

University of Minnesota Law School Scholarship Repository

Minnesota Law Review

2003

Why Antitrust Should Defer to the Intellectual Property Rules of Standard-Setting Organizations: A Commentary on Teece and Sherry

Michael A. Carrier

Follow this and additional works at: <https://scholarship.law.umn.edu/mlr>

Part of the [Law Commons](#)

Recommended Citation

Carrier, Michael A., "Why Antitrust Should Defer to the Intellectual Property Rules of Standard-Setting Organizations: A Commentary on Teece and Sherry" (2003). *Minnesota Law Review*. 784.
<https://scholarship.law.umn.edu/mlr/784>

This Article is brought to you for free and open access by the University of Minnesota Law School. It has been accepted for inclusion in Minnesota Law Review collection by an authorized administrator of the Scholarship Repository. For more information, please contact lenzx009@umn.edu.

Commentary

Why Antitrust Should Defer to the Intellectual Property Rules of Standard-Setting Organizations: A Commentary on Teece & Sherry

Michael A. Carrier[†]

INTRODUCTION

Standards offer significant benefits, such as enhancing product interoperability and increasing competition. But standards may not be utilized where the owner of intellectual property (IP) that is essential to the implementation of the standard refuses to license it. Not surprisingly, then, many standard-setting organizations (SSOs) have adopted rules restricting their members' use of intellectual property. These rules typically require members to search for, disclose, and license at a "reasonable and nondiscriminatory" rate any IP (usually patents) that is implicated by the standards.

In their article, *Standards Setting and Antitrust*,¹ David Teece and Edward Sherry thoroughly describe the IP rules adopted by SSOs and they question whether antitrust has a useful role to play in analyzing these rules. In this response, I agree with the authors' conclusion that antitrust should have only a limited role, but I draw more fully on the jurisprudence and rationales of antitrust to reach this result.

Part I of this Commentary sets forth Teece and Sherry's description of standards and of the IP rules of SSOs. Part II explores the bases for the authors' suspicion of a role for antitrust, in particular, questioning several underpinnings of their wariness. Part III offers a more developed rationale for a

[†] Assistant Professor, Rutgers University School of Law-Camden.

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

limited antitrust role in the assessment of the IP rules of SSOs.

I. THE STANDARD-SETTING LANDSCAPE

Teece and Sherry present a detailed account of the standard-setting landscape, which focuses on the participants in, and IP rules of, SSOs.

A. BACKGROUND ON STANDARDS AND SSOs

The authors begin by introducing the different types of standards,² and choose for the focus of their article interoperability standards.³ Such an emphasis makes sense: These standards are the most likely to be exclusive and to implicate intellectual property,⁴ and they offer significant benefits in “avoiding customer ‘lock-in’” and “creat[ing] markets by enabling firms to achieve scale economies in production.”⁵ As a result of their exclusivity and pro-competitive justifications, interoperability standards pose the greatest challenge to antitrust.

Teece and Sherry continue their tour of the standard-setting landscape by distinguishing among the various ways in which standards are created: through formal, long-lived SSOs, informal ad hoc consortia of interested parties formed for a certain purpose, and de facto standards developed as markets characterized by network effects tip towards one product.⁶ They also explain the difference between private standards and government regulations,⁷ and illustrate the danger of the latter in allowing parties to “co-opt the regulatory process to protect

2. A standard can be defined as “any set of technical specifications which either does, or is intended to, provide a common design for a product or process.” 2 HERBERT HOVENKAMP ET AL., *IP AND ANTITRUST: AN ANALYSIS OF ANTITRUST PRINCIPLES APPLIED TO INTELLECTUAL PROPERTY LAW* § 35.1, at 35-3 (2002).

3. Interoperability standards are also the focus of this paper. In addition to interoperability standards, Teece and Sherry discuss product gradation standards (which allow consumers to compare product features) (Teece & Sherry, *supra* note 1, at 1916); performance standards (which specify that a product “must achieve certain performance characteristics . . . in whatever fashion they can”) (*id.*); and design standards (“which specify particular features” that goods must have) (*id.*).

4. Mark A. Lemley, *Intellectual Property Rights and Standard Setting Organizations*, 90 CAL. L. REV. 1891, 1898 (2002).

5. See Teece & Sherry, *supra* note 1, at 1916-17.

6. *Id.* at 1917. In network effects markets, an increase in the number of users increases the value of the product.

