weiser, *supra* note 28, at 846 ("The FCC's order is a model, however, in avoiding unnecessary government standard setting by providing incentives for private parties to do so.").

²⁷⁹ Edward G. Biester, III, *An Overview of the IP-Antitrust Intersection: Reevaluating the 1995 Antitrust Guidelines for the Licensing of Intellectual Property*, 16 ANTITRUST 8, 13 (2002) ("The Guidelines have stood up because they articulate efficiency and consumer benefits and competitive concerns and stress the flexibility of the rule of reason. The Agencies should hold that course."). These letters will be discussed in greater detail in Part V of this Article, *infra*.

²⁸⁰ Teece & Sherry, *supra* note 56, at 1985-87.

a standard the patent owner is “locked-in.”²⁸¹ However, they assert that alternative technologies, pre-existing blocking patents, and subsequent developments may displace and, therefore, limit the patent owner’s *ex post* advantage.²⁸²

The professors assert that the law should distinguish between active manipulation within the standard-setting process (i.e., modifying the patent to cover the standard or advocating a standard that implicates a participant’s patent), deserving a harsher remedy than passive manipulation (i.e., failure to disclose an implicated patent).²⁸³ The professors posit that passive manipulation, though a major focus of antitrust concerns in standard-setting, is less likely to succeed.²⁸⁴

Teece and Sherry criticize the current remedies sought in cases like *Dell* and *Rambus*: that is, the loss of the right to enforce where a participant has not disclosed implicated patents, the equivalent of a forced royalty-free license.²⁸⁵ They assert that royalty-free licensing may be simple and clear but offers a disincentive to research and development.²⁸⁶ They argue against the negotiation role for SSOs²⁸⁷ and recognize that the RAND licensing requirement merely institutionalizes *ex post* valuation.²⁸⁸

Professors Teece and Sherry assert that experimentation is necessary and should not be endangered by overly active antitrust supervision and intervention, which runs the risk of delaying the adoption of standards, thereby reducing the economic gains from standardization and reducing social welfare generally.²⁸⁹ Therefore, they propose that “antitrust authorities must regulate sparingly, with no presumption that a ‘one size fits all’ antitrust policy is appropriate”²⁹⁰

Professor Michael Carrier accepts the thrust of the Teece and Sherry article—that antitrust scrutiny should be limited.²⁹¹ Rather than advocating that limitation on antitrust scrutiny on pragmatic considerations, he argues that the limitation “can comfortably be grounded in the heart of antitrust: in the lack of significant anticompetitive effects and in the presence of powerful pro-competitive justifications.”²⁹²

²⁸¹ *Id.* at 1940-41.

²⁸² *Id.*

²⁸³ *Id.* at 1941-42.

²⁸⁴ *Id.*

²⁸⁵ *Id.* at 1959-60.

²⁸⁶ *Id.* at 1955.

²⁸⁷ *Id.* at 1959.

²⁸⁸ *Id.* at 1957.

²⁸⁹ *Id.* at 1986.

²⁹⁰ *Id.* at 1913.

²⁹¹ Michael A. Carrier, *Why Antitrust Should Defer to the Intellectual Property Rules of Standard-Setting Organizations: A Commentary on Teece & Sherry*, 87 MINN. L. REV. 2019 (2003).

²⁹² *Id.* at 2037.

Carrier asserts that application of standard analytical structure leads to a limited role for antitrust in a standard-setting.²⁹³ He believes that standard-setting differs from “suspicious arrangements,” which encompass “horizontal competitors that conspire[] to raise price or to reduce output” in standard-setting’s procompetitive character.²⁹⁴ Carrier argues for recognizing that the “limited importance of setting the standard in relation to the benefit of practicing the standard reduces antitrust concern”; and that “the outsider often has influence far beyond its market share.”²⁹⁵ He posits that blanket licenses, cross licenses, and pool licenses operate to “resolve patent bottlenecks among owners of blocking patents that otherwise could unilaterally prevent the practice of a product with multiple patented inputs.”²⁹⁶ Finally, Carrier lists standard-setting’s procompetitive effects and concludes that “antitrust should defer to nearly all SSO rules restricting IP.”²⁹⁷

Curran went Teece and Sherry and Carrier one better. In pursuing his redesigned role for SSOs as the negotiating agent in standard-setting, Curran argues that standard-setting should be designated as *per se* legal.²⁹⁸ While standard-setting is generally recognized as procompetitive, such sweeping changes in antitrust considerations are dangerous. Proposed solutions should not create equivalent or larger problems in different areas. We should not stanch one wound only to open another.

²⁹³ *Id.* at 2019-20.

²⁹⁴ *Id.* at 2032.

²⁹⁵ *Id.* at 2032-33.

²⁹⁶ *Id.* at 2034-35.

²⁹⁷ *Id.* at 2037.

