EX ANTE LICENSING IN STANDARDS DEVELOPMENT

MYTHS AND REALITY

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I. Introduction

Once again, a hotly debated issue in connection with standards development activities concerns how intellectual property rights ("IPR"), and especially patented technology, should be treated in connection with the development of technical standards. This is not a new debate. Since at least the mid-1980s the competitive implications of using patented technology in standards have been the subject of intense discussion and consideration in the standards community, including from the perspective of standards developers, owners of significant patented technology, and users of standards.

Then Chairman of the Federal Trade Commission, Timothy Muris, in announcing the joint FTC/DOJ hearings on "Competition and Intellectual Property Law and Policy in the Knowledge-Based Economy" in the fall of 2001, commented on the "difficult competition issues" that can arise when intellectual property is involved in standards development.[1] This is most true today in connection with communications and information technology markets, where the scope and extent of standardization activity is growing, the technology involved is increasingly complex, and the nature of competition is often difficult to comprehend.

Given these circumstances, the specific issue that is creating a lot of dialogue has come to be called the "ex ante" issue. Although no clear cut position has been put forward that would define what "ex ante" proponents would have changed in standards development, at a basic level what is being proposed is that IPR owners should be required to disclose in advance of a standard being final – *i.e.*, "ex ante" – not only their patents and other IPR that might be infringed by adoption of a standard, but also specific license terms pursuant to which such IPR would be made available. Some have asserted that such licensing declarations should be binding and irrevocable even if a draft standard changes, or if the claims in a patent application are amended during prosecution. Others have proposed that license terms should be determined "ex ante" by the collective decision of participants in standards development organizations (SDOs), and that mandatory royalty caps should be imposed based upon such joint determinations.

The rationale offered in support of these positions includes (i) sufficient information regarding the relative costs of alternative technologies being considered in standards development is otherwise available, (ii) implementers cannot otherwise obtain access to sufficient information to determine the cost of implementing a standard, and (iii) IPR owners will otherwise acquire market power they should not achieve and engage in patent "ambushes," "hold ups" or in "royalty stacking." Moreover, it is argued, because the joint conduct proposed should not be judged for antitrust purposes under a *per se* rule of liability, the benefits that will be realized outweigh the anticompetitive risks from the type of collusive conduct that is proposed.

The "ex ante" proposals, and the justifications offered in support of them, although perhaps superficially attractive, could raise significant legal concerns and inhibit the efficient development of standards, all while seeking to address issues that are not common or prevalent. This may be because the "ex ante" proposals are premised on a limited consideration of the

[1] Remarks of Timothy J. Muris, *Competition and Intellectual Property Policy: The Way Ahead*, before the American Bar Association Antitrust Section Fall Forum, November 15, 2001.

myriad competitive and other factors involved in standardization, or because those pressing for "ex ante" solutions are doing so from a perspective of their own competitive strategic positions and seeking to further those. For example:

- The proposals reflect an inherently antagonistic view of IPR rights, and improperly ascribe opportunistic and abusive motives to IPR owners in the standards development context. This presumption is misplaced, and fails to take into account settled legal principals establishing the procompetitive advantages of including patented technology in standards and encouraging the development of new and innovative inventions that can be widely adopted through standardized solutions.

- While the "ex ante" proposals are justified as necessary to address potentially anticompetitive conduct, the feared conduct is not common or typical in standards development. While there have been a handful of well-publicized charges of patent "ambush" or "hold up," and a select number of situations where the potential for "royalty stacking" have been identified, these instances are *de minimis* in relation to the overall extent of standards development, and in relation to the volume of standards work that is proceeding involving technology industries where patented technology is involved. The dearth of real "hold up" or "royalty stacking" problems may be because the balance of interests that is accommodated by the existing standards development processes, the existing procedures followed by standards developers that actually accommodate the "ex ante" disclosure of IPR, the bilateral (rather than collective) negotiation of license terms, and the inherent nature of the marketplace militate against "hold up" or "royalty stacking" without the imposition of mandatory rules and the required collective determination of license terms. Moreover, when such conduct has been addressed by the courts or in administrative proceedings, the claims of unlawful conduct have been rejected.

- Even if collective "ex ante" conduct is considered under a rule of reason analysis for antitrust purpose, the risks and costs of antitrust liability, or at least the potential for investigations or litigation concerning such conduct, are not eliminated, and in fact may be enhanced. Moreover, the "ex ante" proposals may eliminate fundamental procompetitive attributes of standards development, increase the risk of unlawful collusive abuse, and expose participants in the standards development process to greater uncertainty and costs as the result of their involvement in standards development activities.

In short, the "ex ante" proposals being marketed by a handful of firms must be considered carefully in the full context of standards development, which involves a multitude of intertwined relationships and factors, all of which are made even more complex by the nature of technology and the current state of competition. Otherwise, what may sound like a good idea in the first instance could, if adopted, have enormous negative consequences that would be anticompetitive themselves, and undermine the fundamental procompetitive nature of standards development.

This would all result when it is in no way clear that the "ex ante" steps under discussion are necessary at all to address the perceived problems they supposedly would address.

