RAMBUS, N-DATA, AND THE FTC:
CREATING EFFICIENT INCENTIVES IN
PATENT HOLDERS AND OPTIMIZING
CONSUMER WELFARE IN STANDARDS-
SETTING ORGANIZATIONS

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ABSTRACT
This paper analyzes the Federal Trade Commission’s (“FTC”) actions in regards to standards-setting organizations (“SSOs”). After documenting the FTC’s actions in the cases of In re Dell Computer Corporation, In re Rambus, Inc., and In re Negotiated Data Solutions, LLC, I provide a law and economics analysis and present recommendations concerning two of the biggest issues in SSOs: RAND commitments and patent disclosure. The former can be dealt with using contract law, while the latter can be dealt with using contract law and patent pools overseen by the FTC. The FTC should choose enforcement mechanisms that will incentivize SSO members to act in a socially optimal manner. The FTC should generally limit itself to the use of antitrust powers, and make sure to give a meaningful limiting principle if unfair competition powers must be used.

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I. INTRODUCTION

Currently, there are a large number of standards-setting organizations ("SSOs") in the United States. There is a diversity of opinion as to what the best practices should be for such organizations, and whether and how much the government, and especially the Federal Trade Commission ("FTC"), should regulate these organizations. Most commentators agree that any one solution will not apply to all situations, and that the government should not impose overly strict regulation. Nevertheless, governmental guidance can enhance the SSO participation process and encourage the adoption of best practices that will benefit SSO participants and the public. However, the FTC must take care to not over-regulate and cause chilling of participation by vital member firms.

In general, the FTC should use its antitrust powers when it does intercede in the standards setting process, and use unfair methods of competition ("UMC") powers only rarely. There is potential for two types of problems in SSOs: nondisclosure of patents and failure to license on RAND terms. The former can usually be dealt with using contract law and the latter can usually be dealt with using contract law and patent pools (with FTC input in the form of advisory opinions pertaining to any licensing arrangements or royalty rates). UMC powers should only be used in the rare instances where antitrust law cannot adequately protect consumers, and even then, the FTC should make sure consumers are really affected. When the FTC does step in with its already-controversial UMC powers, it needs to provide a meaningful limiting principle to guide SSO activity and to lend more certainty to the standards-setting process.

In Part I, I discuss what standards are and give an overview of

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2 Because of the FTC’s mandate to protect consumer welfare, it is best suited to deal with problems in standards-setting organizations because standards have a high potential to read on non-member organizations and consumers. See Nancy L. Sander, Note, Health Care Alliance—Good Medicine for an Ailing Health Care Industry, or Antitrust Illnesses to Fence In?, 27 U. Tol. L. Rev. 687, 701 (1996) (stating Congress’ intent was to grant the FTC broad power in order to protect consumer welfare). Also, the FTC has made several controversial rulings in recent years concerning SSOs and thus offers more opportunity for scholarly study and criticism.

SSOs. In Part II, I discuss how the FTC has ruled on SSOs, beginning with the 1996 Dell case and ending with the N-Data case. In Part III, I present a law and economics analysis of the situation with standards-setting organizations, and explain why the exercise of the FTC’s unfair competition powers can reduce the efficiency of these organizations and lead to reduced social welfare. I conclude with my views on what the FTC can and should do to guide us away from problems with antitrust and unfair competition violations in the area of standards setting.

II. WHAT ARE STANDARDS AND WHAT ARE STANDARDS-SETTING ORGANIZATIONS?

A. What are Standards?

Herbert Hovenkamp defines standards as “any set of technical specifications which either does, or is intended to, provide a common design for a product or process.” Standards can be found in a variety of areas, ranging from low-tech to high-tech. Standards benefit consumers. Without standards, for instance, we would never know if our electrical appliances would work in any given location. Standards also benefit consumers because of the “network effect” in which a product gains value based on the number of other people who are using the product. For instance, my telephone would be worthless if I could not use it to talk to other people, which requires other people to have a standard telephone and requires a standard telephone network that functions regardless of the long-distance provider I am using.

Industry standard setting generally involves two types of standards: interoperability standards and design standards. Interoperability standards ensure the compatibility of products made by different manufacturers, and include performance standards that ensure that all implementations of the standard meet a certain threshold of performance. Design standards describe the specific design required for a particular product. This paper

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6  See id. at 1916.
mainly involves interoperability standards. Because a manufacturer would be at a distinct disadvantage if he were unable to provide a product that met interoperability standards, intellectual property rights are usually more important with interoperability standards. Therefore, antitrust and unfair competition violations are more common with interoperability standards.

B. What are Standards-Setting Organizations?

Standards-setting organizations are groups that meet to adopt uniform standards for a certain subset of goods or services. They are often comprised of competitors within an industry. Some SSOs, which are of particular interest in this paper, strive to make competing products interoperable. SSOs typically consist of an administrative group and a plurality of working groups. An administrative group takes care of issues that affect all of the working groups, such as setting by-laws. A working group meets to draft a specification of the standard and usually consists of engineers or other technical experts. The standard-setting process entails evaluating members' contributions on their technical merits. From this analysis, the SSO selects a set of tech-

7 The intellectual property rights in interoperability standards are more contentious because they typically affect network markets. Network markets are markets in which a good becomes more valuable when more consumers are using that good. Mark A. Lemley, Intellectual Property Rights and Standard-Setting Organizations, 90 Cal. L. Rev. 1889, 1896 (2002). Intellectual property rights in such goods could be more valuable in such markets, so patent holders bargain harder to protect these rights.
9 Lemley, supra note 7, at 1892.
15 Miller, supra note 12, at 365.
nologies as the industry standard.  

SSOs can adopt either an “open” standard or a “closed” standard. Open standards “are not controlled by any one party” in the standard-setting body “and can be adopted freely by all market participants.” Closed standards often involve patented technologies and can only be used with the permission of the standard owner. Occasional “hybrids” between open and closed standards may occur. Generally, open standards are open to all comers, whereas closed standards have occasionally been the subject of antitrust scrutiny for refusal to deal with competitors by not allowing new entrants. Standards can also occur in the context of a patent pool. “A patent pool involves a single entity, . . . that licenses the patents of two or more companies to third parties as a package.” It typically involves an agreement among patent holders, a licensing agent, and “an independent patent expert to determine whether a patent in the pool is in fact essential . . . .” In this paper, I only refer to closed standards.

16 Lemley, supra note 7, at 1892.
18 Id.
19 Raymond Gifford, Standards in the Digital Age, PROGRESS & FREEDOM FOUNDATION, Mar. 2005, available at http://www.pff.org/issues-pubs/pops/pop12.2europestandards.pdf. Occasionally, an open standard will slowly evolve into a closed standard or a plurality of open standards. As refinements are added to an open standard, the SSO needs to put more effort into making sure all refinements are backwards compatible. The output of effort required makes firms hesitant to sign over patent rights. Eventually, there are patents involved in a purportedly “open” standard, leading to a hybrid. Sometimes, the desire for backward compatibility is deserted altogether and branches are created in the open standard after the SSO participants decide it is no longer worth their while to keep one open standard.
20 Mark A. Lemley, Antitrust and the Internet Standardization Problem, 28 CONN. L. REV. 1041, 1083–84 (1996). Lemley also says “antitrust might treat access to a standard-setting organization . . . as an ‘essential facility[,]’” though he pointed to no instances where this has occurred. Id. at 1084.
22 Id. at 134–35. In contrast, SSOs require patent holders to license their patents, but no agreement is made up front to create a patent pool or to license everything in a package with the help of a patent expert. Furthermore, the purpose behind the SSOs themselves is to come up with the standard and deal with licensing through bylaws or other means. See Lemley, supra note 7, at 1906.
23 Specification of RAND license terms and nondisclosure of patents included
Special problems can arise with the use of patented technologies because the patent owner could come away with huge amounts of market power that could “hold-up” the use and adoption of the standard.\textsuperscript{24} By virtue of their ownership of patents essential to a standard for which there may be no competitive products, patent owners could have the ability to reduce output, raise consumer prices by increasing costs to competitors, or excluding competitors. Such abilities equate to a market power in the relevant market for the standard. In order to get around this, SSOs implement (through their by-laws) patent policies such as mandatory disclosure,\textsuperscript{25} waiver of patent rights,\textsuperscript{26} or a requirement to license under reasonable and nondiscriminatory (RAND) terms.\textsuperscript{27}

However, SSOs are at risk of greater antitrust scrutiny when licensing terms and royalty rates are too specific. When terms are too specific, it can be considered price-fixing, which is a per se
antitrust violation. As American National Standards Institute’s General Counsel observed, “discussing licensing issues may impose a risk that the SDO and the participants will become targets of allegations of improper antitrust conduct.” In addition, SSOs fear being seen as a buyer’s cartel that suppresses a patentee’s royalty rate. Therefore, SSOs typically make any RAND language or disclosure requirements vague. This vagueness, in turn, leads to the problems that I study in the rest of this paper.