²⁹⁸ Curran, *supra* note 22, at 1003, states:

Under the proposed bargaining system, SSOs would be free to consider specific license terms as part of their negotiations with patent owners and could require patent owners to offer SSO members patent licenses with specific price, output, and length terms before adopting a proprietary technology as an industry standard. By including price as an element of the SSO selection process, SSOs would be free to balance the technological advantages of a proprietary standard against its owner’s pricing requirements, making decisions based both on technical excellence as well as access to the standard.

This proposal compels consideration of whether SSOs have expertise to understand and negotiate a royalty that reflects the actual market value and to gain the expertise and resources to actually carry out the job proposed. In addition, Curran’s proposal depends upon a duty to disclose because the SSO could negotiate only if it knew the putative standard and the patentee. The use of the SSO as the negotiator and effective owner of the standard has the potential for limiting licensees to those who are members of the SSO. To the extent that Curran’s proposal results in limiting access to the license that would be negotiated, he increases the likelihood of antitrust scrutiny and the proposal’s failing a rule of reason analysis.

Professor Patterson, however, advocates an active role for antitrust law in standard-setting to assure that “the patentees of inventions incorporated in industry standards do not extract royalties that go beyond the value of the inventions to include the value of standardization.”²⁹⁹ He proposes that the law recognize the value of standard-setting separate from the inventions that are incorporated from them.³⁰⁰

Timothy Muris, former FTC chairman, laid out an aggressive course for the FTC’s policing of antitrust activity, including standard-setting.³⁰¹ This included *Dell* and the FTC case against Rambus.³⁰²

The Teece and Sherry proposal and other proposals calling for a reduction of antitrust scrutiny of standard-setting as a means to reduce the uncertainty associated with participation in a standard-setting process actually endanger the recognition of standard-setting as procompetitive when its value in the marketplace is at its height and continues to grow with technological development. Standard-setting offers an opportunity for collusive, anticompetitive conduct.

The Balto and Patterson proposals argue for the continuation of rule-of-reason scrutiny to maintain a proper balance between the potential for anticompetitive conduct in a standard-setting situation. These proposals advocate the status quo. Rule of reason analysis is appropriate on a case-by-case basis.

The ideal system would require no alteration to antitrust oversight in recognition of the potential for collusive conduct in negotiations and other activities of the SSO and its members.

No commentators discuss the circumstance in which a standard implicates more than one patent or patentee.³⁰³ Curran argues that multiple patentees

²⁹⁹ Patterson, *supra* note 58, at 2017.

³⁰⁰ *Id.*

³⁰¹ Muris, *supra* note 37, at 363, states:

Four general principles should form the development of the FTC’s competition policy strategy and the preparation of a positive agenda for executing the strategy. The Commission should: Play an active role in promoting competition as the basic principle of economic organization through strong enforcement and focused advocacy; Focus its antitrust enforcement resources on conduct that poses the greatest threat to consumer welfare; Make full use of the agency’s distinctive institutional capabilities by applying the entire range of its policy instruments to solve competition policy problems; and Attach a high priority to improving the institution and process by which antitrust policy is formulated and applied.

Time will tell whether Chairman Muris’s successor, Deborah Platt Majoras, will continue to pursue the current FTC attention to standard-setting.

³⁰² *Id.* at 395-96.

³⁰³ See Klancnik, *supra* note 238. Klancnik’s proposed statutory system would not depend upon

increase the risk of anticompetitive conduct.³⁰⁴ The model proposed would provide for multiple patents and patentees and for licensing the implicated patents to third parties.³⁰⁵

V. THE NEW MODEL FOR SSO PARTICIPATION

The current model is broken. It is not satisfactory because it suffers from a lack of predictability for companies and the accompanying business, as well as legal risks associated with participation in a standard-setting process. As a result, companies that are well informed as to the current state of the law surrounding standard-setting may be rethinking the advantages of participation versus the risks associated with that participation. The current model results in *ex post* basis pricing. The proposals discussed in Part IV, *supra*, offer little or nothing that would alter that result.

This Article proposes a defined path toward a solution. The model will provide predictability in the place of uncertainty, and will provide *ex ante* pricing in place of *ex post* pricing. It will make participation in standard-setting substantially safer from a legal standpoint and will protect intellectual property interests without increasing the risks of antitrust violations. In fact, unless abused, the antitrust risks will be negligible.

Adoption of the proposal propounded here will comfort companies that are disquieted by the risks of participation in the standard-setting process. Those firms could confidently elect to participate, ending the threat to standard-setting, and the economy at large would benefit from a robust standard-setting process.

A. JETTISON DISCLOSURE AS A PRECONDITION TO PARTICIPATION

Disclosure cannot be redeemed and is destined to fail. Disclosure does not and cannot achieve its intended purpose. The duty to disclose is not defined. The duty to disclose is not enforceable. Above all, the duty to disclose is not necessary. Removing the duty to disclose will improve standard-setting processes and will mitigate or remove the risks to participation.

participation. See also Mueller, *supra* note 64. Mueller's system would likewise not depend on participation.