II. Including IPR In Standards Promotes Competition And Consumer Welfare

It is well-settled that intellectual property laws, like the antitrust laws, seek to promote competition and consumer welfare. This common purpose was explained by then Assistant Attorney General for Antitrust, R. Hewitt Pate, in his comments *Competition and Intellectual Property in the U.S.: Licensing Freedom and the Limits of Antitrust*:[2]

> Sound antitrust enforcement condemns anticompetitive conduct. It does not attempt to regulate the amount of competition in a general sense or address vague questions of fairness. It does not attempt to create an affirmative incentive for procompetitive conduct, by promising any specific reward or legal recognition for competitors who play by the rules. It focuses on specific anticompetitive actions, as judged by their effect on the markets and consumer welfare. Although this narrow focus is a limitation, at the same time it is a great strength – it makes possible objectivity, predictability, and transparency.
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> Intellectual property laws, by contrast, provide a complex system of affirmative rewards for an important type of procompetitive behavior – innovation. They take consumer welfare into account, but in different ways than does antitrust. First, they reward innovators with exclusive rights that serve as an incentive to bring new and improved goods and services to market. The hope is that such innovations will lead to increased competition and increased consumer welfare in the long term. Second, they strike a balance between these rights and certain types of public access, such as fair use under copyright law or the disclosure requirement and the limited term of patents. They also include a fail-safe procedure under which a rival or a customer can sue to declare an intellectual property right noninfringed or unenforceable for a number of reasons.[3]

Thus, it is consistent with the purposes of the antitrust and patent laws for a patent owner to fully assert its rights, including the right to exclude others from using or having access to the patented invention. "What IP rights provide is the right to exclude others. The right to exclude is not simply *one* of the rights provided by intellectual property, it is the *fundamental* right, the foundation upon which the entire IP system is built."[4]

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[2] Presented to the 2005 EU Competition Workshop, Florence, Italy (June 3, 2005) ("Pate Remarks").

[3] *Id.* at 2-3 (citations omitted). *See also* Federal Trade Commission Report, *To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy*, Exec. Summary at 2 (Oct. 2003).

[4] *Id.* at 3 (emphasis in original).

Accordingly, a patent owner is not obligated to make its proprietary technology available. As the Supreme Court has stated, "[a] patent owner is not in the position of quasi-trustee for the public or under any obligation to see that the public acquires the free right to use the invention. He has no obligation either to use it or to grant its use to others."[5] This is the case, even if the patent owner possesses market power in an antitrust sense.[6] Moreover, "[b]ecause a license to the essential patent is, by definition, a prerequisite to practice the technology in question, the patentee can charge whatever maximum amount a willing licensee is able to pay to practice the technology in question."[7]

Thus, while "[i]ntellectual property rights do not confer a privilege to violate the antitrust laws,"[8] "conduct permissible under the patent laws cannot trigger any liability under the antitrust laws."[9] "The patent laws . . . are in *pari material* with the antitrust laws and modify them *pro tanto*."[10]

Including patented technology in standards, therefore, is entirely consistent with the purposes of both the antitrust and intellectual property laws. It achieves the procompetitive result of allowing innovative solutions to gain far greater implementation than they might otherwise achieve, and affords users of technology far greater information about such innovative developments than they would otherwise be able to obtain. A patent owner's assertion of its rights under the patent laws, therefore, should be considered procompetitive, and not, absent actual predatory conduct, opportunistic or anticompetitive. This is because assertion of rights afforded by the Patent Act permits a patent owner to recoup its investment required for creating novel technology and to have the incentive to continue developing next generation technical solutions.

Yet, consistent with the patent laws and their procompetitive purposes, a patent owner is under no obligation to share its innovations with others, whether in the standards context or otherwise. As a result, the standards process must support incentives for a patent owner to do so, and avoid imposing disincentives that threaten a patent owner's ability to control its inventions and recoup the investments that were required to develop the existing technology and make

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[5] *Hartford-Empire Co. v. United States*, 323 U.S. 386, 432 (1945).

[6] *Integraph Corp. v. Intel Corp.*, 195 F.3d 1346, 1362 (Fed. Cir. 1999) (even the possession of market power "'does not impose on a patent owner an obligation to license on specific terms – or to license at all'"), *quoting*, DOJ/FTC *Antitrust Guidelines for the Licensing of Intellectual Property*, at § 2.2. *See also Verizon Communications Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398, 407 (2004) ("The opportunity to charge monopoly prices – at least for a short period – is what attracts 'business acumen' in the first place; it induces risk taking that produces innovation and economic growth. To safeguard the incentive to innovate, the possession of monopoly power will not be found unlawful unless it is accompanied by an element of anticompetitive *conduct*) (emphasis in original).

[7] *U.S. Philips Corp. v. Int'l Trade Comm'n*, 424 F.3d 1179, 1191-92 (Fed. Cir. 2005).

[8] *In re Indep. Serv. Orgs. Antitrust Litig.*, 203 F.3d 1322, 1325 (Fed. Cir. 2000).

[9] *SCM Corp. v. Xerox Corp.*, 645 F.2d 1195, 1206 (2d Cir. 1981).

[10] *Simpson v. Union Oil of Cal.*, 377 U.S. 13, 24 (1964).

future investments in new technologies.[11] Stated differently, establishing an environment that encourages and advances the licensing of patented technology for inclusion in standards, without imposing undue or misdirected mandatory rules and obligations, is a desirable and very important role for the standards community.