C. SSO Governance

SSOs often have by-laws aimed at preventing anticompetitive behavior by their members. The FTC sees this as an agreement between competitors, and such agreements are subject to heightened scrutiny due to the possibility of consumer harm. If other mechanisms cannot protect consumers, the FTC may get involved and punish any antitrust or unfair competition violations. Two of the most common mechanisms (outside of the FTC’s scope) used to enforce SSO bylaws are contract law and

28 Curran, supra note 17, at 994. See also 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, 102 (2002) (stating that because SSOs fear being accused of price fixing, or other violations of anti-trust laws, SSOs are reluctant to specify royalty fees).


31 See Cowie & Lavelle, supra note 28, at 145.

32 Lemley, supra note 7, at 1901.

SSOs frequently use formal or informal mechanisms, such as rules governing the ownership of IP or joint defense arrangements, to lessen an IP owner’s control over a standard they adopt. These arrangements may themselves be challenged as anticompetitive, but they may also be necessary to ensure that competition in a network market isn’t disrupted by IP owners.

Id.


34 The Department of Justice or State Attorney General may get involved, or there may be a lawsuit by a private plaintiff. However, in this paper I only discuss FTC actions.
equitable estoppel.\footnote{35 See Lemley, supra note 7, at 1914, 1918.}

SSOs often involve agreements by members to abide by rules, so their policies are enforceable through contract law.\footnote{36 Id. at 1909–16.} However, such enforcement will not protect consumers in all instances because SSOs do not always write the rules into formal contracts.\footnote{37 See id. at 1910.} Furthermore, there is often a question of whether a member actually agreed to the contract.\footnote{38 See id.} Most importantly, the contracts are typically written to benefit SSO members rather than consumers of products made using the standard.\footnote{39 See Teece & Sherry, supra note 5, at 1927–28.} The contracts can indirectly benefit these consumers because no one manufacturer will be harmed and forced to raise prices or go out of business.\footnote{40 See Kraig A. Jakobsen, Revisiting Standard-Setting Organizations’ Patent Policies, 3 NW. J. TECH. & INTELL. PROP. 43, 43, 51 (2004).} However, consumer benefit is not the purpose of the contracts.\footnote{41 See Brian Cook, Note, Clearing a Path for Digital Development: Taking Patents in Eminent Domain Through the Adoption of Mandatory Standards, 82 S. CAL. L. REV. 97, 106 (2008) (stating that the purpose of a typical SSO agreement is to minimize the risk of blocking patents by having SSO members disclose potential patent conflicts).}

Alternatively, those injured by an intellectual property (“IP”) owner could turn to equitable estoppel for remedy.\footnote{42 Lemley, supra note 7, at 1918. Equitable estoppel can be used as a defense to patent infringement if the infringer can show that he relied on the misleading conduct of the patent holder. This is well suited for those situations in which patent holders fail to disclose their IP rights—one of the most common problems in SSOs. The doctrine of equitable estoppel can be applied to circumstances where there is a “duty to speak” but the patent holder remained silent. Furthermore, no intent to mislead is required. The only question is whether the patentee’s action gave rise to an inference that he would not enforce the patent in question. Id. (quoting A.C. Aukerman Co. v. R.L. Chaides Constr. Co., 960 F.2d 1020, 1043 (Fed. Cir. 1992)).} However, this requires reliance, which would not adequately protect the average consumer because most courts require a showing of a privity relationship between the infringer and plaintiff that leads the infringer to rely on what the plaintiff has implied about enforcement of the patent.\footnote{43 See Cowie & Lavelle, supra note 28, at 103–09.} Therefore, in the standards-setting context, only members of the SSO can use equitable estoppel.

While either the Department of Justice (“DOJ”) or the FTC can take action, the FTC has most often taken the lead in regards to antitrust and unfair competition violations in SSOs. The FTC is
in the best position, given its mandate to protect consumers,\textsuperscript{44} to step in where contract law and equitable estoppel fail. However, it is often unclear whether it is better to use the FTC’s antitrust or unfair competition powers. The FTC’s antitrust and unfair competition powers are compared and analyzed in Part III of this paper.

III. WHAT HAS THE FTC SAID ABOUT SSOS PREVIOUSLY?

A. Dell

Dell participated in the Video Electronics Standards Association (“VESA”) and did not disclose an important patent (the ‘481 patent) that related to the standard.\textsuperscript{45} The FTC found that the standard would not have incorporated Dell’s patent had VESA known of the patent.\textsuperscript{46} The FTC found Dell in violation of Section 5 of the Federal Trade Commission Act (“FTC Act”)
\textsuperscript{47} and barred Dell from ever enforcing that patent again against “any person or entity, [who] by using or applying VL-bus in its manufacture of computer equipment, has infringed the ‘481 patent.”\textsuperscript{48} The FTC imposed compulsory licensing without remuneration as the remedy for Dell’s anticompetitive behavior.\textsuperscript{49}

There was a disagreement between the majority and the dissent as to whether Dell’s actions were in bad faith or misleading, and whether the SSO even actually required disclosure of all patents. The dissent thought the patent disclosure policy was very unclear and might have just “encouraged” rather than “required”

\textsuperscript{44} See 1 Stephanie W. Kanwit, Fed. Trade Comm’n, § 1:2 (2007 ed.) (explaining the mandate and goals of the FTC).

\textsuperscript{45} In re Dell Computer Corp., 121 F.T.C. 616, 624 (1996) (citations omitted). VESA asked its members to certify whether they had any patents, trademarks, or copyrights that conflicted with the proposed VL-bus standard; Dell certified that it had no such intellectual property rights. After VESA adopted the standard—based in part, on Dell’s certification—Dell sought to enforce its patent against firms planning to follow the standard.

\textsuperscript{46} Id.

\textsuperscript{47} Id. at 618.

\textsuperscript{48} Id. at 620.

\textsuperscript{49} Id. at 620–21.
patent disclosure. The majority held the entire Dell organization liable based on the actions of one Dell representative to VESA. The dissent disagreed, contending that the majority should not have imputed Dell’s corporate knowledge to the representative. In my opinion, the reality falls somewhere in between. SSOs should have the requirement that corporate counsel, preferably patent counsel, list out the patents that cover the proposed standard. However, this should be done soon before the final decision-making concerning the standard takes place. It would be a complete waste of effort to have the patent counsel involved from the beginning while the standard is developing, since some members might have huge patent portfolios and the standard itself is a moving target such that a patent search done at an early point could be worthless.

The dissenting Commissioner, Mary L. Azcuenaga, criticized the majority for effectively imposing a “strict liability standard, under which a company would place its intellectual property at risk simply by participating in the standards-setting process.” She noted that being aware of a patent does not necessarily mean Dell was aware of an infringement, given the uncertainty of determining patent infringement. Other commentators have noted that it is often difficult or impossible for large firms to know exactly what is in their portfolio and whether any given standard infringes it, especially since standards negotiation.

50 See In re Dell, 121 F.T.C. at 624 n.1.
51 Id.
52 Id. at 641. At least one scholar has developed model SSO by-laws. Nicos Tsilas’s by-laws would make clear that the ongoing disclosure obligation involves only the actual (and not constructive) knowledge of the member’s representative and declining to impute corporate knowledge of patent information to the representative. Nicos L. Tsilas, Toward Greater Clarity and Consistency in Patent Disclosure Policies in a Post-Rambus World, 17 HARV. J.L. & TECH. 475, 479, 503 n.120 (2004).
53 In re Dell, 121 FTC at 630 (Azcuenaga, C., dissenting). The majority did not actually impose a strict liability standard, but Commissioner Azcuenaga opined that the end result was the same. If there were any non-disclosed patents whatsoever, regardless of the reason or the intent, Dell would be liable under the majority’s view. Commissioner Azcuenaga stated that the majority did not correctly handle factual questions of intent and knowledge. The majority, in effect, stated that since someone at Dell knew of the patents, the representative did. Id. at 629–30.
54 Id. at 630.
55 Id. at 630 n.5.
56 See Letter of Dan Bart, Electronic Industries Association (EIA)/Telecommunications Industry Association (TIA) Vice President, to Federal
processes create a moving target. Requiring full disclosure could “chill the participation of those firms.”