7. *Id.* at 1918.

their market position against potential competitors.”⁸

Delving into the membership of SSOs, the authors parse the various roles played by the participants. Teece and Sherry distinguish between technology markets and product markets,⁹ and note that patentee manufacturers may play three different roles: (1) seller in the technology market (which licenses its patented technology to others); (2) seller in the product market (which sells the product in the marketplace); and (3) buyer in the technology market (which licenses other firms’ patented technology).¹⁰ IP users will outnumber IP owners in SSOs, according to the authors, because “a patent has only one owner, but multiple manufacturers may need to use the patented technology.”¹¹ As a result, “the demand side of the technology market” dominates SSOs, which “are likely to adopt procedural and substantive rules that favor IP users over IP owners.”¹²

The authors segment the standard-setting process not only in terms of membership, but also in terms of timing. Teece and Sherry emphasize the difference between the *ex ante* and *ex post* bargaining power of the patentee whose technology is incorporated into the standard. Before the selection of the standard, the patentee’s power often is limited by the SSO’s ability to choose among a range of roughly similar alternatives.¹³ After adoption, however, the patentee whose technology is incorporated into the standard gains significant leverage based on the difficulty of switching to a new standard and the sunk costs that parties have incurred in implementing the standard.¹⁴

The voluntary nature of participation in SSOs draws significant attention from the authors. Participants will “choose not to participate” if their interests are not protected in the SSO process.¹⁵ And even if firms do not set the standard,

8. *Id.* at 1918.

9. *Id.* at 1928.

10. *Id.* at 1928-29.

11. *Id.* at 1931.

12. *Id.* For a critique of the conclusion that IP users predominate in the standard-setting process, see *infra* notes 64-70 and accompanying text.

13. See Teece & Sherry, *supra* note 1, at 1936-38.

14. See *id.*

15. *Id.* at 1944; see also *id.* at 1973 (arguing that if SSOs impose rules that are too onerous, firms will not participate); *id.* at 1950 (stating that disclosure rules are “likely to deter firms with significant IP portfolios from participating in an SSO” since “the risk of losing the ability to enforce patents is likely” to be too great relative to “the gains the firm receives from

they still “can get most of the benefits from standardization by adhering to the standard once set”¹⁶ and suffer only in “disagree[ing] with the standard ultimately chosen.”¹⁷ Even worse, the “fundamental asymmetry” between participants and nonparticipants favors the latter, who are not bound by SSO rules and who can assert their patents against those practicing the standard without being bound by the SSO’s search, disclosure, and licensing policies. “Such an asymmetric situation provides an incentive for firms *not* to participate in the standards-setting process,”¹⁸ the authors conclude.¹⁹

In other instances, however, Teece and Sherry argue the contrary, conceding that there often will not be an alternative to participation in the SSO. Leaving the SSO “entails foregoing any opportunity to affect the SSO’s decision,” which the authors contend is especially troublesome for parties that are IP users in addition to IP owners.²⁰ Consequently, the “voluntariness’ of participation in SSOs may be illusory” as firms “may conclude that they have little practical choice but to participate in certain SSOs [which] may be ‘the only game in town.’”²¹ Other SSO participants may be aware of this internal conflict, and “may take advantage of the firm’s predicament by setting onerous rules that adversely affect the IP holders’ interests.”²² The authors do not reconcile these assertions with their earlier observations that the primary benefit of the standard can be obtained even by those outside the SSO.

participating in the standards-setting process”).

16. *Id.* at 1950.

17. *Id.* at 1978.

18. *Id.* at 1980.

19. The authors ignore the dangerous possibility that closed SSOs licensing only to their members may prevent nonparticipant competitors of SSO members from using patents essential to implement the standard. This neglect leads them to propose various solutions to the “asymmetry” (e.g., a “two-tiered” membership distinguishing between full participation in standard setting and observation of the standard-setting process) that do not address this critical issue. *See id.* at 1980-81.

20. *See id.* at 1944.

21. *Id.* at 1944-45.

22. *Id.*; *see also id.* at 1980 (stating that affected firms “naturally want to ‘have a voice’ in decisions that affect them”).