³⁰⁴ Curran, *supra* note 22, at 1004.

³⁰⁵ Standard-setting would find the situation where a third party owns a blocking patent to present the case least subject to control. Once having adopted a standard, resolution may occur only under threat of or actually revising the standard. This situation can be anticipated by assuring that the risks of participation are minimized and that participation is the broadest reasonably possible. See *infra* Part V.

Adopting any model that includes disclosure will only prolong the existing uncertainty that plagues standard-setting today. Participant-patentees will continue to sue for infringement arising from standards in which they participated but made less than a complete disclosure of all their IP interests. Participant-defendants will continue to struggle to define a remedial structure, and the FTC pursuit of antitrust remedies will continue to evolve, infusing standard-setting with continuing uncertainty. SSOs will continue to maintain unenforceable intellectual property policies.³⁰⁶

No commentator has made such a proposal.³⁰⁷ Jettisoning the disclosure requirement is not merely a way to avoid a difficult issue. Some advocate clear communication and enforceability of the duty to disclose,³⁰⁸ however, that result is not possible. While well intentioned, the duty to disclose presents many business and legal risks. It is a victory of form over substance. SSOs use this duty as a means to protect against antitrust liability.³⁰⁹ The FTC makes clear in the *Dell* consent decree that a disclosure policy is not necessary to protect SSOs against antitrust liability.³¹⁰ In other words, the FTC does not increase its scrutiny of standard-setting processes, which do not involve a duty to disclose. The *Rambus* complaint does not alter that duty.³¹¹ In *Unocal* the FTC attempted to imply a duty to disclose where CARB itself did not impose the duty.³¹²

³⁰⁶ Judge Rader put this issue in perspective in his *Rambus* decision:

In this case there is a staggering lack of defining details in the EIA/JEDEC patent policy. When direct competitors participate in an open standards committee, their work necessitates a written patent policy with clear guidance on the committee's intellectual property. A policy that does not define clearly what, when, how, and to whom the members must disclose does not provide a firm basis for the disclosure duty necessary for a fraud verdict. Without a clear policy, members form vaguely defined expectations as to what they believe the policy requires—whether the policy in fact so requires or not. JEDEC could have drafted a patent policy with a broader disclosure duty. It could have drafted a policy broad enough to capture a member's failed attempts to mine a disclosed specification for broader undisclosed claims. It could have. It simply did not.

Rambus, Inc. v. Infineon Tech. AG, 318 F.3d 1081, 1102, 65 U.S.P.Q.2d (BNA) 1705, 1720 (Fed. Cir. 2003) (citations omitted).

³⁰⁷ Prof. Lemley has proposed that SSOs “eschew” the duty to disclose unless the duty is tied to an obligation to license. Lemley, *supra* note 30, at 1960-62. On the other hand, I propose that the duty to disclose be jettisoned and that a detailed license must be negotiated before the standard-setting deliberations begin.

³⁰⁸ *Id.* at 1957-59.

³⁰⁹ See *supra* text accompanying note 46.

³¹⁰ See *In re Dell Corp.*, 121 F.T.C. 616 (1996).

³¹¹ See *Abbott & Gebhard*, *supra* note 192.

³¹² Complaint of the FTC at 17-18, *In re Union Oil Co. of Cal.*, No. 9305 (F.T.C. Mar. 4, 2003), available at <http://www.ftc.gov/os/adpro/d9305/index.htm>.

On the other hand, SSOs have not acted to make the duty to disclose enforceable.³¹³ The SSOs may suspect that if they make the conditions of participation clear and enforceable, the supply of willing participants may dwindle due to the risk to the participant's intellectual property rights. Thus, I propose that the duty to disclose be eliminated as an obligation for participation in standard-setting processes.

The advantages of eliminating standard-setting from the duty to disclose are inversely proportional to the disadvantages of maintaining that duty. The duty to disclose is burdensome. Standard-setting is ill served by any model that causes participant-licensees in the standard-setting process to rely on the existence of a duty to disclose, only to later discover after investing to comply with the adopted standard that the protections intended to follow from a duty to disclose failed.

Determining whether a participant has lived up to a duty to disclose is not possible absent a suit or a participant's blanket disclosure.³¹⁴ To be meaningful and enforceable, an SSO must describe its duty to disclose with sufficient clarity so that a suit could be successfully brought for breach of the duty alone. But defining that contractual duty is not possible for the following reasons.

The current system is affected by the timing of disclosure. The less mature the standard, the broader the reach of the duty to disclose.³¹⁵ The more mature the standard, the more focused the reach of the duty.³¹⁶ In either case, the duty to disclose burdens the participants to search their IP inventories. The larger the IP inventory of the participant, the larger the search burden. The later the duty arises, and SSOs commonly require disclosure as part of the balloting process, the less the search burden.