Some commentators state that the chilling effect is overstated, since many SSOs already impose full disclosure requirements and large firms have teams of patent lawyers to take care of the large patent portfolios. However, I concur with Commissioner Azcuenaga (and with many SSOs who commented during the public comments period) that there should not be an effective strict liability standard concerning the disclosure requirement. The majority never did factual inquiries to see if there was intent to withhold patent information. In fact, for all the majority knew, there was a full patent search done and one or two patents were missed. If corporations see that their patent portfolio could be at risk due to one inadvertent misstep, they will be less likely to participate in SSOs.

Furthermore, even where SSOs do already impose this duty, patent lawyers are not always there to sign the documents or hear about the standards. In fact, members often send engineers of lower levels of experience since they are the ones considered to have the most time to sit in the standards meetings. Engineers are excited about and want to discuss technology, not legal issues. There may not be the greatest communication between these engineers and the firm’s patent lawyers. Critics may say that this is too bad for the member organizations, or that such organizations should have patent lawyers involved at every step of the process. However, having a patent lawyer deeply involved may not be practical, and it is best for all SSO members if companies can participate in SSOs without sending their legal department to all of the meetings. In my view, the best way to...
avoid the problem is to require a patent lawyer to “sign off” on his organization’s patents. It can be left up to the member organizations to decide how much communication needs to go on between the engineer in the standards meeting and the patent lawyer back at corporate headquarters. However, at least this way, organizations will be on notice that a patent lawyer needs to be involved.

Finally, since the full disclosure requirement usually is not at issue until there is a problem, we should not assume that all companies know about it and should not punish them too harshly unless we can show intent to deceive or actual knowledge of a barring patent. As more companies involve their patent lawyers, however, there should be fewer instances of missed patents. Furthermore, with rising patent lawyer involvement, the FTC would have an easier time of proving actual knowledge of a barring patent, since it is the patent lawyer’s job to know about barring patents. It would be a cycle of virtue, then, in which knowledge that the FTC can “catch you” more easily leads member firms to act in good faith, which in turn raises the level of SSO involvement as firms no longer fear barring patents.

Commissioner Azcuenaga also noted that the majority did not make any finding of market power. The FTC is entitled to act in instances where there is harm to consumers but where the defendant’s actions fall short of an antitrust violation (and its concomitant requirement of a finding of market power). However, E.I. DuPont de Nemours & Co. v. FTC held that the FTC should limit this to cases where there is evidence of anticompetitive intent and no legitimate reason for the conduct in question. Furthermore, while there are few standards as to what kinds of practices will be attacked as unfair, the FTC will generally determine actual or potential competitive injury based on economic facts before finding a practice unfair.

60 Id. at 631.
61 Fed. Trade Comm’n v. Sperry & Hutchinson Co., 405 U.S. 233, 244 n.5 (1972). That decision substantially broadened the Federal Trade Commission’s authority to challenge allegedly unfair methods of competition and unfair trade practices even if they violate neither the letter nor the spirit of the antitrust laws. Id.
63 1 Stephanie W. Kanwit, Fed. Trade Comm’n, § 5:4 (2004 ed.). This appears to go beyond the requirement in Sperry & Hutchinson. In that decision, the court asked itself:
In *Dell*, the FTC did not appear to do this. The FTC failed to show any actual or potential competitive injury based on economic fact.\(^{64}\) I agree with Commissioner Azcuenaga that this case should have been held to the antitrust standard that requires a showing of market power.\(^{65}\) It seems a harsh remedy to take a large portion of a company’s patent rights away based on what might have been a mistake and without a finding of market power. If there had been a valid finding of market power or a finding of intent, this remedy might have been fair. Given what the FTC did find (or failed to find), a better remedy would have been based on a finding of who exactly was affected, and allowing those parties to use Dell’s patent without paying any royalties. If nobody actually relied on Dell’s misrepresentation of its patents, there is no reason to punish Dell unless it acted in bad faith. Bad faith in this context would be intent to hide patents, and the FTC did not show such intent.\(^{66}\)

**B. Rambus**

The view that Rambus committed fraud in its dealings with the SSO Joint Electron Device Engineering Council (“JEDEC”) prompted the FTC to file a Section 5 antitrust action against

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First, does § 5 empower the Commission to define and proscribe an unfair competitive practice, even though the practice does not infringe either the letter or the spirit of the antitrust laws? Second, does § 5 empower the Commission to proscribe practices as unfair or deceptive in their effect upon consumers regardless of their nature or quality as competitive practices or their effect on competition?

*Sperry & Hutchinson Co.*, 405 U.S. at 239. The Court answered yes to both, based on legislative history of the Federal Trade Commission Act and prior cases. *Id.* at 239. Unfair methods of competition can injure competitors before the actions rise to the level of an antitrust violation. \(^{64}\) In *re Dell*, 121 F.T.C. at 632 (Azcuenaga, C., dissenting).\(^{65}\) *Id.* at 628–29. Obviously, *Dell* was before *Ill. Tool Works, Inc. v. Indep. Ink, Inc.*, which held that there was no presumption of market power for patent holders in an antitrust context. The concept that a patent cannot be presumed to confer market power on the patent holder is also prominent in the FTC’s own Guidelines for the Licensing of Intellectual Property. In light of these two things, it is not evident that facts similar to *Dell* would lead to a finding of market power today. The U.S. Department of Justice & The Federal Trade Commission, *Antitrust Guidelines for the Licensing of Intellectual Property* § 2.2 (1995); *Ill. Tool Works Inc. v. Indep. Ink, Inc.*, 547 U.S. 28, 31 (2006). *Illinois Tool Works* involved a patent tying case, holding that a plaintiff in a patent tying case is required to prove that the defendant has market power in the tying product. *Id.* at 46. \(^{66}\) In *re Dell*, 121 F.T.C. at 628–29 (Azcuenaga, C., dissenting).
Rambus.\textsuperscript{67} The FTC stated that “through deceptive acts and practices, Rambus obtained monopoly power over the DRAM market . . . .”\textsuperscript{68} The FTC’s goal was to protect standards-setting organizations from bad-faith participants.\textsuperscript{69} However, the Administrative Law Judge (“ALJ”) first ruled in favor of Rambus and dismissed the complaint in February 2004, stating that the FTC failed to sustain its burden of proof that Rambus violated JEDEC’s patent policy.\textsuperscript{70} In particular, the ALJ said that Rambus’s conduct did not amount to deception, and that Rambus had a legitimate business purpose for its actions.\textsuperscript{71} However, in August 2006 the full Commission overruled the ALJ and issued a remedy in 2007 that set maximum royalty rates for the technology in question.\textsuperscript{72}

On April 22, 2008, the District of Columbia Circuit overruled the FTC. The DC Circuit held that the FTC “failed to sustain its allegation of monopolization.”\textsuperscript{73} The DC Circuit stated that the FTC did not prove any deceitful conduct, and even if they had, deceit enabling a monopolist to charge higher prices does not constitute monopolization.\textsuperscript{74} In a speech before the Antitrust Conference on Standard Setting and Patent Pools on October 2, 2008, Commissioner Thomas Rosch stated that he supported a petition for certiorari in this case.\textsuperscript{75}

There are two points that we can take from Rambus. The first is that SSOs need to make sure their patent disclosure policies are clear. The original complaint in Rambus included an unfair

\textsuperscript{67} Tsilas, supra note 52, at 489–90.
\textsuperscript{68} Id. at 490. See also Complaint at ¶¶122–24, Rambus, Inc. v. Fed. Trade Comm’n, 522 F.3d 456 (D.C. Cir. 2008) (No. 9302).
\textsuperscript{71} Id. at *29.
\textsuperscript{73} Rambus, Inc. v. FTC, 522 F.3d 456, 459 (D.C. Cir. 2008).
\textsuperscript{74} Id. at 464.
\textsuperscript{75} J. Thomas Rosch, Comm’r, Fed. Trade Comm’n, Address at the Antitrust Conference on Standard Setting & Patent Pools (Oct. 2, 2008), available at http://www.ftc.gov/speeches/rosch/081002section2rambusndata.pdf. One of his biggest disagreements with the DC Circuit decision appears to be with the establishment of causation of the monopoly power attained by Rambus. See id. Even if this were decided wrongly by the DC Circuit (and I don’t think it was), the rest of the points in my paper concerning RAND and disclosure policies still stand and would address his concerns about causation.
methods of competition theory, which relied on Rambus’ failure to disclose patents as required. However, the evidence presented pointed to mass confusion on the part of member organizations as to what the patent disclosure policies really required. Some members thought they needed to disclose pending patent application amendments. To require this would be to require a patent counsel to be too deeply involved, especially for organizations with large numbers of patents who have hundreds of patent applications and amendments being written at any given time. As in the Dell case, such a requirement could lead to a chilling effect on member organizations. A better idea would be, as in Dell, to require a patent lawyer to sign off close to the adoption of the standard. The FTC would need to be involved less and less as member organizations kept better track of their patents at the optimal time.