B. INTELLECTUAL PROPERTY RULES OF SSOS

Teece and Sherry next turn their attention to the heart of the article: the intellectual property rules of SSOS.²³ They begin with rules requiring members to search for IP potentially implicated in the standard. They note the difficulty of the obligation to search for relevant patents, which requires the complex determination of whether a patent reads on a proposed standard, and which is especially burdensome for the owners of large patent portfolios.²⁴ The authors contend that the use of computerized patent databases eliminates any advantage possessed by the patentee in searching for potentially relevant patents and find it more “cost-effective” for the SSO to assume this function.²⁵ Such a shift would in fact lift a significant burden from the patentee. But the authors do not contemplate that the change would reduce the incentive to search for all relevant patents since the consequence of a thorough search would not be (as it would for the patentee) the potential reward of a patent implicated in a standard, but rather, a liability for willful infringement.²⁶

Disclosure obligations are next on the agenda. Teece and Sherry explain that the obligation to disclose relevant patents is complicated by the necessity of determining whether a particular patent reads on the standard, which requires the uncertain task of claim interpretation.²⁷ And they argue that a disclosure policy “is likely to deter firms with significant IP portfolios from participating in an SSO that has such a policy.”²⁸ The combination of SSO policies requiring a duty to disclose but not a duty to search for relevant patents results in “willful ignorance,” according to the authors.²⁹

Licensing rules follow. Teece and Sherry recognize, though

23. Because most SSO policies address patents, Teece and Sherry’s article (as well as this response) focuses on this form of intellectual property.

24. See Teece & Sherry, *supra* note 1, at 1946.

25. *Id.*

26. See *Competition and Intellectual Property Law and Policy in the Knowledge Based Economy: Hearing Before the Dep’t of Justice Antitrust Div. and Fed. Trade Comm’n*, 46 (statement of Mark Lemley), <http://www.ftc.gov/opp/intellect/020418trans.pdf> (April 18, 2002).

27. See Teece & Sherry, *supra* note 1, at 1948-49.

28. *Id.* at 1950.

29. See *id.* at 1951. Mark Lemley’s empirical study of SSO policies showed that, of the SSOS with written policies governing intellectual property, 24 of 36 imposed a duty to disclose, but only 4 of 36 imposed a duty to search. See Lemley, *supra* note 4, at 1904-05.

they do not fully explore, the conundrum presented by a patentee announcing the terms of licensing in advance: limiting ex post holdup but raising the antitrust concern of price coordination.³⁰ They offer reasons why “reasonable and nondiscriminatory” (RAND) terms are often not elaborated.³¹ And they address royalty-free licensing, recognizing its administrative simplicity³² but lamenting its failure to adequately compensate the patentee and its use by the government enforcement agencies.³³ Finally, the authors discuss nondiscriminatory licensing, focusing on the complication that arises in the context of portfolio licensing and cross-licensing, where firms that already have a license to use a patent wish to avoid paying for a second license after it has been incorporated into a standard.³⁴

Throughout *Standards Setting and Antitrust*, the authors draw on real-world observations. They detail the consequences of companies sending engineers to SSO meetings—representatives who often are hostile to patents and are not aware of their firms’ patent portfolios.³⁵ They note the practical difficulty of determining nondiscriminatory terms in RAND licensing in the context of portfolio-wide cross-licenses and patent pools.³⁶ They explain that written SSO policies, such as those requiring the announcement in advance of royalty rates, often are ignored and that SSO representatives disclose “only a tiny fraction” of potentially relevant patents.³⁷ And they offer case studies, such as the California Air Resources Board (CARB)/Unocal standard for reformulated gasoline,³⁸ and behind-the-scenes detail, such as participants’ likely knowledge of patent applications in the Rambus case.³⁹

30. See Teece & Sherry, *supra* note 1, at 1955.

31. These reasons include issues such as competence and rapidly changing technology. See *id.* at 1958.

32. *Id.* at 1954.

33. *Id.* at 1955-57.

34. See *id.* at 1961-63.

35. See *id.* at 1930. The engineers’ hostility stems from “seeing IP claims as ‘getting in the way’ of choosing the ‘best technological solution.’” *Id.*

36. See *id.* at 1961-63.

37. *Id.* at 1971.

38. *Id.* at 1920-24.

39. *Id.* at 1967-68.

C. ROLE OF ANTITRUST

Teece and Sherry expend significantly less effort discussing antitrust and the role it can play in the analysis of SSOs. On four occasions in their article they flag a potential antitrust concern in the standards process. They recognize that a patentee, by manipulating the standard-setting process, can gain market power in the technology market, which can be employed to obtain a higher price for the use of its technology.⁴⁰ They note that “the activities of SSOs can affect non-participants, and one rationale for antitrust intervention is to protect the interests of such non-participants from being adversely affected by decisions in which they did not participate and or could not exert influence.”⁴¹ They mention the “obvious examples of manipulation of SSO rules/policies, such as the ‘stuffing the ballot box’ example of *Allied Tube*, in which antitrust intervention may be the only solution.”⁴² And they note that a patentee’s announcement of licensing terms *ex ante* offers the potential for collusive, oligopolistic price-fixing and group boycotts.⁴³ But they do not follow up on any of these dangers by exploring the appropriate role for antitrust.