SSO disclosure requirements do not normally require participants to perform the search.³¹⁷ The search burden may contribute to a systematic inertia, operating against adopting another standard in the presence of disclosed patent rights. The search burden is increased by the difficulties in establishing the scope of the patents that would be subject to the duty to disclose.

³¹³ See Lemley, *supra* note 30, at 1957.

³¹⁴ Taken to an extreme, an SSO could require the participants to maintain a list of each member's patents that fall within the charter of the SSO itself or of individual committees. This approach would impose an onerous burden on all participants, and an even more onerous burden on those participants with large IP portfolios. In adopting such a requirement, the SSO would have to burden all participants with the additional requirement of keeping the list up to date. Confidentiality and patent prosecution concerns would make any such idea impractical.

³¹⁵ The broader the reach, the greater the burden of disclosure or the more likely to expose confidential information.

³¹⁶ In this context, "less mature" means earlier in the deliberations. A more mature standard is one closer to adoption, with greater definition and a narrower scope.

³¹⁷ Lemley, *supra* note 30, at 1905 ("Curiously, very few of the SSO rules I studied require a member to search either its own files or the broader literature to identify relevant IP rights.").

Claim interpretation presents another obstacle to any meaningful duty to disclose. Claim interpretation is anything but predictable. District courts commonly hold *Markman* hearings in patent infringement cases, and one party or both parties appeal the interpretation to the Federal Circuit as a matter of course.³¹⁸ However, any description of the duty to disclose must clarify whether the doctrine of equivalents will form a basis of claim interpretation. Claim interpretation under the doctrine of equivalents is significantly more uncertain than claim interpretation for literal infringement.³¹⁹

SSO policies do not clearly confront whether the duty to disclose is limited to patents or whether it reaches patent applications.³²⁰ The same concerns that give rise to any duty to disclose patents, such as conferring inflated valuation and ceding control over the standard to one participant, exist in the case of patent applications. The same uncertainties attendant to identifying implicated patents exist when the duty to disclose encompasses patent applications. During PTO examination, the claims included in the original application may change dramatically. Claim interpretation is difficult when the claims themselves are uncertain.

Additionally, a participant's disclosure of the existence of a patent application may expose information otherwise held confidentially by that participant. That is, disclosure by its very nature reveals to competitors the direction and relative success of that participant's research and development program.³²¹ The JEDEC disclosure policy encompasses patent applications but does not provide a reciprocal assurance of confidentiality, even though the participant-applicant would disclose to its competitor-participants.³²²

³¹⁸ See *Markman v. Westfield Instruments, Inc.*, 517 U.S. 370, 38 U.S.P.Q.2d (BNA) 1461 (1996) (holding that claim interpretation is a matter of law); see also Cowie & LaVelle, *supra* note 45, at 135-36.

³¹⁹ *Wang Labs., Inc. v. Mitsubishi Elecs. Am., Inc.*, 103 F.3d 1571, 1577, 41 U.S.P.Q.2d (BNA) 1263, 1269 (Fed. Cir. 1977) ("Application of the doctrine of equivalents may allow a patentee to recover for infringement though the accused device falls outside the literal scope of the claims if the differences between the claimed invention and the device are insubstantial.").

³²⁰ The literature commonly advocates that patent applications be included. JEDEC calls for disclosure of patent applications. JOINT ELECTRON DEVICE ENG'G COUNCIL, JEDEC PATENT POLICY, *supra* note 48. In contrast, ANSI's policy is not so clear. AM. NAT'L STANDARDS INST., *supra* note 48. See Cowie & LaVelle, *supra* note 45, at 134-35.

³²¹ The same concerns that underlie disclosing patent applications also underlie disclosure of a participant's ongoing research for which it has not applied for a patent. A manipulating firm could delay applying for a patent until the standard is adopted in the manner that it may continue a patent application. Interestingly, the duty to disclose does not appear to be conditioned upon the execution of a nondisclosure agreement by the recipient-participants.

³²² JOINT ELECTRON DEVICE ENG'G COUNCIL, JEDEC PATENT POLICY, *supra* note 48.

Also, in the case of patent applications, the duty to disclose must describe the information that will satisfy the duty. Rambus's disclosure of a common written description did not satisfy the jury or the FTC.³²³

An expression of a disclosure duty must make clear whether the duty reaches only the personal knowledge of the representative or whether it extends to the company itself. The expression of the duty in *Dell* appeared to be personal, and the FTC made no allegation that the representative had personal knowledge of Dell's patent, but the FTC's case was predicated upon the failure of the company to disclose.³²⁴ Also, a meaningful description of the duty to disclose must define whether an affiliate's, subsidiary's, or parent's patents are included in a participant's duty to disclose.