The second point is that deception to obtain higher prices does not necessarily exclude rivals or diminish competition and is therefore not, in itself, an antitrust violation. More proof of harm to the competitive process is required. Therefore, it is not necessarily an antitrust violation in the SSO context unless it can be proven that the SSO would have adopted other technologies but for the deception. Since there was not sufficient proof to the contrary, the FTC left open the possibility that JEDEC would have used Rambus’s technologies even if Rambus had disclosed the patents. The only thing JEDEC lost, then, was the possibility to get a RAND commitment from Rambus, which is not in itself an antitrust violation on the part of Rambus. If anything, the failure to get a RAND commitment would help competition, since higher licensing prices would attract competitors to that field. The FTC was wrong that conduct that permits Rambus to obtain higher

76 Complaint at 1–2, In re Rambus, Inc. (Fed. Trade Comm’n 2002) (No. 9302).
78 Id.
79 Rambus Inc., 522 F.3d at 462. Attaining higher prices does not make an antitrust violation. Id.
80 See NYNEX Corp. v. Discon, Inc., 525 U.S. 128 (1998) (establishing that NYNEX committed no violation because Discon only proved that NYNEX’s deception to obtain higher prices affected a single competitor and not the competitive process as a whole); Forsy v. Humana, Inc., 114 F.3d 1467 (9th Cir. 1997) (establishing that monopoly power can only be proven if it can be shown that the corporation had the power to control prices and exclude competition);
prices is anticompetitive, even if that conduct was deceptive and even if it violates a contractual commitment.\textsuperscript{81}

C. N-Data

In a consent decree decided in September 2008, the FTC alleged that Negotiated Data Solutions LLC (“N-Data”) violated Section 5 of the FTC Act by engaging in unfair methods of competition (“UMC”) and unfair acts or practices (“UAP”) related to an Ethernet standard for local area networks (“LAN”).\textsuperscript{82} This case is much different from the other standards-setting cases studied in this paper: \textit{Dell} and \textit{Rambus}. Here, there was no allegation that the patent owner engaged in improper or deceitful conduct to induce the Institute of Electrical and Electronics Engineers (“IEEE”) to specify its technology in the standard.\textsuperscript{83} Instead, the FTC found N-Data’s conduct oppressive and coercive.\textsuperscript{84}

National Semiconductor Corporation (“National”) participated in the IEEE working group for a computer-networking standard.\textsuperscript{85} National disclosed that it had filed for patent protection for an autonegotiation feature used in the standard (referred to

\textsuperscript{81} The holding in \textit{Rambus} can be reconciled with \textit{Walker Process Equip., Inc. v. Food Mach. & Chem. Corp.}, claims by studying \textit{Dippin’ Dots, Inc. v. Mosey}. Dippin’ Dots, Inc. v. Mosey, 476 F.3d 1337, 1346–48 (Fed. Cir. 2007). In a \textit{Walker Process} claim, proof that a patentee has “obtained the patent by knowingly and willfully misrepresenting facts to the Patent Office . . . [is] sufficient to strip [the patentee] of its exemption from the antitrust laws.” \textit{Walker Process Equip., Inc. v. Food Mach. & Chem. Corp.}, 382 U.S. 172, 177 (1965). However, demonstrated fraud is required. \textit{Nobelpharma AB v. Implant Innovations, Inc.}, 141 F.3d 1059, 1068 (Fed. Cir. 1998). A finding of inequitable conduct does not suffice. \textit{Id.} at 1069. Higher thresholds of intent and materiality are required in \textit{Walker Process} claims. \textit{Id.} at 1070–71. In \textit{Rambus}, only deceit was alleged, and even that was not proved. Furthermore, materiality was not proved since there was no evidence that a different patent would have been used by JEDEC but for the deceit. Thus, \textit{Rambus} can be differentiated from \textit{Walker Process} claims without any inconsistency. \textit{Complaint at 1–2, In re Rambus Inc. (Fed. Trade Comm’n 2002) (No. 9302)}.

\textsuperscript{82} \textit{Complaint at 1, In re Negotiated Data Solutions LLC, (Fed. Trade Comm’n 2008) (No. C-4234)}.

\textsuperscript{83} See \textit{id.} at 1–8 (demonstrating that the complaint does not allege deceitful or improper conduct to induce the IEEE).

\textsuperscript{84} \textit{Analysis of Proposed Consent Order to Aid Public Comment at 5, In re Negotiated Data Solutions LLC (2008) (No. 051-0094)}.

\textsuperscript{85} \textit{Id.} at 2.
as “NWay”). National claimed it would license the technology to any requesting party for a one-time fee of $1,000. The standard went forward with NWay included. In 2003, N-Data purchased the NWay patents and rejected requests from companies to license NWay technology for $1,000. Instead, N-Data pursued legal action against the companies for failure to pay the higher royalties.

N-Data’s supposed unfair practices and unfair methods of competition were its reneging on the original license agreement with the IEEE. The majority felt that contract remedies would be ineffective in this case, thus necessitating Section 5 action by the FTC. Finally, given the potential for anticompetitive effects in standards setting, the majority felt that the government should more readily step in by imposing antitrust liability. Further analysis of this case is presented below in Part III, Section B.

IV. CAN THE FTC PREVENT ANTITRUST PROBLEMS IN STANDARDS SETTING?

A. The FTC’s Unfair Competition Powers

The FTC enforces competition and consumer protection laws through Section 5 of the Federal Trade Commission Act. Any conduct that would violate the Sherman Act or Clayton Act would also violate Section 5. “Unfair methods of competition” traditionally included four kinds of acts or practices: 1) conduct violating the letter of antitrust law; 2) incipient violations of antitrust law; 3) conduct violating the “spirit” or policy rather than the technical terms of an antitrust statute; and 4) acts or practic-

86 Id.
87 Id.
88 Id.
89 Id. at 4.
91 Id.
92 Id. at 6.
93 Id.
95 See Fed. Trade Comm’n v. Motion Picture Adver. Serv. Co., 344 U.S. 392, 394 (1953) (showing that Section 5’s purpose was to bolster both the Sherman Act and Clayton Act).
es that violate public policy. This was broadened in *Sperry & Hutchinson* to allow the FTC to challenge allegedly unfair methods of competition and unfair trade practices even if they violate neither the letter nor the spirit of the antitrust laws.

The *DuPont* case set the bar for when and how the FTC could challenge business practices based on unfair methods of competition. The court in *DuPont* noted that the legislative history of the FTC Act indicated that “unfair methods of competition” was left deliberately vague in reaction to the narrow terms of the Sherman Act, which governs antitrust. Congress wanted to provide broader powers to the FTC “as an administrative body of presumably practical men with broad business and economic expertise in order that they might preserve business’ freedom to compete from restraints.” Congress intended to supplement the Sherman and Clayton Acts and ensure that any interstices were filled. However, the FTC was not authorized to bar any business practice that adversely affected competition; the practice also had to be “unfair.” If restraint on competition were the sole criterion, the court feared, the FTC could conceivably interfere with legitimate conduct just because it had an impact on competition.