Teece and Sherry devote substantially more attention to the perils of applying antitrust. Of greatest concern, they contend that the application of antitrust leads to delay. The “significant social benefits”⁴⁴ yielded by standardization are halted by “public policies that slow the adoption of standards [and that] can have very detrimental economic effects.”⁴⁵ The authors “believe that [antitrust] intervention runs a significant risk of slowing down the standards-setting process, thus delaying the adoption of new standards and new products made in accordance with those standards, to the detriment of consumers and of society generally.”⁴⁶

Antitrust intervention also limits clarity, according to the authors. “Unfortunately, in our opinion, *ex post* antitrust enforcement efforts are often likely to *reduce* clarity and predictability, rather than enhance it.”⁴⁷ The authors are

40. *See id.* at 1977.

41. *Id.* at 1986-87.

42. *Id.* at 1987.

43. *Id.* at 1955.

44. *Id.* at 1975.

45. *Id.*

46. *See id.* at 1986.

47. *Id.* at 1982.

“concerned” that “antitrust intervention may reduce the clarity of the rules, thereby making participation in SSOs more risky.”⁴⁸ Ex post antitrust intervention also “runs the serious risk of failing to recognize the ex ante balancing of competing interests.”⁴⁹

Finally, the authors bemoan the use of antitrust as a scheme for self-help by competitors. A patentee seeking royalties ex post may find itself confronting alleged infringers seeking to “use the leverage of the antitrust law to compel the patent holder to allow them to use the patent.”⁵⁰ The authors worry that “the other SSO members [would be] able to obtain a compulsory license at a court-ordered rate (or for free), rather than having to negotiate and pay for a license.”⁵¹

In short, the authors present a thorough version of standards and SSO rules limiting IP, but a more restricted and dismissive version of antitrust, one which is focused on the dangers of applying the discipline.

II. REMOVING THE EXCESS BAGGAGE IMPOSED ON ANTITRUST

Antitrust should play only a limited role in standard-setting activity, but this is for reasons different than those offered by the authors. This section removes the excess baggage that Teece and Sherry impose on antitrust, thereby allowing a more focused analysis on the structure of, and

48. *Id.* at 1986.

49. *Id.* at 1987. The authors’ argument that the SSO is in a better position than the antitrust authorities “to strike a better balance of the competing interests of the various SSO participants” is substantially less convincing after they concede that “the existing policies often appear to be a matter of historical accident and are not likely to reflect a well-thought-out or ‘optimal’ degree of diversity.” *Id.* at 1985-86 n.228 (discussing results of empirical survey conducted by Mark Lemley). The concession also weakens their assertions (1) that the IP policies reflect “political compromise” within the SSO and (2) that the SSOs “did not believe that the issue was important enough to carefully consider the range of alternative policies.” *Id.*

50. *Id.* at 1982.

51. *Id.* The authors do not compare the relationship between the court-ordered rate and the RAND rate. More fundamentally, Teece and Sherry do not consider *why* a court might legitimately accept an argument that compulsory licensing is appropriate. Examination of this issue would show that such a remedy typically should not apply, and that any severe anticompetitive effects that might warrant compulsory licensing, *see infra* notes 80-81 and accompanying text, assuages any concern that antitrust is enlisted solely as a self-help sword by competitors.

rationale for, the discipline.

The baggage takes three forms. First, the authors place too much emphasis on the goal of speed in the antitrust analysis of SSOs. Second, they do not sufficiently engage the antitrust statutes and case law, which inform the determination of the proper role for antitrust. Third, they argue against the application of antitrust because of an SSO playing field unfairly tilted towards IP users and away from IP owners. None of these three arguments is necessary, and each of them unnecessarily weakens the hand of antitrust.

A. "THE NEED FOR SPEED"⁵²

If the goal is speed, antitrust will not win. Nothing in its apparatus is conducive to speed. Litigation is lengthy, and court rulings frequently are mooted by the swirling winds of technological change. But the purpose is not always speed. Antitrust promotes competition goals even at the cost of delay. Framing the issue of the proper role for antitrust in terms of delay sets up a contest antitrust is doomed to lose.⁵³

Teece and Sherry concede that there "clearly is a legitimate role for antitrust policy in connection with standards setting."⁵⁴ As noted above, they recognize the power of a patent holder to gain market power by manipulating the standard-setting process; they claim a role for antitrust "to protect the interests of [] non-participants"; and they note that antitrust might be the only solution for "obvious examples of manipulation of SSO rules policies."⁵⁵ It is unclear, however, how their version of antitrust could address anticompetitive acts since the application of antitrust in each instance would slow down the SSO.