The opinion of the Federal Circuit in *Rambus* is particularly instructive as to the shortcomings inherent in any duty to disclose.³²⁵ Judge Rader noted that the policies of JEDEC and its parent, the former Electronic Industries Association (EIA), called upon the Committees to "ensure that no program of standardization shall refer to a product on which there is a known patent unless all the relevant technical information covered by the patent is known."³²⁶ Judge Rader observed that "[t]he language of these policy statements actually does not impose any direct duty on members."³²⁷ For the purpose of the opinion, because the participants "treated the language of Appendix E as imposing a disclosure duty," the court accepted that duty.³²⁸ The Federal Circuit opinion considered the extent of Rambus's duty to disclose and concluded, based upon the testimony of Infineon's witnesses, that the scope of the duty was limited to a patent that would have been infringed by the standard.³²⁹ Judge Rader noted that Rambus disclosed the patent in September 1993 and, although that patent was not in issue, it shared the same written description, verbatim, with the patents that were in issue.³³⁰ That disclosure would, therefore, satisfy a broader reading of the duty.³³¹

Judge Rader interpreted that duty in regard to claim construction and found that:

³²³ *Rambus, Inc.*, 318 F.3d at 1085.

³²⁴ *In re Dell Corp.*, 121 F.T.C. at 617.

³²⁵ *Rambus, Inc.*, 318 F.3d 1081.

³²⁶ *Id.* at 1097.

³²⁷ *Id.* at 1098.

³²⁸ *Id.*

³²⁹ *Id.* at 1100.

³³⁰ *Id.* at 1099.

³³¹ *Id.* at 1100. This introduces yet another shortcoming in any expression of the duty to disclose. What is sufficient disclosure of a patent application: the written description, the claims, or the entire application?

The disclosure duty operates when a reasonable competitor would not expect to practice the standard without a license under the undisclosed claims. Stated another way, there must be some reasonable expectation that a license is needed to implement the standard. By the same token, the disclosure duty does not arise for a claim that recites individual limitations directed to a feature of the JEDEC standard as long as that claim also includes limitations not needed to practice the standard. This is so because the claim could not reasonably be read to cover the standard or require a license to practice the standard.

To hold otherwise would contradict the record evidence and render the JEDEC disclosure duty unbounded.³³²

The Federal Circuit opinion went on to consider when the duty to disclose arises and held that, based upon the testimony of Infineon's witnesses, the substantial evidence supported only a conclusion that "the disclosure duty is triggered when work formally begins on a proposed standard" and the policy requires "disclosure of certain 'patents or pending patents'—not disclosure of a member's intentions to file or amend patent applications."³³³

The opinion reversed the denial of Rambus's JMOL by the district court, noting:

[t]he record shows that Rambus' claimed technology did not fall within the JEDEC disclosure duty. The record shows at most that Rambus wanted to obtain claims covering the SDRAM standard. Some of that evidence does not put Rambus in the best light. Rambus thought it could cover the SDRAM standard and tried to do so while a member of an open standard-setting committee. While such actions impeach Rambus' business ethics, the record does not contain substantial evidence that Rambus breached its duty under the EIA/JEDEC policy.³³⁴

³³² *Id.* at 1100-01.

³³³ *Id.* at 1102.

³³⁴ *Id.* at 1104. Judge Prost dissented from the fraud portion of the decision. She reached different conclusions as to the breadth of the duty, and the timing of the duty. *Id.* at 1108. Her dissent underscores the various legal conclusions that can be drawn from the same record in defining the duty to disclose in private standard-setting.

B. REQUIRE THE NEGOTIATION OF A DETAILED LICENSE BEFORE DELIBERATIONS BEGIN

The second component of the standard-setting participation model advanced by this Article is the requirement that the participants in a standard-setting process negotiate a detailed license before the standard-setting deliberations begin. The purpose of this requirement is to take advantage of the uncertainty that exists at the outset of deliberations. The result of this requirement would be *ex ante* pricing, which will allow the owner of patents implicated in the adopted standard to receive value in the market place for the patent's technological contribution, but does not allow the owner to hold up its participant-licensees where the owner has been the beneficiary of the adopted standard. The next section discusses the considerations that underlie the negotiation strategies and then describes the terms of a model license drafted to achieve the benefits identified throughout this Article.

1. *Negotiating Considerations.* The negotiation model advocated here would involve all the participants to a proposed standard-setting. The participants would undertake the negotiations prior to beginning the deliberations over the standard. The participants, not the SSOs, are best positioned to value the standard in the marketplace.

The timing of the negotiations is crucial in avoiding *ex post* pricing inflation. This Article's proposal takes advantage of the fact that, at the outset of the process, no participant would know whether it would be a licensor or a licensee. This uncertainty would best moderate the ultimately negotiated royalty. Each participant would negotiate recognizing the possibility that some other participant's technology may be adopted as the standard and that it will be a licensee.

Firms that choose not to participate would abdicate an opportunity to advocate their technology, which could ultimately cover the entire standard or some portion of it. None of the current proposals deal with nonparticipants, except to recognize that discriminatory licensing would increase the prospect of antitrust scrutiny.