Therefore, the court in *DuPont* advocated for more clarity and more distinction in the FTC’s actions. Since the distinction between unfair trade practices and restraints on competition is fine, the FTC needs to define the conditions under which certain

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96 Id. at 394–95 (showing one type “unfair methods of competition” are “inciency acts and practices” which violate § 5 of the FTC Act); *Sperry & Hutchinson Co.*, 405 U.S. at 239 (stating that Section 5 applies to “conduct which violates the letter or spirit of the antitrust laws”); *Fed. Trade Comm’n v. Indiana Fed’n of Dentists*, 476 U.S. 447, 454 (1986) (stating that the FTC Act encompasses “practices that the Commission determines are against public policy . . . .”).
97 *Sperry & Hutchinson Co.*, 405 U.S. at 243–44.
99 Id. at 136.
100 Id.
102 See *E.I. DuPont de Nemours & Co.*, 729 F.2d at 136.
103 Id. at 138. The court was concerned about the elusiveness of the term "unfair" and said that it was “often dependent upon the eye of the beholder. A line must therefore be drawn between conduct that is anticompetitive and legitimate conduct that has an impact on competition. Lessening of competition is not the substantial equivalent of ‘unfair methods’ of competition.” Id. at 137–38.
104 Id. at 139.
conduct would be unfair, so that industry knows what they can lawfully do.\textsuperscript{105} According to the court, conduct would be unfair under Section 5 only if there were evidence of anticompetitive intent and the conduct did not have a legitimate business purpose.\textsuperscript{106} Furthermore, the burden of proof is on the FTC to show that the challenged practice had a substantial adverse effect on competition.\textsuperscript{107}

On October 17, 2008, the FTC held a workshop on Section 5.\textsuperscript{108} At this workshop, some commentators called for the idea that, while in theory the FTC can reach beyond the letter of antitrust laws and consider any public values, it should keep intact the idea that antitrust laws are designed to protect competition and not competitors.\textsuperscript{109} In general, the trend in court decisions has been toward a less expansive interpretation of Section 5.\textsuperscript{110} In order to avoid being overruled in the future, it appears that the FTC should make sure that the cases it brings affect competition rather than merely hurt some competitors. The FTC can still bring cases that satisfy economic requirements of antitrust but fall short of an actual antitrust violation.\textsuperscript{111} However, it should make sure in these cases that it gives a meaningful limiting principle and only condemns the narrowest possible set of behaviors. Mere “moral disapproval” should not be sufficient reason to bring

\textsuperscript{105} Id.
\textsuperscript{106} Id.
\textsuperscript{107} Id. at 140.
\textsuperscript{109} Id.
\textsuperscript{110} See, e.g., Leegin Creative Leather Prods., Inc. v. PSKS, Inc., 127 S. Ct. 2705, 2721 (2007) (applying the rule of reason rather than the per se rule to Section 1 interpretation); U.S. v. Microsoft Corp., 253 F.3d 34, 84 (D.C. Cir. 2001) (en banc) (applying the rule of reason rather than the per se rule to Section 2 interpretation).
\textsuperscript{111} This is a “gap-filling” case, since it fills the gap between a full-fledged antitrust violation and what the public might need. Creighton & Krattenmaker, supra note 108, at 2. Examples include oligopolistic price stickiness, and patent trolls such as N-Data. Creighton and Krattenmaker also discuss the use of Section 5 in cases that could have been brought under the Sherman Act but which involve new forms of conduct for which the FTC wants to set “ground rules.” Id. at 3. However, I think using Section 5 in these cases would be a bad idea. The Sherman Act requires a lot of hard analysis in order to be litigated, but its use is much less controversial. If such an action can be brought in the context of SSOs, it should be brought. An action under the Sherman Act would be less likely to create uncertainty among SSO members.
To do otherwise will create too much uncertainty and will chill activity in standards-setting organizations.

**B. Why Was the Use of the Unfairness Doctrine Controversial in N-Data?**

The unfair competition powers of the FTC have always been controversial. In general, there is a lack of consensus on the scope and application of Section 5. Unsurprisingly, this controversy has manifested itself in the N-Data case.

The biggest source of disagreement between the majority and dissent in *N-Data* was whether an unfair method of competition could be found under Section 5 in the absence of liability under the antitrust laws. In this case, the majority felt that applying Section 5 would not unduly harm N-Data since it would not have to pay huge damages under the unfair competition laws as it would if it were found liable for antitrust violations in private actions or DOJ actions. However, the dissent felt that private actions would better take care of the problem in these circumstances. I mostly agree with the dissent, but when the FTC does step in, it can help SSOs by defining a limiting meaningful principle to guide SSO activity in the future. Currently the only meaningful limiting principle applied is not actually meaningful: the activity must be either “coercive, oppressive, [or] have an adverse effect on competition.”

The FTC originally pursued this case as an antitrust case, but

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113 HERBERT HOVENKAMP, FEDERAL ANTITRUST POLICY: THE LAW OF COMPETITION AND ITS PRACTICE 596–97 (3d ed. 2005) (discussing the two competing views that the FTC must concern itself with competition and that the FTC is limited to “identifying practices that are economically anticompetitive”).


117 Suzanne Michel, Assistant Director Office of Policy and Coordination, Presentation before the Minnesota Bar Association Antitrust Section: Standard Setting and Other Hot IP/Antitrust Topics (Dec. 10, 2008).
ultimately concluded that N-Data’s conduct did not violate the antitrust laws.\textsuperscript{118} Furthermore, no anticompetitive purpose or injury to competitors was shown, and these two things must be proven in order for there to be a UMC violation.\textsuperscript{119} As the D.C. Circuit said recently in \textit{Rambus}, trying to attain higher prices is not necessarily anticompetitive, especially since higher prices would attract more competitors, not repel them.\textsuperscript{120} A mere price increase alone is not anticompetitive and does not exclude any competitors.

There was definite potential for consumer injury. However, it is controversial whether this is sufficient for a Section 5 violation, especially since injury must be balanced against benefits and the FTC did no such analysis in this case. Furthermore, it is controversial whether the majority defined “consumers” correctly when it said consumers were affected. Commissioner Majoras had stated that there was not a “finding [of] ‘substantial consumer injury’” because the only parties affected directly by N-Data’s actions were large computer manufacturers.\textsuperscript{121} Obviously, however, anything that damages the computer manufacturers could trickle down to the consumers and result in higher prices. The only questions remaining in my mind are whether the manufacturers could negotiate with N-Data, such that the royalty rates do not increase greatly, and further, whether manufacturers faced with competition will eat some or most of these costs themselves even if royalty rates are increased. However, the FTC made no specific findings about how end consumers were affected by N-Data’s actions.\textsuperscript{122} In short, if the FTC is going to continue on this already-controversial theory of liability, it should measure exactly how consumers are affected, and be sure that it is using its consumer protection powers to protect actual consumers ra-

\textsuperscript{118} See id. There was a debate over whether N-Data already had monopoly power when they reneged on the agreement to sell at a reasonable royalty rate. On one hand, they did have monopoly power because they could be holding up use of the standard by demanding the royalty rate they were demanding. However, N-Data did not have direct ability to control price or limit output, so even if removal of the constraint on the royalty rate might be exclusionary conduct it was not conduct by a monopolist. See id.

\textsuperscript{119} See \textit{E.I. DuPont de Nemours & Co.}, 729 F.2d at 139.

\textsuperscript{120} \textit{Rambus, Inc.}, 522 F.3d at 464.


\textsuperscript{122} See id. at 4–6.
ther than large multinational computer companies.

Now that the FTC has stepped in, it should define a meaningful limiting principle that will guide SSOs in the future. To do otherwise would lend too much uncertainty to the standards-setting process and could chill participation by member firms. SSOs viewing the public record might interpret N-Data to encourage them to take actions with respect to their policies and processes, so the FTC must make sure its decision does not affect an SSO’s flexibility in developing a patent policy that balances the interest of all of its stakeholders.

The only meaningful limiting principle that could have any effect in the N-Data case would be to state that anybody who buys a patent will be bound by the licensing terms of the previous patent owner. In this case, the IEEE could have said at the outset, via a contract, that anybody who buys the patents is bound by the previous terms, or that the patent assurance letters cannot be renegotiated. The parties to this contract would be the member organizations, not consumers, and they would be motivated to make sure the contract protected them from possible patent holdups. Such parties would also be more likely to be capable of bringing breach of contract actions. The contract itself would also serve as somewhat of a deterrent, by putting member organizations and potential patent trolls on notice that bad behavior will not be tolerated.