52. *Id.* at 1975.

53. Of course, Teece and Sherry's wideranging article covers more than just "the need for speed." See *supra* Part I. But the focus on speed will determine the role for antitrust. Antitrust cannot play a role when "intervention runs the risk of delaying the adoption of standards, thereby reducing the economic gains from standardization and reducing social welfare generally." Teece & Sherry, *supra* note 1, at 1988; see also *supra* notes 44-48 and accompanying text. Nor does the analysis change when the focus shifts backward to the prospect of antitrust intervention delaying the standard-setting process. While this could conceivably postpone the beneficial process of setting standards in some cases, such a result is the inevitable consequence of any antitrust role in the analysis of SSO activity.

54. *Id.* at 1987.

55. *Id.*

The authors correctly observe that many industries with interoperability standards are characterized by short product generations.⁵⁶ But the proper role for antitrust might in fact be able to recognize, without completely deferring to, the speed of innovation. For example, market power will often be less durable in industries with rapid product innovation: the Schumpeterian gale of creative destruction threatens to topple the very “monopolists” it sweeps into power. Consequently, antitrust might refrain from acting not because it is powerless to act in the face of the speed of the industry but because the fluid and dynamic nature of innovation minimizes the likelihood of market power. Courts also could consider speed in their analysis of the pro-competitive justifications explaining standard-setting rules: policies that foster competition and that limit holdup in a rapidly changing industry deserve deference. In short, traditional antitrust analysis should be able to accommodate the speed of innovation, and must be applied so that activity with significant anticompetitive effects does not receive immunity.⁵⁷

B. LIMITED ANTITRUST CONSTRUCT

Teece and Sherry’s focus on speed is made easier by their insufficient engagement of the structure and jurisprudence of antitrust. Antitrust has a more multivariied dossier than the one-dimensional version offered in their article, which stands naked of any references to statute, case law, or rationale, and which takes on a caricature of a role.

Antitrust in the article is one-size-fits-all. On numerous occasions, the authors advocate a limited role for antitrust because one-size solutions fail to take into account all of the nuanced rules of various SSOs.⁵⁸ They even devote a section to the *Problems with ‘One Size Fits All’ Policies*.⁵⁹ But just like the need for speed, the focus on one size determines the outcome. Few are in favor of one-size rules. Antitrust nonetheless can offer more than one-size rules. Just the asking of the question whether one-size-fits-all antitrust should limit

56. *See id.* at 1975.

57. There also may be room for expedited judicial consideration, such as the district court employed in the *Microsoft* proceeding.

58. *See Teece & Sherry, supra* note 1, at 1943, 1966, 1980, 1985-87. For a discussion of the random, rather than deliberate, nature of the diversity of SSO rules, *see supra* note 49.

59. *See Teece & Sherry, supra* note 1, at 1985-87.

SSOs determines the answer: no.

Antitrust takes on a caricature one-size persona in part because the authors do not develop the statutory (supplemented by judicial) construct of antitrust. Sections 1 and 2 of the Sherman Act and even the terms monopolization and agreement make their appearance only in one footnote, which asks: “Is the concern one of a conspiratorial agreement under section 1 of the Sherman Act, or monopolization or attempted monopolization under section 2 of the Sherman Act? If so, presumably the challenger must establish the other elements of any such claims.”⁶⁰ Of course, the challenger “must establish the other elements” of the claims. But paying more attention to these causes of action would have provided a more grounded explanation of the difficulties facing antitrust in analyzing SSO activity.⁶¹

For example, a paradigmatic danger of standard setting occurs where the owner of a patented input necessary for the implementation of the standard refuses to license it on reasonable terms after the standard is adopted. The authors recognize that a patentee’s ex ante announcement of licensing terms triggers antitrust concern and that the absence of such clarification would leave the licensing terms with “little teeth.”⁶² But rather than engaging in any comparative assessment of the potential anticompetitive effects of oligopolistic price fixing and group boycotts, on the one hand, and the pro-competitive justifications of reducing the likelihood of ex post holdup by providing clear licensing terms, on the other, the authors avoid the issue. Instead, they turn to what they consider the “significant difficulty” that involves the effect of the adoption of the standard on the bargaining position of the parties.⁶³

60. *Id.* at 1983 n.219. This excerpt is followed by a paragraph discussing section 5 of the FTC Act and its inapplicability to private causes of action. *Id.*

61. An encyclopedic treatment of the application of the antitrust construct to SSOs is not necessary and, in any event, has been provided by the valuable treatise *Intellectual Property and Antitrust*, HOVENKAMP ET AL., *supra* note 2, ch. 35. But a fuller explication at least would have provided a context within which to analyze the IP rules of SSOs. For example, it could have situated the analogue much closer to a pro-competitive arrangement that remedies some of the excesses of the patent system and that promotes innovation than to anticompetitive cartel-like activity by which parties that collectively have market power injure competitors.