Once the licenses have been negotiated, each participant would execute the license. Manipulating the standard-setting process by resigning becomes useless for several reasons. First, each participant will have licensed any implicated patents for the purpose of practicing the standard. Secondly, each participant will be bound for the term of the license even if it were to resign from the particular standard-setting process. If a participant resigns before the license is negotiated, it loses the opportunity to advocate its technology, thus substantially reducing the probability that its technology will be implicated in the ultimately adopted standard.

The proposal advocated by this Article provides that nonparticipants would be eligible for a license to the standard on the same terms as the participants. The nonparticipant must offer rights to any implicated invention it owns on the same terms as the license negotiated by the participants. The parties would be no worse off than they are under the current model when a standard implicates a patent owned by a nonparticipant that does not wish to execute the license negotiated for the standard-setting.

2. *Advantages.* Negotiating a detailed license before the deliberations begin has several advantages. First among them is that the license will be negotiated on an *ex ante* basis, removing the inflationary *ex post* pricing, but, as opposed to royalty free licensing, allowing the patent owner royalty income. It further avoids the undefined RAND license and its inherent pressure for *ex post* pricing.

Second, the scope of the license will be limited to the use of the technology involved in the standard. Therefore, all those who sign the license would be protected when practicing the standard. Third, as opposed to all the proposals previously discussed, the model license is not dependent upon one patent owner.³³⁵ More than one patent may be implicated in the standard. Fourth, the model license is open to all, even parties that did not participate in the standard-setting process on the condition that the prospective non-participating licensee is willing to sign the negotiated license agreeing to provide reciprocal rights in any of its patents that are implicated in the standard. Fifth, the use of the model license advocated by this Article would provide a meaningful beginning to the negotiations. The negotiation of the detailed license will not unduly delay or inhibit the beginning of deliberations over the standard. As the model advocated here is practiced and gains acceptance, a version of a license may evolve that would further refine a standard-setting licensing agreement. In such a case, the negotiation of a licensing agreement would focus essentially on the royalty, since the other terms and conditions would have gained broad acceptance, further speeding the negotiation process.³³⁶

³³⁵ See Curran, *supra* note 22, at 984 n.3 who states:

The phrase 'single source' is used herein as a limiting principle, allowing price bargaining to occur only between SSOs and a single patent owner. Accordingly, the single-source rule would exclude pooled, jointly owned, or cross-licensed proprietary technologies from the proposed system of bargaining and price-fixing (although the rule would not exclude bargaining over multiple patents originating from a single source). This limitation is necessary to prevent SSO capture by multiple market participants; without a single source rule, the proposed system of patent price bargaining could quickly turn SSOs into vehicles for anticompetitive harm.

I disagree that the conclusion follows and have included in my proposal a provision for multiple patents and the circumstance that the implicated standards do not cover the adopted standard.

³³⁶ *Id.* at 1005 ("The solution outlined above is subject to two major criticisms: First, that the

Finally, good faith use of this model would avoid antitrust scrutiny and result in standard-setting's being even more procompetitive. The negotiations would take place when the parties are least likely to know whether they will be a licensor or a licensee. The pricing would become more competitive, essentially *ex ante*. The license would be open, both as to participants and nonparticipants. The scope of the license would provide a complete defense in an infringement suit by a participant or subsequent licensee for practicing the standard. So long as the parties negotiate in good faith prior to adoption of the standard, and so long as the standard the license is open, the risk of any antitrust scrutiny would be minimal.

C. MODEL TERMS FOR AN SSO LICENSING AGREEMENT

The FTC has approved many of the terms of this model license in its consideration of proposed pool licenses for MPEG-2 compression technology pool licenses,³³⁷ a proposal for the manufacture of Digital Versatile Discs (DVD) and players in compliance with DVD-ROM and DVD Video formats³³⁸ and a second DVD-ROM and DVD-Video format pool.³³⁹

Pool licensing situations and standard-setting are very similar situations.³⁴⁰ Standard-setting presents pro-competitive benefits beyond those of pool licenses. A pool license is "an agreement of two or more owners of different items of intellectual property to license one another or third parties."³⁴¹ Pool licensing

proposed bargaining process would create undue delays in the standard-setting process, and second, that a system of price bargaining would reduce incentives to innovate and develop improved proprietary technologies." Curran notes that delays exist in the current system. *Id.* at 1005. If all participants were interested in getting on with the standard-setting to get products to market, however, there is a built in incentive to move along, particularly when one party would not know the technologies held by the others and whether it would end up a licensor or licensee.

³³⁷ Letter from Joel I. Klein, Acting Assistant Attorney General, to Garrard R. Beeney, Esq., Sullivan & Cromwell LLP, June 26, 1997, available at <http://www.usdoj.gov/atr/public/busreview/1170.htm>.

³³⁸ Letter from Joel I. Klein, Assistant Attorney General, to Garrard R. Beeney, Esq., Sullivan & Crowell LLP, Dec. 16, 1998, available at <http://www.justice.gov/atr/public/busreview/2121.htm>.