In conclusion, the FTC’s settlement may not have been analyzed with due care and the FTC therefore may not have met all of the preconditions for UMC and UAP actions. These preconditions include: 1) an anticompetitive purpose with no other legitimate business reason for the conduct; and 2) consideration of the knowing nature of the conduct and the impact on the marketplace; and 3) whether or not the entities harmed had any alternatives. It is debatable whether N-Data acted in a knowing, intentional manner. Certainly, the dissent is not convinced the behavior was knowing and intentional. The original complaint did not mention any misconduct, and N-Data put forth possible

123 See Orkin Exterminating Co. v. Fed. Trade Comm’n, 849 F.2d 1354, 1364 (11th Cir. 1988) (stating that in order to support a finding of unfairness, the injury must “be substantial; it must not be outweighed by any countervailing benefits to consumers or competition that the practice produces; and it must be an injury that consumers themselves could not reasonably have avoided.”).
124 See Dissenting Statement of Chairman Majoras, supra note 121, at 4, 6.
legitimate business reasons for their actions. In my opinion, the FTC has not met its burden in this case. Finally, failure of the FTC to meet its burden and to provide a “meaningful limiting principle” has the potential to chill SSO activity because it leads to too much uncertainty as to what is and is not an acceptable practice.

C. Which FTC Power Will Create Efficient Incentives for Member Firms in SSOs?

The Sherman Act provides authority for government and private antitrust enforcement. The plaintiff in an antitrust action has the burden of showing that the defendant has market power in the relevant market and that it has acquired or maintained that power in an anticompetitive manner. In practice, there is no presumption of market power for patent holders, even though patent law by nature gives patent holders a limited monopoly.

An alternative means of enforcement is the FTC Act. Section 5 of the FTC Act, discussed in some detail above, declares “unfair methods of competition . . . unlawful.” After Dell, however, it is unclear what level of intent and market power must be shown when bringing an action under Section 5.

Since the goal of our national antitrust policy (and by extension our unfair competition policy) should be to maximize consumer welfare and economic efficiency, we must be sure that

126 There is currently debate over how broad Section 5 should be now that it appears Section 2 is losing some of its power. Recent court cases such as Verizon Commc’ns Inc. v. Law Offices of Curtis V. Trinko, LLP, 540 U.S. 398 (2004), Bell Atlantic Corp. v. Twombly, 127 S. Ct. 1995 (2007), and Leegin Creative Leather Prods., Inc. v. PSKS, Inc.,127 S. Ct. 2705 (2007) seem to have narrowed the ability of the Sherman Act to protect consumers. See Jon Leibowitz, Comm’r, Remarks at Section 5 Workshop: “Tales from the Crypt” Episodes ’08 and ’09: The Return of Section 5 at 4–5 (Oct. 17, 2008). This is still far from clear and part of the reason the FTC held its October workshop. Id. at 4. However, there seems to be a consensus that Section 5 should not be used except for in cases where consumers are actually harmed. Id. at 5. Mere moral outrage is not sufficient.
the powers that the FTC uses will incentivize actors in SSOs to perform those actions that will maximize consumer welfare and economic efficiency. Here, I apply this concept to one of the biggest potential problems with SSOs: RAND licensing terms. Assume there are two players in the market for equipment using a particular standard: the SSO (consisting of member manufacturers and high tech companies) and the average consumer who buys or may buy a product using a standard developed by the SSO. A social welfare function describing this situation will include the sum of the values to the individual SSO members plus the value to consumers minus the costs to both parties. We will want to maximize the values while minimizing the costs.

The value to the SSO as a whole depends on the pervasiveness of the standard which in turn depends on how technologically superior it is to any rivals. The pervasiveness of the standard also depends on to what degree superior patent holders can be persuaded to cooperate in the standard. The value that each member firm attains is related to the probability that his patent is used in the standard, the royalty rate he will get if his patent is used, and the pervasiveness of the standard. The costs to the SSO as a whole mainly consist of transaction costs involved in negotiating for patent rights and in developing the standard.

The probability that the patent holder’s patent is used in the standard is a function of whether he participates in the SSO and the necessity of his patent to the success of the standard. A patent holder will only participate if he is convinced that he will get at least as much out of participation as he would from non-participation. A patent holder would get more from participation than he contributed if he has an inferior patent, a purely substitute patent (one that is almost the same as another patent in the pool and could be used in place of that patent) or just one of many necessary patents. He would get relatively less from participation in the pool if he holds such a superior patent that he would be better off licensing it separately, even to the extent that he does not participate in the SSO at all and instead creates his own standard, or if his patent is purely complementary (there is no other substitute patent). See Giuseppe Colangelo, Avoiding the Tragedy of the Anticommons: Collective Rights Organizations, Patent Pools and the Role of Antitrust 30 n. 79, 58–59 (LE Lab, Working Paper No. IP-01-2004).
blocking, in which case it will be of high value to the pool. We would want to encourage higher-value patents such as complementary or blocking patents to be in the pool, and we want to discourage lesser rival patents from being included in the pool and thereby raising costs to standards users and consumers alike.

The consumer will see a benefit from having new technology available to him, times the probability that the patent holders contribute their technology. The consumer will see a mirror image loss pertaining to valuable patents not included in the pool due to anticommons issues. The consumer sees no gain due to the SSO’s increased transaction costs, so there would be no offset from the consumer’s standpoint against these losses. Finally, a consumer sees a loss due to excessive costs.

If the goal of FTC enforcement is to enhance social welfare, it is easy to see that the overarching goal of any FTC enforcement should be to encourage technologically superior SSO members to participate in an SSO. A second goal should be to ensure that costs to the consumer are not excessive and to help SSOs minimize transaction costs. For SSO members who contribute a larger

\footnote{A complementary patent is required for the best use of another patent in the pool. A blocking patent is required to make the standard work at all. A competing patent does not add anything to the value of the patent pool. Further, including such a patent may cause anticompetitive effects by taking a competitor out of the marketplace. It will contribute to excessive consumer costs by including worthless patents in the royalty rate of the patent pool. See id. at 31, 57. These anticompetitive effects are beyond the scope of this paper and are discussed at length in Colangelo’s article. In this paper, I only discuss how to encourage the high-value patent holders to participate.}

\footnote{This is also an anticommons problem, since multiple rights to exclude exist. In an anticommons, multiple owners can each exclude others from a scarce resource. When there are too many owners holding a right to exclusion, underuse of the resource can result. This can result in underuse of available patent technologies and chilling of standards-setting organizations. Michael A. Heller, The Tragedy of the Anticommons: Property in the Transition From Marx to Markets, 111 HARV. L. REV. 621, 624 (1998).}

\footnote{Excessive costs are costs that would not have been seen by the consumer if the SSO were obtaining patents at the best possible price, probably via patent pool. These costs will also depend on the presence of competing patents in the pool, which do not add value to the patent pool, and result in higher royalty rates. See generally Colangelo, supra note 133, at 30–32 (“[P]ools that include competing or rival patents rather eliminate competition and can lead to higher prices through collusive price fixing.”).}

\footnote{While it is always possible and even likely that other members will have competing technologies and competing patents that can be used for the same or similar purposes in the standard, we want the superior patent or technology to be used to optimize the consumer’s welfare.}
value to the consumer welfare and who have more of a positive effect on the pervasiveness of the standard, we want to ensure that the probability that they contribute to the standard is as close to 100% as possible. At the same time, we want to discourage the lower-value SSO members from adding their patents to the patent pool.

In order to avoid an anticommons problem in an SSO we need to overcome transaction costs and rent-seeking\textsuperscript{138} by patent holders.\textsuperscript{139} For the most part, the transaction costs involved in SSOs are due to informational costs.\textsuperscript{140} There are substantial information costs involved in both antitrust and UMC methods of enforcement.\textsuperscript{141} However, information costs are higher when the FTC uses its unfair competition powers unless a meaningful limiting principle is applied.\textsuperscript{142} If the legal rules are not clear-cut, as they do not appear to be with unfair competition enforcement, then legal counsel is necessary to determine if a certain behavior is a violation of unfair competition law as well. Antitrust en-

\textsuperscript{138} Rent-seeking will occur when a member firm with competing patents seeks to make money by getting its less valuable patents included in the patent pool. See Branko Radulovic, \textit{Reassessing the Costs of Patents}, 173, http://www.ius.bg.ac.yu/Naucni/Razvoj\%20pravnog\%20sistema\%202006/15\%20-%20Projekat\%202006-9.pdf (last visited Apr. 15, 2009). Rent-seeking in the SSO context adds nothing to social welfare and wastes resources that could be better used elsewhere. I am unsure whether rent-seeking activities could be deterred by anything the FTC does or does not do.