62. *Id.* at 1955.

63. *Id.* at 1956.

C. A DECK STACKED AGAINST IP OWNERS

Teece and Sherry contend that the deck is stacked against IP owners. SSOs are characterized by a “societally inefficient attitude towards IP,”⁶⁴ rules that favor users rather than owners, and engineers with a bias against patents.⁶⁵ “[P]olicies that further burden IP and IP holders will only exacerbate the problem” of insufficient reward for IP holders and so antitrust must tread warily when making public policy.⁶⁶ On a number of grounds, the stacked deck metaphor does not persuade.

As an initial matter, it is unclear how stacked the deck really is. As Teece and Sherry recognize, many firms take on the roles of both IP owners and users in the standard-setting process.⁶⁷ Because many parties will not know *ex ante* if they will be IP owners or users, a “veil of ignorance” may prevent them from adopting policies that would significantly favor either category.⁶⁸ Moreover, even though “a patent has only one owner,” the likelihood of multiple patents reading onto a particular standard increases the number of IP owners that would tend to be present in the SSO.⁶⁹

Nor is it obvious that IP owners only lose from rules restricting IP. Interoperability standards often implicate numerous patented inputs. The combination of a reasonable royalty and the assurance that more, even if not all, parties with essential patents will license their IP may be more valuable than a patentee’s unfettered right to receive maximum royalties where there is a greater likelihood that other patentees refuse to license their inputs and threaten to hold up the standard or file infringement litigation.⁷⁰ Holdup

64. *Id.* at 1934. The authors claim that SSOs “act in a socially inefficient fashion when determining whether to adopt a standard on which a firm has a patent.” *Id.* at 1931 (emphasis omitted). Such a claim, however, is unsurprising and proves too much: every private entity seeks to maximize private reward and cannot be expected to maximize societal welfare. Of course, the view is different from the vantage point of a government enforcement agency, which would be more likely to treat a royalty as a transfer payment rather than a private cost. *Id.* But even on this point, Teece and Sherry concede the “major caveat” that the transfer payment imposes social loss after taking into account rent-seeking behavior. *Id.* at 1934 n.77.

65. *Id.* at 1934.

66. *Id.*

67. *Id.* at 1928.

68. See Lemley, *supra* note 4, at 1946; cf. JOHN RAWLS, A THEORY OF JUSTICE 11 (rev. ed. 1999).

69. Teece & Sherry, *supra* note 1, at 1931.

70. This conclusion is less likely for royalty-free licensing.

affects IP owners as well as IP users.

But even assuming, *arguendo*, that IP owners “lose” to IP users in influence in setting SSO policies does not necessarily alter the role of antitrust. Any effect that the SSO has on the patented product must be considered not in a vacuum, but in the context in which it occurs. Adoption of a technology as a standard will often grant significant power, which does not stem solely from the technological superiority explaining the issuance of the patent. A patent incorporated into a standard receives not only a twenty-year right to exclude but also additional reward in the form of market power resulting from its use in the standard.⁷¹

The patentee likely gains far more from the incorporation of its patented product into a standard (even if it is limited to RAND terms) than it “loses” from IP users’ greater influence. Does this balance mean that antitrust should play a more active role than it otherwise would? Well, only if this were the proper equation. But it is not. Instead, the focus should be on the anticompetitive and pro-competitive effects of the SSO rule.

The deck stacked against IP, the sole goal of speed, and the undeveloped view of antitrust unnecessarily restrict the role of the discipline. Even if the proper role for antitrust is in fact limited, it deserves more texture than the authors provide.

III. THE PROPER ANTITRUST TREATMENT OF SSO RULES RESTRICTING IP

Section 1 of the Sherman Act, which targets agreements among competitors, provides the framework for analyzing the proper role for antitrust treatment of the IP rules of SSOs.⁷² These rules will almost always be lawful under section 1 because of their lack of anticompetitive effects and their significant pro-competitive benefits.