³³⁹ Letter from Joel I. Klein, Assistant Attorney General, to Carey R. Ramos, Esq., Paul, Weiss, Rifkind, Wharton & Garrison LLP, June 10, 1999, available at <http://www.justice.gov/atr/public/busreview/2485.htm>.

³⁴⁰ Balto & Wolman, *supra* note 25, at 454.

³⁴¹ U.S. DEPT OF JUSTICE & FTC, ANTITRUST GUIDELINES FOR THE LICENSING OF INTELLECTUAL PROPERTY, *supra* note 43, at 26 ("These arrangements may provide procompetitive benefits by integrating complementary technologies, reducing transaction costs, clearing blocking positions, and avoiding costly infringement litigation. By promoting the dissemination of technology, cross-licensing and pooling arrangements are often procompetitive."); see *id.* at 26-28 for further discussion; see also Balto & Wolman, *supra* note 25, at 445-53.

presents a greater risk of collusive conduct than a standard-setting environment.³⁴² Participation in the negotiation of the model licenses advocated in this Article would not be limited to those that have implicated technology or those that participated in the development of the standard.

I advocate the same level of scrutiny for the negotiation of standard-setting licenses. Should the parties act collusively, antitrust enforcement is warranted. However, if the SSO and the participants use the model advocated here, there is no need to act collusively and risk antitrust scrutiny.

1. *Scope.* The license advocated here would define the scope as those patents then owned by or subsequently issued to the signatories that are necessary to practice the ultimately adopted standard.³⁴³ The parties would negotiate separately for uses that are outside the scope of the license. This means that even for an implicated patent, if a participant would like to use the patent for a purpose not necessary for practicing the standard, that participant would not be able to rely on the license outlined here but would have to negotiate a separate license with the patent owner.

The license should impose “no obligation on the licensee to use only the licensed patent and explicitly leave[] the licensee free to independently develop [alternative products].”³⁴⁴ The license should make clear that if a patent is invalidated or expires it would no longer be subject to the license.³⁴⁵

2. *Open License.* The license would be open to any nonparticipant willing to assume its obligations,³⁴⁶ that is, the license would be available to any party willing to sign it and thereby provide reciprocal rights in any implicated patent the nonparticipant may own. This arrangement would reduce antitrust concerns about collusion, since antitrust authorities find closed standards suspect,³⁴⁷ and open standards relieve those concerns.³⁴⁸

Use of an open licensing structure as advocated here would negate any need to deal with a right to sublicense in the license. Any potential sublicensee could

³⁴² See Letter from Joel I. Klein to Gerrard A. Beeney, *supra* note 337, at 7.

³⁴³ Disagreements may arise over the term “necessary,” as a question of whether the invention represents a preferred embodiment or economic efficiencies or alternative approaches. Experience will provide the best answers to such questions. Drawing on the model from the MPEG-2 pool, the license could call for the designation of “an independent expert as an arbiter of essentiality.” See *id.* at 3.

³⁴⁴ *Id.* at 4.

³⁴⁵ *Id.* at 5.

³⁴⁶ Lemley, *supra* note 30, at 1916 (“Assuming both conditions are met, it does seem just to permit both members and nonmembers to benefit from enforcement of the license.”).

³⁴⁷ Balto, *supra* note 23, at 4-6.

³⁴⁸ *Id.* at 6.

instead become a licensee. The open license would also avoid any need to limit parties.³⁴⁹

3. *Term.* The license should establish a fixed term which is appropriate under antitrust law in light of the technology that will be the subject of the standard.³⁵⁰ The term should not coincide with the term of the patent. Should the adopted standard subsequently be replaced or modified, those patent owners whose patents are no longer implicated in the standard would no longer be covered under the license as a licensor but would continue to be protected as a licensee for those patents of others that continue to be implicated in the standard.

4. *Royalty.* The participants in the standard-setting would negotiate a defined royalty following the considerations discussed *supra*.³⁵¹ The royalty negotiated by the participants could vary from royalty free to a value based royalty; however, because the negotiations would take place before the standard is identified, the likelihood of the negotiation of an *ex ante* royalty is substantially increased. The royalty would be paid only to the participant(s) whose patents are implicated in the standard, and, where that is more than one participant, the license would contain a provision, as discussed *infra*, for prorating the negotiated royalty. The participants' valuation would be superior to that which could be negotiated by the SSOs. RAND licensing results in *ex post* valuation. *Unocol* and *Rambus* demonstrate the effect in the market when a participant manipulates a standard-setting process and exacts the maximum royalty.³⁵²

So long as the parties operate in good faith, the results will be procompetitive. Good faith here means that the negotiations would not be collusive, would not allocate markets, and would not introduce restrictions or otherwise limit competition.³⁵³ Anticompetitive concerns are dampened substantially in that licenses are open and limited to the standard. The negotiations should be judged on actual results and the process.