\textsuperscript{139} Colangelo, supra note 133, at 16.


\textsuperscript{141} See generally \textit{Competition and Intellectual Property Law and Policy in the Knowledge-Based Economy: Hearing on Standard Setting and Market Power Before the US Dep't of Justice and the Fed. Trade Comm'n}, 6, 8 (2002) (statement by Richard T. Rapp & Lauren J. Stroh, NERA), available at http://www.ftc.gov/opp/intellect/020418rappstiroh.pdf (explaining that costs of compliance are made up of “transaction costs and the risk of diminishing the property right” and that enforcement depends on “the specific characteristics of the industry and the technology.”).

enforcement would require a showing of market power before a patent holder could be held liable for an antitrust violation. Information costs involved in avoiding this, however, should not be high and may even be negligible. First, the FTC will already have oversight over the patent pool via advisory opinions discussed below. Second, SSO member organizations can take into account the findings in *Rambus*, *Illinois Tool Works*, and *Dell* to avoid antitrust issues in the future.

Given the importance of reducing transaction costs, offset against the benefit attained when technologically superior patent holders are encouraged to participate in SSOs, it becomes clear that the optimal agency enforcement should err on the side of creating certainty and eliminating uncertainty. For this reason, when the FTC steps in at all, it should be with well-defined antitrust powers and not murky, ill-defined unfair competition powers.

**D. Offer Guidance on RAND Terms Through Approval of Patent Pools**

Most SSO policies require a patent owner to agree to license his patent under RAND.\(^{143}\) Accused infringers often try to use this agreement in an attempt to limit the amount of royalties charged by equating “fair and reasonable” with “nominal.” Patent holders, on the other hand, point out that, according to the Patent Act, damages for infringement may not fall below a “reasonable royalty,” often arrived at using the *Georgia-Pacific* factors.\(^{144}\) In addition, differences in royalty rates may be justified based on the size of the licensee, current market conditions, any

\(^{143}\) Cowie & Lavelle, *supra* note 28, at 140.

\(^{144}\) See *Georgia-Pacific Corp. v. U.S. Plywood Corp.*, 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970), *modified on other grounds*, 446 F.2d 295 (2d Cir. 1971). Here, I paraphrase the factors: 1) royalties patentee has previously received for this patent; 2) rates paid for use of other comparable patents; 3) whether the patent is exclusive or non-exclusive; 4) whether the patent holder licenses to anybody else; 5) commercial relationship between patent holder and licensee; 6) value of patent as generator of sales; 7) the duration of the patent and the term of the license; 8) success of product made under the patent; 9) advantage of the patent over prior art; 10) the nature of the patented invention; 11) how much the licensee has used the patent; 12) the portion of the profit or of the selling price that may be customary in the particular business or in comparable businesses to allow for the use of the invention or analogous inventions; 13) how much of the profit realized by the licensee was due to the patent; 14) the opinion testimony of qualified experts; and 15) the amount the parties would have agreed upon as reasonable were it not for the current suit. *Id.*
current infringement litigation, and other factors. Finally, patent holders can argue that the differences in rates do not amount to discrimination as long as common criteria are used.

Most SSOs offer very little guidance as to what “reasonable” and “nondiscriminatory” means. In general, “the licensing commitment is intended to preclude ‘monopolistic abuse’ of the standard.” Some SSOs “requir[e] that proposed . . . licenses be submitted to the SSO for approval . . . .” For the most part, however, “reasonable” and “nondiscriminatory” has been left to the courts. Unfortunately, when the Federal Circuit applies the Georgia-Pacific test, it will often overcompensate the patent holder since the infringement occurs after the standard has been adopted and has led to some commercial success. The patent holder may have some market power at this point, and his patent may be completely necessary to practice the standard, so holdup is a real issue. However, the Federal Circuit could and sometimes does weigh the other factors to come up with more reasonable royalty rates. For instance, large firms with numerous patents probably have an established royalty rate that they have used for this or similar patents, so this could lead the court to come up with a more reasonable royalty rate. In addition, factor fifteen (concerning what the parties would have agreed upon as reasonable) can be seen to refer to pre-standard adoption, so that market power of the patent holder is not taken into account.

Despite confusion over what RAND means, there are some points of agreement. Most scholars agree that “nondiscriminatory” means that patent holders must license similarly situated adopters on the same terms. Most importantly, patent holders who compete downstream with other standards adopters are supposed to treat those adopters no less favorably than it treats itself. In addition, “reasonable” should be measured in relation

\[145\text{ Cowie & Lavelle, supra note 28, at 150.} \\
\[146\text{ Id. at 141.} \\
\[147\text{ Id.} \\
\[148\text{ Id. at 147–48.} \\
\[149\text{ See Georgia-Pacific Corp., 318 F. Supp. at 1120.} \\
\[150\text{ See Cowie & Lavelle, supra note 28, at 148.} \\
\[151\text{ See Lemley, supra note 7, at 1913–14.} \\
\[152\text{ Though this is commonly what RAND requires, it is very uncommon in practice. See Daniel G. Swanson & William J. Baumol, Reasonable and Nondiscriminatory (RAND) Royalties, Standards Selection, and Control of Market Power, 73 ANTITRUST L.J. 1, 27–29 (2005).} \]
to before standard adoption, not what the patent holder could get after lock-in.\textsuperscript{153} In the end, the goal is to make the computation of royalty rates as simple as possible while also providing enough of a structure that it is not simply left up to the patent holder’s discretion. To do otherwise will result in lawsuits over the reasonableness of the royalty.

Currently, in many SSOs, royalty rates are determined after the standard has been adopted. However, at this point, the SSO may have conferred market power on a patent owner, especially when a given patent is necessary for all participants adhering to the standard. The current system, in effect, results in uneven bargaining. Some think the FTC could remedy this with guidelines on royalty rates. Others think the current system is adequate and can be dealt with by the courts, through contract law or patent law, when there are any problems. In the paragraphs that follow, I weigh and criticize these views.

Some commentators think that the goals of antitrust enforcement would be best served by allowing SSOs to fix royalty terms ex ante.\textsuperscript{154} As it stands now, SSOs make their patent policies vague to avoid antitrust liability,\textsuperscript{155} which in turn can result in litigation over the precise licensing obligations of the patent holder and in patent hold-ups due to the power of the patent holders after standards adoption. The biggest reason given for allowing SSOs to fix royalty terms is that SSO participation would rise because potential members would be less concerned about potential antitrust liability.\textsuperscript{156} I do not find this entirely persuasive. When deciding to join an SSO, members are more concerned with what they can get out of the SSO and with selling their products using a technologically superior standard. Antitrust liability is the farthest item from their minds.\textsuperscript{157} A better reason for ex ante setting of royalty rates is to avoid litigation and hold-ups. Another good reason is that ex ante setting of royalty rates would be the most fair because no one knows if their patent will be part of the standard ahead of time, and therefore, will be more willing to set a fair rate ex ante.

However, even if it were legally possible to set licensing fees ex

\begin{itemize}
\item \textsuperscript{153} See Shapiro, supra note 30, at 95.
\item \textsuperscript{154} See Curran, supra note 17, at 1008.
\item \textsuperscript{155} See supra Part II.B.
\item \textsuperscript{156} See Curran, supra note 17, at 1008.
\item \textsuperscript{157} See Jakobsen, supra note 40, at 51.
\end{itemize}
ante, it may not be technically possible. There are significant data gaps that would render detailed ex ante licensing fee negotiations difficult at best. It is impossible to know who owns the essential patents for a standard that has not been set yet. There may be several essential patents in the standard spread out over several members, or there may be one essential patent. Further, no one knows what the market for the standardized products will be, how much products will sell for, and how much demand for a network standardized product will change with time and as patent monopolies run out. The only possible ex ante licensing may very well be the mere promise to license on RAND terms, as measured before standard adoption, or a patent pool.