Legal authority establishes that such an approach to standards development furthers the procompetitive purposes underlying the antitrust and patent laws, and no negative inference should be drawn from a patent owner's attempt to obtain license terms that it deems appropriate. To the contrary, "[b]ecause patent owners hold a lawful monopoly over the patented technology, the starting presumption must be that the licensing of that patent right is an activity that aids rather than impedes competition."[12] Such licensing activity permits the effective integration of complementary technologies, facilitates the introduction of new products and technological implementations, and enhances competition among implementers of the standardized solutions that otherwise might not have access to the patented solutions. The Department of Justice and Federal Trade Commission *Antitrust Guidelines for Licensing of Intellectual Property* are instructive:

> [I]ntellectual property licensing allows firms to combine complementary factors of production and is generally pro-competitive. . . . Licensing, cross-licensing, or otherwise transferring intellectual property . . . can facilitate integration of the licensed property with complementary factors of production. This integration can lead to more efficient exploitation of the intellectual property, benefiting consumers through the reduction of costs and the introduction of new products. Such arrangements increase the value of intellectual property to consumers and to the developers of the technology. By potentially increasing the expected returns from intellectual property, licensing also can increase the incentive for its creation and this promotes greater investment in research and development.[13]

The benefits of including patented technology in standards has also long been recognized by the Federal Trade Commission. For example, in *American Society of Sanitary Engineers,*[14]

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[11] David J. Teece & Edward F. Sherry, *Standards Setting and Antitrust*, 87 Minn. L. Rev. 1913, 1944 (June 2003) ("IP holders must believe that their interests will be protected in the standards-setting process, or they may choose not to participate."); *see also* James C. DeVellis, *Patenting Industry Standards: Balancing the Rights of Patent Holders With The Need For Industry-Wide Standards*," 31 AIPLA Q.J. 301, 344 (Summer 2003) ("it is likely that if companies perceive that participation in the standard-setting process threatens patent portfolios, there will be a significant reluctance to participate in the process"); AIPLA Comments to the Federal Trade Commission (April 2002), *available* at www.ftc.gov/opp/global/aipla.htm ("industry participation will be encouraged only if the members are relatively free to establish their own terms and conditions for participation").

[12] *Applera Corp. v. MJ Research Inc.*, 2004 WL 2935820, at * 10 (D. Conn. Dec. 16, 2004), *citing* XII H. Hovenkamp, *Antitrust Law*, ¶ 2041 (1999), at 218.

[13] *Antitrust Guidelines for the Licensing of Intellectual Property*, U.S. Dept. of Justice and the Federal Trade Commission (April 6, 1995), at 5.

the FTC challenged an SDO rule that prohibited the standardization of patented inventions. As alleged by the FTC, precluding the inclusion of patented technology in standards, and eliminating the effective ability to broadly license such technology, had anticompetitive consequences because innovative products might be excluded from the market, users might be mislead to believe that non-proprietary alternatives are satisfactory substitutes, and users would be deprived of information concerning the superior patented technologies.[15]

For these reasons, what may be the primary underlying assumption of the current "ex ante" proposals – that patent owners presumptively will act in an anticompetitive manner – cannot be squared with applicable precedent and authority. To the contrary, conduct that may be accused as anticompetitive may, under the law, instead be procompetitive and worthy of support.[16]

III. SDO Procedures Further The Procompetitive Use Of Patented Technology

It is also important to consider the "ex ante" positions in the context of how standards development actually occurs.[17] One reason that actual "ex ante" problems may not be common is that existing SDO procedures, and the inherent incentives fostered by those procedures for patent owners and prospective licensees to avoid "hold up" and "royalty stacking," already accommodate a large measure of "ex ante" conduct.

At the Joint FTC/DOJ Hearings on Competition and Intellectual Property Law and Policy in the Knowledge-Based Economy, Richard Holleman, a former IBM executive with extensive experience in standards development activities, explained:

> I believe there is a misperception of how potential license terms are discussed. First, more often than not, patent owners provide statements that if they have patents that are essential to implementation of the standard being developed they will license such patents on reasonable nondiscriminatory terms. Then, outside the activities of the SDO, individual standards participants are able to approach the patent holder to inquire of available licensing terms. The patent

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[14] 3 Trade Reg. Rep. (CCH) ¶ 22,185 (FTC Consent Decree 1985).

[15] *Id.*

[16] The Supreme Court's recent decision in *Illinois Tool Works Inc. v. Independent Ink, Inc.*, No. 04-1329, 2006 WL 468729 (Sup. Ct. of the United States March 1, 2006), further suggests that any anticompetitive presumption in connection with a patent owner's assertion of its patent rights would be inappropriate, whether in the standards context or otherwise. In *Illinois Tool* the Court rejected such a presumption in the antitrust tying context.

[17] The "ex ante" proposals under discussion have most relevance to activities in traditional SDOs, such as ANSI accredited SDOs, the ITU and ETSI. Consortia, Special Interest Groups (SIGs) and Promoter Groups typically have less open procedures, more limited missions and more restrictive memberships. Accordingly, these organizations typically address IPR issues through express governance or membership agreements or policies, which eliminate the basis for the type of concerns offered as justification for the "ex ante" proposals now being proposed. For purposes of this paper, the focus is on the traditional SDO community.