³⁴⁹ Curran, *supra* note 22, at 991 states:

When firms collaborate to set product standards, they face an important choice about the type of standard they want to adopt. Technical standards come in two flavors: 'open' standards, which are not controlled by any one party and can be adopted freely by all market participants; and 'closed' or proprietary standards, which may be used only with the permission of the standard owner.

See also Balto, *supra* note 23, at 6.

³⁵⁰ Letter from Joel I. Klein to Gerrard A. Beeney, *supra* note 337, at 4.

³⁵¹ See *supra* Part V.B.1 for a discussion of negotiation considerations.

³⁵² See generally *Rambus, Inc. v. Infineon Tech. AG*, 318 F.3d 1081, 65 U.S.P.Q.2d (BNA) 1705 (Fed. Cir. 2003); *In re Union Oil Co. of Cal.*, No. 9305 (F.T.C. Mar 4, 2003), available at <http://www.ftc.gov/os/adjpro/d9305/index.htm>.

³⁵³ See U.S. DEPT OF JUSTICE & FTC, ANTITRUST GUIDELINES FOR THE LICENSING OF INTELLECTUAL PROPERTY, *supra* note 43, at 17-23.

An issue of royalty sharing arises when more than one company owns patents implicated under the standard. Based upon an idea derived from the pool licenses,³⁵⁴ I advocate a royalty provision that provides for the designation of a technically qualified neutral arbiter to break the negotiated royalty into component shares when more than one company owns the patents, or prorates the negotiated royalty to the party or parties that have patents implicated but which do not cover the entire standard.

The negotiated royalty would assume that one or more participants would have patents that cover the entire standard; that is, the entire royalty would be payable only to the extent that one or more participant's patents cover the entire standard. Should that prove not to be the case, the royalty allocation process would allocate only that portion of the royalty covered by the participants' patents, with the remainder of the royalty not to be paid unless a subsequent signatory or signatories have patents that cover the remainder of the standard.

Only participants that own patents would receive a share of the royalty. Those participants that do not own implicated patents would not share in the royalty allocation but would benefit from an *ex ante* royalty, a defined scope of license, and vastly increased certainty in practicing the standard.

5. *Grantback*. Another option is negotiation of a grantback clause, which provides for the participants to license subsequent improvements of the standard to both the initial and subsequent signatories.³⁵⁵ Once outside the standard, the standard-setting license would no longer control. This provision is subject to antitrust scrutiny by reducing licensees' incentives to innovate.³⁵⁶ In cases in which the grantback and underlying license are of limited duration and not coercive, such a provision may well benefit the standard-setting process and pass antitrust scrutiny.³⁵⁷

VI. CONCLUSION

Standard-setting is increasingly important in facilitating fast-paced technological development and increasing competition in today's world. At this time, when SSOs are recognized as an asset in our economy, the uncertainty surrounding their activities has increased to an extent that endangers their

³⁵⁴ See Letter from Joel I. Klein to Gerrard A. Beeney, *supra* note 337, at 4.

³⁵⁵ See Balto & Wolman, *supra* note 25, at 437-38.

³⁵⁶ See U.S. DEPT OF JUSTICE & FTC, ANTITRUST GUIDELINES FOR THE LICENSING OF INTELLECTUAL PROPERTY, *supra* note 43, at 28-29; see also Letter from Joel I. Klein to Gerrard A. Beeney, *supra* note 338, at 8.

³⁵⁷ See Letter from Joel I. Klein to Gerrard A. Beeney, *supra* note 338, at 8-9.

effectiveness and may cause companies to reduce their involvement in standard-setting activities.

The current model for participation in standard-setting relies on a vague and toothless duty to disclose and a further duty to license implicated technology on either a royalty-free or reasonable terms and conditions basis. Three recent cases have exposed the defects in the current model.

The standard-setting process would be well-served to adopt the comprehensive model advocated by this Article. The new model would eliminate the duty to disclose. In doing so, this proposal would remove the uncertainties and significant risks associated with that duty.

The proposal advanced here would further require the negotiation of a defined license between the participants, and prior to deliberations, to adopt a standard. This Article also describes the critical provisions of such a license and offers authority for satisfaction of antitrust scrutiny.

First, the proposed license would define the scope of the license as any IP necessary to practice the adopted standard. Second, the license would be open, allowing the licensing of non-participating parties to practice the standard by which the non-participant would reciprocally license any of its IP necessary to practice the standard. Third, the proposed license would establish a defined royalty for implicated IP. The royalty would most resemble *ex ante* valuation because, at the time the royalty is negotiated, the standard would not be known and no participant would know whether it would end up being the licensor or the licensee. Fourth, the license would be for a fixed term or the term of the standard, whichever is less. Fifth, the model license discusses a grantback provision.

The adoption of this model will remove the current uncertainty and provide standard-setting participants confidence in their decision to participate. By facilitating current levels of participation or increasing them, SSOs and participants may pursue their beneficial purposes confidently.