Consider whether RAND really needs to be specified down to the last detail, or even at all. Is it enough merely that there is a promise of RAND? I find Professor Joseph Scott Miller’s argument on this point intriguing. An SSO policy could state that when determining a reasonable royalty, only the ex ante technological value of a given patent is used. This alone could reduce uncertainty without getting into specifics and running the risk of being seen as price fixing. In addition, transaction costs would be low because negotiations could remain at a minimum. Finally, patent holders would not have to fear having patent rights taken away entirely. The worst that can happen, from their perspective, is that they do not gain a greater royalty rate from the adoption of the standard, which they were never really entitled to anyway.

Professor Lemley says RAND causes a patent holder to waive his injunction right so that adopters are guaranteed long-term access rights. He concludes that an implied license is the best way to force patent holders to give up their rights when there is a

158 See Miller, supra note 12, at 369.
159 See id. at 370.
160 See id. at 357 (stating that a common criticism that the RAND promise is too vague and underspecified should be rejected).
161 Id. at 358. This value equals the value the patent held before existence of the standard. It is fairer to use this value because it does not reward the patent holder for having his patent involved in the standard. Since it is calculated before adoption of the standard, patent holders have less of an incentive to use trickery to get their patent included in the standard. The value could be determined by analyzing the Georgia-Pacific factors.
162 See id. at 367.
163 See id. at 369.
164 See Miller, supra note 12, at 390.
165 See Lemley, supra note 7, at 1902.
dispute over failure to license. He may be right that SSOs can enhance their IP policies by elaborating on the full meaning of RAND. However, there is some issue as to how vague the RAND promise can be before it “loses much of its meaning.” As long as RAND means a waiver of a right to injunction and royalty rates that the patent holder would have gotten prior to standards adoption, the RAND promise can hold sufficient meaning without spelling out what the royalty rates should be or spelling out everything in detail. The RAND promise is the promise to forego injunctive relief if a patent is infringed. This promise resolves the tension between a patent holder’s bargaining power and long-term access to the patents in a standard. The promise itself is what obligates patent holders to license on RAND terms. Adopters of the standard are guaranteed to be paying only reasonable royalties, and the courts can determine reasonable royalties based on the Georgia-Pacific factors in cases of dispute. Patent holders, in turn, are or should be willing to adopt RAND in this sense since they do not know, ex ante, who will hold the essential patents, and RAND guarantees they will at least not be harmed by other members.

I believe that all of these benefits can also be attained by creating patent pools within the SSO, with antitrust oversight by the FTC in the form of advisory opinions. This is more than Professor Miller suggests, but less than Professor Lemley wanted. Prof. Lemley wanted more definition of RAND, but Prof. Miller has an excellent point that this is not entirely necessary. Prof. Miller says the RAND promise locks in adopters’ access, much like a patent pool, by giving adopters an irrevocable right

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166 See id. at 1924–25.
167 Id. at 1964 (citations omitted).
168 Id. at 1916. See Miller, supra note 12, at 358.
169 Miller, supra note 12, at 374.
170 See id.
173 The FTC has authority to give advisory opinions under 16 C.F.R. § 1.1 (1989). This advice would be available to SSOs because it is with respect to a course of action which the SSO proposes to pursue, and is not subject to limitations for being purely hypothetical. It also would not require extensive investigation on the part of the FTC.
to use the patented technology in return for RAND royalties.  

The RAND promise, according to Prof. Miller, “is a far less elaborate, formalized structure than a patent pool[,]” but “it is functionally equivalent[,]” Prof. Miller thinks patent holders will not want to assign patents to the patent pool and therefore there will be a chilling effect on SSOs. However, if patent holders know their rights are protected and know they will attain more sales by standards adoption that is made easier by the presence of patent pools, I think that this should not be a significant issue. I think a more formalized approach in the form of patent pools with FTC oversight would be optimal.

A more formalized approach could help guarantee that future purchasers of essential patents (as in the current N-Data case) will follow the agreements of the patent pool. Lawsuits will be minimized in this instance if the agreement is spelled out more formally and has met with the FTC stamp of approval. In addition, for larger SSOs with more varied members, more elaborate contractual safeguards may be necessary, and patent pools could help fulfill this role better than a mere RAND “promise.”

V. CONCLUSION

Standards benefit consumers in a number of ways. Because of this, the FTC should be careful that its actions do not chill participation in standards-setting organizations. The FTC should choose enforcement mechanisms that will incentivize SSO members to act in a socially optimal manner. The FTC should get involved only when other mechanisms cannot adequately protect consumers. The FTC can use either its antitrust powers or unfair competition powers, but in most instances, if the FTC needs to step in at all, use of antitrust powers is preferred. The antitrust powers are not as controversial and in most instances, antitrust adequately protect consumers. When the FTC does use its UMC powers, it needs to take great care to ensure conduct is actually anticompetitive. It also needs to make sure there is actual consumer injury. In the cases studied in this paper, it is not

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174 Miller, supra note 12, at 389.
175 Id.
176 Prof. Miller thinks that since the patent technology may have yet unknown uses outside the patent pool, outright assignment of the patent to a patent pool is too much to ask of the patent holder and would needlessly preclude him from exploiting the patented technology outside of the SSO. See id. at 390.
clear that it did so. Adding uncertainty to the standards-setting process will lead to less participation in SSOs by the most desirable high-value patent holders. This, in turn, reduces consumer welfare by making it more difficult for technologically-superior standards to be adopted.

There is potential for two types of problems in SSOs: nondisclosure of patents and failure to license on RAND terms. The former can usually be dealt with using contract law. The latter can be dealt with using contract law and patent pools overseen by the FTC. In the case against Dell, the problem with nondisclosure of patents could have been prevented through contract law, wherein the contract specified that all member organizations needed a patent attorney to sign off on the existence and identity of any patents bearing on the standard. Contract law would work here because the parties to the contract would be the member organizations, and they would be motivated to make sure the contract protected them from nondisclosures and patent holdup problems. Critics might say contract law would not adequately protect consumers. However, if the member organizations were to be protected, the bad effects of patent nondisclosure would not trickle down to consumers. Furthermore, member organizations are likely to be well-heeled manufacturers with the resources to bring contract actions. In the end, I believe there would be fewer and fewer breaches of contract for patent nondisclosure, as SSOs started to create better contracts and parties agreed to them before standards were adopted.

The same thing occurred in Rambus, in which patent disclosure policies should have been clarified by the SSOs and in which contract law would have been a better recourse. The patent disclosure policy itself was very unclear, and the SSO could have clarified the policy and then required a patent attorney to sign off on the identity and number of patents bearing on the standard.

Regarding RAND, SSOs should set up patent pools, with antitrust oversight by the FTC. Patent pools should be set up based upon the ex ante technological value of any patents used in the standard. Patent pools will fulfill the needs of patent holders because they know ex ante that they will receive compensation for valuable patents and because it relieves any uncertainty before the development of the standard. Patent pools also fulfill the needs of standards adopters since they are guaranteed to pay on-
ly reasonable royalties and are protected from patent hold-ups. The patent pools can be approved by the FTC through advisory opinions. This has the extra benefit of relieving SSOs of any worries about antitrust liability.

Even when the FTC should get involved, it is controversial whether it should use its antitrust or unfair competition powers. There are substantial policy arguments for not using UMC powers to reach conduct that does not violate antitrust laws. Among other things, use of UMC powers has the effect of creating different substantive rules depending on whether that particular industry is subject to oversight by the FTC or the DOJ. It is my opinion that antitrust powers suffice in most cases. Unfair competition powers should only be used when antitrust violations are not present and there is evidence of anticompetitive intent with no legitimate business reason for the conduct in question. The FTC needs to spell out these two issues in any complaint, with sufficient proof to support its position. While the FTC is within its rights to bring a UMC action when it thinks behavior will harm consumers, it first needs to make sure real consumers are harmed. When it does step in with its already-controversial UMC powers, it needs to provide a meaningful limiting principle to guide SSO activity and to lend more certainty to the standards-setting process.

Governmental guidance can enhance the SSO participation process and encourage the adoption of best practices that will benefit SSO participants and the public. However, the FTC must take care to not over-regulate and cause chilling of participation by vital member firms. Since the goal of our national antitrust policy (and by extension our unfair competition policy) should be to maximize consumer welfare and economic efficiency, we must be sure that the powers used in each type of case would incentivize actors in SSOs to perform those actions that will maximize consumer welfare and economic efficiency.

\[177\] Robertson, supra note 131, at 746.