> holder is also free to publicly state what its license terms will be. To the extent the patent holder does not make such a statement, or declines to engage in discussions with individual standards participants, it is always the discretion of the standards participant to not support the patent holder's technology or to propose an alternate technology to the standards developing committee. Ultimately, a consensus will establish what technology to support.[18]

Thus, as explained by Mr. Holleman, far from having an incentive to engage in abusive conduct, whether in the form of patent "hold up" or otherwise, the common approach is to the contrary. It is to pursue disclosure and licensing opportunities well in advance of the time a standard is final – *i.e.*, "ex ante."

The policies and guidelines of the major SDOs support such a conclusion. For example, consistent with ANSI's Patent Policy and its *Guidelines for Implementation of the ANSI Patent Policy*, the disclosure of patents and bilateral license negotiations are encouraged early in the standards development process. Such negotiations, as explained by Mr. Holleman, are encouraged between patent owners and potential licensees outside the activities of SDOs, and with only very isolated exception, no limitations are imposed on patent owners from unilaterally announcing the license terms they will require at a particular point in the standards development process.

The ANSI *Guidelines*, thus, expressly "seek to encourage the early disclosure and identification of patents that may relate to standards under development, so as to thereby promote greater efficiency in standards development practices."[19] The *Guidelines* further explain:

> Experience has indicated that early disclosure of patents is likely to enhance the efficiency of the process used to finalize and approve standards. Early disclosure permits notice of the patent to the standards developer and ANSI in a timely manner, provides participants the greatest opportunity to evaluate the propriety of standardizing the patented technology, and allows patent holders and prospective licensees ample time to negotiate the terms and conditions of licenses outside the standards development process itself.
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> The early identification of relevant patents should also increase the likelihood of an early indication from the patent holder that it is willing to license its invention, that it is prepared to do so on

[18] Submission of Richard J. Holleman, *Comments on Standards Setting and Intellectual Property*, FTC/DOJ Hearing on Competition and Intellectual Property Law and Policy in the Knowledge-Based Economy (April 10, 2002) at 2.

[19] ANSI *Guidelines* at 1.

> reasonable terms and conditions demonstrably free of unfair discrimination, or that the patent in question is not required for compliance with the proposed standard. A patent holder may have a strong incentive to provide an early assurance that the terms and conditions of the license will be reasonable and demonstrably free of unfair discrimination because of its inherent interest in avoiding any objection to the standardization of its proprietary technology. As a consequence, patent holders and prospective licensees would be provided greater opportunities to negotiate acceptable license terms.[20]

The ITU-T Patent Policy is similar. Section 1 states that "any ITU-T member organization putting forward a standardization proposal should, *from the outset*, draw the attention of the Director of the [Telecommunication Standardization Bureau (TSB)] to any known patent or to any known pending patent application, either their own or of other organizations, although the TSB is unable to verify the validity of any such information."[21] The term "*from the outset*" "implies that such information should be disclosed as soon as possible, *i.e.*, as soon as it is becoming clear that an evolving draft Recommendation will, in fact, fully or partly include elements protected by patent rights."[22]

The concept of "*from the outset"* as used in the ITU-T context is an important one. It takes into account the reality that standards development is a dynamic process, and that it may be impossible for a patent owner to identify with any degree of certainty a patent or patent claim that is in fact essential to the implementation of a standard until that standard has reached a point of sufficient maturity where it is clear what the defined standardized technology will be. Such a disclosure is particularly difficult in traditional, open SDOs that receive large volumes of contributions from all parties with an interest in the SDOs activities. It has recently been reported, for example, that an SDO involved with the development of certain third generation wireless standards is receiving on average approximately 2,000 contributions every three months. Owners of even less than significant patent portfolios including patents that have some relationship to wireless technologies would have to devote enormous resources if they were required to analyze their portfolios in relation to each contribution, when in fact the likelihood is that the ultimate standard will not incorporate many, if not most, of the technology disclosed in the contributions.[23] A rule that requires mandatory "ex ante" disclosure of patents and binding irrevocable license terms, however, would impose upon such patent owners such onerous

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[20] *Id.* at 3-4.

[21] ITU-T Patent Policy, ¶ 1.

[22] *Guidelines for Implementation of ITU-T Patent Policy*, § 2.4.

[23] *See* Teece & Sherry, *supra* ("[a]n obligation to search for 'implicated' IP can be extremely onerous. It is a major task to search a patent database and to compare it against the proposed standard. Patent searching is especially problematic when the standard evolves over time. Further, it is often difficult toknow whether a patent 'reads on' a proposed standard, as that may entail a major effort at claims construction and interpretation"). *See also* ANSI *Guidelines* at 4 ("[i]t should be emphasized that, notwithstanding the incentive for patent holders to indicate an[] early willingness to license, it may not be possible for potential patent holders to give such an assurance until the standards development process has reached a relatively mature stage. It might be that only at that time will the patent holder be aware that its patent may be required for use of the proposed standard").

burdens and costs, because if the patent owners did not undertake such efforts and later discovered essential patents when the standard matured, they could be estopped from asserting their patent rights. As a result the patent owner might re-think its willingness to participate in the SDO with such rules.