71. Teece and Sherry recognize this point. *See* Teece & Sherry, *supra* note 1, at 1938 (arguing that adoption of a standard may allow a patentee “to extract not only the gains from using its patented technology vis-à-vis other alternatives, but also a portion of the gains from standardization generally”).

72. Although there is a role for section 2 in other types of SSO activity, IP rules adopted by SSOs composed of many competitors who typically lack monopoly power will more naturally be considered under section 1.

A. SSOs, IP, AND ANTICOMPETITIVE EFFECTS

For several reasons, SSOs adopting standards implicating intellectual property typically will lack significant anticompetitive effects. First, the SSOs differ from other potentially suspicious arrangements in offering significant pro-competitive benefits such as enhancing interoperability and resolving patent bottlenecks. Therefore, their existence and the policies they adopt, such as rules limiting IP, should never receive per se condemnation⁷³ and should always be analyzed under the “rule of reason.”⁷⁴

Second, and relatedly, SSOs do not resemble a collection of horizontal competitors that conspires to raise price or to reduce output. The primary concern of section 1 is to prevent competitors from entering into agreements that unreasonably reduce competition. SSOs generally do not implicate this concern.⁷⁵ Any sharing of information among SSO members is not for the purpose of comparing sensitive business information,⁷⁶ but rather to reduce the likelihood of holdup. Additionally, the timing of activity, by which IP rules are enacted before the standard is adopted, lessens the likelihood of a cartel.⁷⁷

Third, the limited importance of setting the standard in relation to the benefit of practicing the standard reduces antitrust concern below the level confronting other collections of horizontal competitors. Even the outsider that is not a member of the SSO and that does not participate in the setting of the standard will be able to practice the standard. Other than the case in which a closed SSO licenses only to members of the group,⁷⁸ membership in the SSO is not necessary to

73. If the organization is only a sham for cartel-type activities, such analysis would not apply.

74. Courts applying the rule of reason consider not only the anticompetitive but also the pro-competitive effects of agreements.

75. Any fear that standardization reduces product differentiation is not significant in the context of interoperability standards, the absence of which will often lead to fewer products in the marketplace.

76. See *Am. Column & Lumber Co. v. United States*, 257 U.S. 377, 399-409 (1921) (holding that trade association members that shared sales information, production information, and inventory data and that received reports identifying past and future production of competitors violated section 1).

77. See Lemley, *supra* note 4, at 1952.

78. See *supra* notes 80-81 and accompanying text.

practice the standard.⁷⁹ The situation thus differs from the typical case of collusion among competitors, where the excluded party receives no benefit from the arrangement.

Fourth, because of the operation of the patent system and the nature of innovation, the outsider often has influence far beyond its market share. Where the outsider holds a patent that reads onto the proposed standard, it must provide its permission before the SSO can invoke the standard. Products in industries characterized by interoperability—such as semiconductors and computer software—typically contain hundreds or thousands of patented inputs. Each owner of an essential patent implicated in the product can block the implementation of the standard, thus increasing the influence of the outsider. In contrast, the typical firm with minimal market power that is excluded from an arrangement among competitors that collectively possess market power lacks such influence.

The primary concern raised by SSOs adopting standards based on intellectual property is a concerted refusal to deal with competitors. This might occur where closed SSOs, made up of members that collectively have market power, enact a rule that has a significant adverse effect on competitors. An obvious example would involve the licensing of IP only to SSO members, thereby injuring competitors outside the SSO.⁸⁰ This scenario warrants antitrust scrutiny, and courts and the enforcement agencies should examine the market power of the parties and any justifications for the conduct. Otherwise, the IP rules of SSOs do not implicate antitrust concern.⁸¹

79. According to Teece and Sherry, SSO membership may even be a *detriment* since outsiders are able to practice the standard without being subject to the disclosure and licensing rules imposed on members of the SSO. See Teece & Sherry, *supra* note 1, at 1980.

80. Lemley, *supra* note 4, at 1946-47.

81. Mark Lemley would also carve out a role for antitrust scrutiny where SSOs “cap the total fees that will be paid to license all patents.” *Id.* at 1947. He cites the example of the 3G patent platform, which endeavors “to limit maximum royalties” for 3G mobile communication services. *Id.* Lemley’s concern is that capping the fees paid to IP owners “depresses the total price to be charged for innovation.” *Id.*

The 3G patent platform may not be as dangerous as Lemley intimates, however: the asymmetric power of each patentee seller prevents some of the dangers of a pure monopsony. Even if SSOs were to impose explicit maximum royalty caps, their voluntary nature ensures that they would only be able to affect the members of the organization. A patentee with a patent essential to the implementation of the standard could refuse to join the SSO, refuse to

B. SSO RULES RESTRICTING INTELLECTUAL PROPERTY

SSO search, disclosure, and licensing rules do not have direct adverse effects on competition, such as harming consumers or raising price. Rather, they have significant pro-competitive justifications.