Rules requiring "ex ante" mandatory disclosure of binding irrevocable license terms could also create negative incentives for patent owners because it would limit the flexibility of licensors and licensees to establish the most advantageous licensing terms for each as a standard evolves toward a final version. For example, it is well-recognized that consistent with principles of non-discrimination as applicable to SDO patent policies, not every license for the same patent in connection with the same standard needs to be identical.[24] A patent owner "may be justified [in establishing specific license terms for each licensee] by differences in the size of purchasing practices of the licensee, the presence of cross-licenses or other services provided by the licensees, the geographic location of the licensees, the market conditions at the time of the license, the presence of litigation as opposed to a license negotiation in the ordinary course of business, and various other factors."[25] For a patent owner to identify the specific terms that would be included in each license with a wide-range of prospective licensees would be impossible, especially before a standard is sufficiently finalized. If anything, such a mandatory requirement would homogenize licensing terms in ways that would eliminate the ability of licensors and licensees to negotiate mutually advantageous terms specifically suited for the particular circumstance and their particular relationship. Most notably, opportunities for broad portfolio cross licenses might be eliminated by pressures favoring only the least complex royalty based licenses, and as a result, both patent owners and licensees will be deprived of the opportunity to obtain access to wide-ranging technologies that would allow them to compete more effectively both in connection with the standardized technology and beyond.

Thus, the existing incentive for patent owners to make early disclosures and engage in licensing negotiations prior to the finalization of a standard would be undermined further by required statements of irrevocably binding license terms before a standard is finalized, because the circumstances supporting the reasonableness of a license at an early stage of standards development may be very different than those existing once a standard is final. Not only would this impinge on the rights of the patent owner, but it would also distort the way standards development now fosters competition between and among implementing standards participants. Once disclosure of a patent that may be essential is made, an implementer has the opportunity to seek a license for that patent, even though it is not yet certain whether the patent will in fact be

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[24] *E.g.*, Teece & Sherry, *supra*, at 1959 ("[o]ne difficulty is that circumstances (and thus whether a a particular rate is 'reasonable') vary, not only across different patents and different technology but over time. No single rate is 'reasonable'"). *See also Guidelines to the Intellectual Property Rights Policy of the Telecommunications Industry Association* (1st ed. March 2005), at 5 ("[t]he term 'non-discriminatory does not mean or imply that licensing terms must be the same for all applicants. Discrimination and difference are not the same. It is understood that the process of licensing negotiations and the components of consideration between parties can vary substantially yet be fair"); *ITU-T Resolution 1 – Rules of Procedure of the ITU Telecommunications Standardization Section, at Appendix III, Statement on ITU-T Patent Policy* ("[t]he detailed arrangement arising from patents (licensing, royalties, etc.) are being left to the parties concerned, as these arrangement might differ from case to case").

[25] Michael G. Cowie and Joseph P. Lavell, *Patents Covering Industry Standards: The Risks to Enforceability Due to Conduct Before Standard Setting Organizations*, 30 AIPLA Q.J. 95, 149-150 (Winter 2002); *see also* Holleman Submission at 2 ("licenses are based on many factors arising from innumerably varied relationships").

essential. A patent owner has the incentive to agree to such a license, and also to reward the early-to-license implementer, because it might expect to gain the support of the early-to-license implementer for including the patent technology in the standard. The early-to-license implementer may desire to obtain a license to the patent technology, even before it is certain that it will be essential, because it may be able to obtain better license terms than would be available once the standard is mature. The advantageous license terms would then allow the early-to-license implementer to compete better against a late-to-license implementer, whose costs of implementation might be higher. The late-to-license implementer may not have acted earlier for a number of reasons. It might have supported adoption of an alternate technology that ultimately was not included in the standard. Or, it might have found the uncertainty of not knowing whether the disclosed patent was in fact essential sufficient to cause it to wait. It also could have simply failed to consider the licensing issues as effectively as the early-to-license implementer. Regardless of the reason, however, the relative conduct of both implementers – early-to-license and late-to-license – reflects a competitive aspect of standardization that would be eliminated by the proposed "ex ante" rules.[26]

The reasonableness of variable license terms depending on specific patents, technologies, relationships and the timing of licensing negotiations is also entirely consistent with how patent law treats the concept of "reasonableness" for purposes of awarding infringement damages. The *Georgia Pacific*[27] factors provide a flexible approach for defining a "reasonable royalty" depending on the facts and circumstances of each case. And, a "reasonable royalty" for such purposes "is the amount that 'a person, desiring to manufacture [, use, or] sell a patented article, as a business proposition, would be willing to pay as a royalty and yet be able to make [, use, or] sell the patented article, in the market, at a reasonable profit.'" [28] Moreover, a reasonable royalty determination "must relate to the time infringement occurred."[29]

By analogy, the reasonableness of license terms for a patent essential to practice a standard will depend on a number of variables, including when the license negotiation takes place. What a licensor and licensee may be willing to agree upon may vary significantly based on when in the standards development process such negotiations take place, and so long as a licensor has made known what it believes may be essential patents, the opportunity to obtain

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[26] Commentators cited by "ex ante" supporters recognize this competitive dynamic. *E.g.*, Daniel G. Swanson and William J. Baumol, *Reasonable and Nondiscriminatory (RAND) Royalties, Standards Selection, And Control of Market Power*, 73 Antitrust L.J. 1, 15 (2005) ("[o]ne natural solution to the problem of ex post market power is for prospective licensees to negotiate contracts in advance of standard selection, when the market is at its most competitive and proponents of alternative technology are actively vying with each other for advantage"); Joseph Farrel and Carl Shapiro, *Intellectual Property, Competition, and Information Technology*, Institute of Business and Economic Research (2004), at 30 ("[i]f the participants in the standard-setting organization are aware of the relevant patent(s) early on, they can pick an alternative specification that does not infringe on the patent or they can negotiate acceptable licensing terms with the patent holder(s)"); Carl Shapiro and Hal R. Varian, *Information Rules: A Strategic Guide to The Network Economy* (1999), at 171 (recommending to "bargain hard" before becoming locket in and if lock-in is unavoidable, "at least get paid a sweetener up front").

[27] *Georgia –Pacific v. U.S. Plywood Corp.*, 318 F. Supp. 1116 (S.D.N.Y. 1970).

[28] *Applied Medical Resources Corporation v. United States Surgical Corporation*, 435 F.3d 1356, 1361 (Fed. Cir. 2006) (citations omitted).

[29] *Id.*

more favorable license terms early in the process is available to all prospective licensees. This opportunity may even be available if the patent owner does not make the disclosure of a potentially relevant patent. The prospective licensees or some other third party may have knowledge of potentially essential patents and they too are encouraged to make early disclosures of them.[30] Moreover, consistent with the Federal Circuit's recent decision in *Applied Medical Resources*, the proper analogy consistent with the patent laws for determining reasonable license terms in the standards context may require that *only* at the time a standard is sufficiently final and it is possible to establish that the patent is essential can such a determination be made. Only then will it be possible to assess the reasonableness of a license using *Georgia Pacific* type factors. This approach shows that the adoption of the standard is just another factor for consideration, and not the exercise of any unearned market power by a patent owner. Indeed, "[e]ven if user reliance gives [the standard] influence over the market, that influence may enhance, not reduce, competition and consumer welfare."[31]

Existing legal principles consistent with a *Georgia Pacific* approach also can be relied upon where there may be multiple patents essential to a standard. This is what those proposing "ex ante" solutions call the "royalty stacking" problem. Courts, however, have recognized, using a *Georgia Pacific* analysis, that in such circumstances a reasonable royalty for an essential patent that is only one of many applicable to a complex product may not be the same as if it were the sole essential patent. For example, in *Proctor & Gamble v. Paragon Trade Brands, Inc.*,[32] the court applied the *Georgia Pacific* factor concerning the portion of the realizable profit that should be credited to the invention, and then took into account the relative contribution of the patented feature to the success of the product. In so doing, the court considered the value of the patented feature as only a single element in a complex system where "numerous other factors [were] at work" and that had to be considered.[33] Similarly, the Court of Federal Claims, in *Paymaster Technologies, Inc. v. U.S.*,[34] took into account "the stacked royalty of other patents involved in the [product]," and explained that "[t]he inclusion of various patented materials in an invention is referred to as a 'stacked royalty'" and that such "stacked royalties" were necessarily relevant for determining, again consistent with a *Georgia Pacific* analysis, the portion of the profit that may be customary for use of the invention.[35] If the "royalty stacking" issue were to be addressed in an analogous manner, the rationale put forward for a mandatory royalty cap would also be inapplicable, and the consequences of such a cap could be avoided.

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[30] SDOs such as those being discussed here, which only encourage and do not require companies to disclose essential patents, were distinguished by the Federal Trade Commission in the *Dell* proceeding from those who impose such a mandatory requirement on the basis that in the latter an expectation exists in the latter that members will disclose patents, while in the former no such expectation arises. *See In re Dell Computer Corp.*, 121 F.T.C. 616, No. C-3658, 1996 FTC LEXIS 291 (May 20, 1996), at n.6.

[31] *Consolidated Metal Prods., Inc. v. American Petroleum Inst.*, 846 F.2d 284, 296 (5th Cir. 1988).

[32] 989 F. Supp. 547 (D. Del. 1997).

[33] *Id.* at 612.

[34] 61 Fed. Cl. 593 (Fed. Cl. 2004).

[35] *Id.* at 612-13.

Although these cases were not decided in a standards development context, they nonetheless provide a framework that is directly applicable for considering the reasonableness of license terms in connection with standards development. Moreover, the fact that they do not offer hard and fast criteria that define what is a reasonable and nondiscriminatory license does not weaken their applicability. Just as is the case in considering a reasonable royalty for assessing infringement damages, in the standards context there are so many variables in connection with every single situation that a flexible "reasonableness" approach must be used. Patent owners that contribute their proprietary inventions to the standards process do not waive their rights under applicable patent law, and any "ex ante" mandatory rule of the type being proposed by some cannot take into account all variables, and certainly cannot do so without causing substantial negative consequences that will inhibit the effective development of standards.

IV. The "Ex Ante" Proposals Could Have Significant Anticompetitive Consequences And Cause Inefficiencies In Standards Development

While not all "ex ante" proposals are the same, there is a general position put forward that concerns of potential antitrust liability arising from mandatory disclosure obligations and joint determination of license terms should not be prohibitive because such conduct should not be subject to *per se* treatment under the antitrust laws. Particular reliance is placed on the recent comments by Federal Trade Commission Chairman Majoras that "joint ex ante royalty discussions that are reasonably necessary to avoid hold up do not warrant per se condemnation."[36]

From this observation, however, it does not follow that mandatory joint "ex ante" disclosure and negotiation of license terms will not, and does not, carry the potential for antitrust liability. Nor does it follow that the absence of *per se* treatment will afford SDOs and standards participants with certainty that they will not face increased claims and potential liability under the antitrust laws when such mandatory joint conduct is considered under a rule of reason analysis. Indeed, a rule of reason environment may result in greater costs, uncertainty and inefficiencies in the standards development process for patent owners, licensees and even mere participants.

The continued potential for antitrust liability, and even for conduct that would be condemned under the *per se* rule, was explained by Chairman Majoras in her Stanford remarks. She made clear that a rule of reason approach is neither assured nor a safe harbor against antitrust liability. First, "'[h]old up' is by no means inevitable."

> [I]f the chosen standard has to compete with rival standards, the owner of

[36] *Recognizing the Procompetitive Potential of Royalty Discussions in Standards Setting*, remarks of Chairman Deborah Platt Majoras, Federal Trade Commission, Prepared for "Standardization and the Law: Developing the Golden Mean for Global Trade," Stanford University, September 23, 2005 ("Majoras Remarks"). Reliance may also be placed on the Supreme Court's recent decision in *Texaco v. Dagher*, Nos. 04-805 and 04-814, 2006 WL 461525 (Sup. Ct. of the United States Feb. 28, 2006). But there, the pricing policy challenged "amounts to little more than price setting by a single entity – albeit within the context of a joint venture – and not a pricing agreement between competing entities with respect to their competing products." 2006 WL 461525, at *4. Joint determinations of licensing terms in SDOs could be viewed quite differently, as involving pricing decisions among numerous competitors.

> the of the SSO's chosen technology may end up with little market power. If users can respond to a supra-competitive royalty rate by defecting to a rival standard, the patent holder will find itself unable to obtain anything more than the competitive price.[37]

"Hold up" also will not arise when there is competition between different standardized solutions. Implementers may have to make a choice at some point regarding which solution to back, and that might involve a choice between two or more proprietary solutions based on all relevant factors. A wrong choice, however, which would cause an implementer to seek a licnesee on terms available at the time after the standard has been established, would not suggest that the implementer is disadvantaged by any "hold up" problem in connection with the selected alternative. Rather, the result would, again, be simply a consequences of the competitive process that is accommodated and fostered by the open standards process. Similarly, "hold up" would not arise where a next generation technology is developed, and implementers are able to adopt that next generation standard and avoid being locked into the older technology on terms they might not find to be satisfactory. Further, if users have the ability to obtain licensing information before a standard is finalized, which as explained is the common circumstance, there will be no "hold up." Users will be able to negotiate licenses, and to the extent a patent owner resists disclosing specific license terms the user could use the standards development process to object to the inclusion of the proprietary technology in the standard. Each of these factors also serves as significant constraints on a patent owner's ability and incentive to engage in "hold up" conduct.

Second, what has been described as the "hold up" problem may simply involve a patent owner's efforts to offer its proprietary technology for standardization under license terms that reflect that technology's superiority as compared to other patented and non-patented alternatives.[38] Again, Chairman Majoras provides insight in this regard:

> Moreover, even if an intellectual property owner can obtain a royalty higher than those of other technology owners, members of the organization that chose the standard are not necessarily being held up. The higher royalty rate may be explained by the superiority of its technology. That is, its peerless technology – developed through "superior skill, foresight, and industry" – may explain the ability to charge a premium.[39]

In other words, "[a] high patent royalty rate, after all, might just reflect that the Patent Act is functioning correctly and the market is rewarding an inventor for a pioneering invention."[40]

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[37] Majoras Remarks at 3.

[38] *See* Teece & Sherry at 1955 ("[p]resumably, the SSO adopted the patented technology as a standard, rather than some other alternative, because it believed that using the patented technology was superior to the alternatives").

[39] *Id., quoting United States v. Alcoa* 148 F.2d 416, 430 (2d Cir. 1945) (Hand J.).

[40] Pate Remarks at 8.

Given these circumstances, before it can be fully determined whether a rule of reason approach is appropriate for evaluating mandatory joint "ex ante" conduct, a number of steps will be required. As an essential prerequisite, for example, it will be necessary to fully evaluate the nature of the conduct involved and whether that conduct is reasonably necessary to achieve the intended procompetitive benefits.[41] As respects collective decisions to impose mandatory disclosure obligations and require joint negotiation, this determination may be difficult. For reasons previously discussed, such steps may not be necessary to address potential "hold up" problems, including because the traditional standards development process may be deemed effective in doing so without having to resort to the type of conduct at issue. Moreover, "there is generally no categorical line to be drawn between restraints that give rise to an intuitively obvious inference of anticompetitive effect and those that call for more detailed treatment."[42]

Thus, it may be a very difficult, if not impossible, task to conclude that in all instances mandatory "ex ante" disclosure obligations and required joint licensing requirements should be considered under the rule of reason, and even if they are, whether such conduct will ultimately be held permissible under the antitrust laws. For example, such conduct, depending on the circumstances may still be subject to *per se* treatment:

> Joint ex ante royalty discussions, of course can offer an opportunity for SSO members to reach side price-fixing agreements that are per se illegal. If in conducting joint ex ante royalty discussions, manufacturing rivals cross over the line from discussing the price of technology they will "buy," if they choose a particular standard and start discussing – and fixing -- the price of the products they *sell*, summary condemnation is almost certainly warranted. In fact, joint ex ante royalty discussions might make such collusion cheaper: "the costs of gathering together and deciding on a common plan could be spread over plans associated with both buying and selling."[43]

The possibility of an anticompetitive result, including as potentially determined under the *per se* rule, may also arise in connection with the proposed "ex ante" conduct because it may involve the collective fixing of license terms not only of patents essential to a particular standard, but also in connection with non-essential competing patented technology. As previously explained, at the early stages of a standard's development it may not be possible for a patent owner to determine whether a particular patent is or will in fact be essential to the standard that is ultimately approved. Nonetheless, a patent owner has the incentive, and standards participants benefit from, the disclosure of patents that *may* be essential early in the process, and well before a standard is final. If, however, it is required that licensing terms be established collectively at the time all of these patents are disclosed, such terms would control all the disclosed patents, whether or not they ultimately are essential for implementing the standard. As a result,

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[41] *See, e.g.*, Majoras Remarks at 9, *citing*, FTC/DOJ *Antitrust Guidelines for Collaborations Among Competitors* (April 2000), §3.36(b) and DOJ/FTC *Antitrust Guidelines for the Licensing of Intellectual Property* (April 1995), §4.2.

[42] *California Dental Ass'n v. FTC*, 526 U.S. 756, 778 (1999).

[43] Majoras Remarks at 10 (emphasis in original).

competition involving licensing terms for essential and non-essential (and potentially competitive) patents will be eliminated. The likelihood of anticompetitive effects resulting from such conduct is heightened because the joint licensing decisions will be made by licensees of the technology.[44]

Even assuming the conduct at issue will be uniformly analyzed under a rule of reason, the standards development effort could nonetheless become a perilous and extremely expensive exercise for participating companies. For example, even if a company is neither a patent owner nor prospective licensee, but only a member of an SDO participating in the technical work, in each instance that joint licensing conduct is pursued in the SDO that company prudently would have to evaluate the pro- and anticompetitive effects that might arise from such conduct, and assess whether, even assuming that the better legal arguments are that liability should not arise, the risk that litigation, regardless of its merits, might nonetheless be commenced against the SDO and the SDO participant outweighs its continued participation in the SDO.[45] Given the complexity of communications and information technology markets this assessment may be particularly difficult and entail the consideration of many factors, including whether those promoting the joint "ex ante" negotiation of license terms are doing so for appropriate procompetitive reasons, or solely to advance their own commercial licensing strategies at the expense of their competitors.

In addition, standards development may become less efficient if the type of "ex ante" conduct being proposed is required in SDOs. Speed is of the essence in the development of technical standards, especially in industries in which technology is constantly emerging. If it becomes necessary to evaluate the competitive effects of joint "ex ante" conduct, however, the ability to conclude the technical development of a standard could be tremendously inhibited. Engineers who typically develop standards could not make such determinations and, as a result, in each instance reference to legal counsel would be necessary. And even then, the likelihood of a clear and conclusive determination concerning the antitrust risks or the risks of legal challenge in connection with specific conduct might not be possible. As a consequence, rather than seeking optimal (in a technical and commercial sense) solutions, less satisfactory and perhaps more costly results may occur. In particular, SDO participants may purposefully reject patented technology that offers a superior and more cost effective alternative simply to avoid engaging in joint conduct that might expose them to a greater risk of liability and require them to engage in costly and time consuming competitive analyses.

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[44] *See* DOJ 3G Patent Platform Partnership Business Review Letter, November 12, 2002, at 8 ("[t]he modification of the original Platform proposal to exclude licensees from the determination of license and royalty terms, unless they are also licensors of essential patents for a specific PlatformCo, protects against the Platform entities becoming vehicles for licensees of any one 3G technology or multiple technologies to collectively acquire market power over licensors that they do not individually have"), available at, www.usdoj.gov/atr/public/busreview/200455.htm.

[45] Examples exist where suit was commenced against SDOs and their participants, and although ultimately dismissed, required significant investment of time and expense. *See, e.g., Addamax Corp. v. Open Software Foundation, Inc.*, 152 F.3d 48, 50-51 (1st Cir. 1998) (explaining trial court ruling that factual issues of market power and anticompetitive effect were "unsuitable for disposition on summary judgment"); *Sony Electronics, Inc. v. Soundview Techs. Inc.*, 157 F. Supp. 2d 180 (D. Conn. 2001) (denying motion to dismiss antitrust claim against SDO); *see also Wuxi Multimedia, Ltd. v. Koninklijke Philips Electronics, N.V., et al.*, Civil Action No. 04-cv-1136-DMS (S.D. Cal.) (alleging antitrust violations in connection with patent pool that was subject to DOJ Business Review Process).

V. Conclusion

There is no doubt that including proprietary technology in standards raises many competitive issues. This has been recognized for many years. What has also been recognized, however, is that there are many, many, many factors that are implicated when attempting to address what may be a legitimate issue. These factors have grown in number and complexity as technology has evolved and competitive relationships and strategies have been redefined. These issues have also become more difficult as the standards development process itself has grown as a competitive arena, as reflected by competition among SDOs to develop standards and as SDOs are used by participants in the standards development process to wholly-legitimately further their competitive strategies.

As a result, proposals such as those discussed in this paper must be considered very carefully, regardless of their seemingly attractive nature. For every positive effect that may result, substantial negative consequences may also emerge. Accordingly, any proposed measures must be weighed against the real risks that the problems sought to be addressed will or do actually exist, whether the perceived problems are indeed problems as distinct from permissible and legitimate conduct, and whether the proposed solutions will do more harm than good.