Search rules merely require SSO members to search for IP that might read on a standard, an obligation that does not lead to anticompetitive effects.⁸² Disclosure rules provide useful information to members deciding on a standard. In particular, they inform the members of the SSO of the intellectual property that would be implicated by the selection of certain standards. Disclosure rules, again, differ from information-sharing arrangements that have warranted antitrust scrutiny.⁸³ For rather than abetting the sharing among competitors of sensitive price information that reduces competition, the information produced by such rules prevents the strategic hiding and ex post exploiting of IP, activity that serves no legitimate purpose.

Licensing rules are even more critical in avoiding the holdup problem of patentees imposing onerous licensing terms after the adoption of the standard. They thus offer a significant

license its patent, and thereby hold up the standard. As a consequence, even an SSO possessing significant market power has less control than is present in other types of arrangements because of the importance of every essential patent that reads onto the standard. Any maximum royalties set by the SSO, therefore, will not necessarily equal the *total* royalties where patentees with patented inputs necessary for the implementation of the standard do not join the SSO.

Moreover, there are benefits to the 3G Patent Platform that promise to encourage innovation, even if royalties are reduced. Patentees that join the SSO receive “an authoritative . . . endorsement of the strength of each patent holder’s portfolio of Essential Patents.” UMTS INTELLECTUAL PROP. ASS’N & 3G PATENT PLATFORM P’SHIP, 3G PATENT PLATFORM FOR THIRD GENERATION MOBILE COMMUNICATIONS SYSTEMS § 6.1.2 (2002), *available at* <http://www.3gpatents.com/3g3p/9977qwebsite.pdf>. The SSO also promises to “reduce the costs and thus the price . . . of providing licenses.” *Id.* § 5.

Reducing the likelihood of holdup from other patentees and of infringement litigation often will have the net effect of increasing the royalties received by patentees. And in the end, the SSO recognizes that “it is impossible to guarantee participation of any patent holder or, for example, patent holders whose sole interest is to maximize their licensing revenue.” *Id.* § 6.2.1.

82. Of course, a very broad obligation to search might dissuade potential patentees from entering the organization, but this does not constitute anticompetitive effect.

83. *See supra* note 76 and accompanying text.

pro-competitive justification by avoiding a potential bottleneck and contributing to the creation of a product that might not otherwise exist. Such rules bear some resemblance to other types of activity that have received substantial antitrust deference: (1) a blanket music license allowing the sale of rights to hundreds of copyrighted musical compositions, thereby reducing transaction costs⁸⁴ and (2) cross-license agreements and patent pools, which resolve patent bottlenecks among owners of blocking patents that otherwise could unilaterally prevent the practice of a product with multiple patented inputs.⁸⁵ Even the promulgation of specific licensing terms should be sanctioned. “Reasonable and nondiscriminatory” does not give precise notice of its content and does not prevent ex post holdup. More detail might. Moreover, such announcements have not, to date, appeared to foster collusion among patentees in the royalties they have charged.

C. PRO-COMPETITIVE BENEFITS OF IP-BASED SSOS

Intellectual property-based SSOS offer real pro-competitive justifications. Interoperability standards enable firms to use a common platform and enhance competition in the marketplace. They contribute to a greater realization of network effects and prevent buyers from being stranded in a product that loses the standards war.⁸⁶ And they clear bottlenecks and create markets that might not otherwise exist.⁸⁷ The IP rules of SSOS contribute to these benefits by reducing the likelihood of holdup by patentees.⁸⁸

84. See *Broad. Music, Inc. v. Columbia Broad. Sys.*, 441 U.S. 1, 5 (1979).

85. See, e.g., Letter from Joel I. Klein, Assistant Attorney General, Department of Justice to Gerrard R. Beeney, Esquire, Sullivan & Cromwell (Dec. 16, 1998), <http://www.usdoj.gov/atr/public/busreview/2121.htm> (DVD patent pool); Letter from Joel I. Klein, Acting Assistant Attorney General, Department of Justice to Gerrard R. Beeney, Esquire, Sullivan & Cromwell (June 26, 1997), <http://www.usdoj.gov/atr/public/busreview/1170.htm> (discussing the MPEG pool).

86. See Carl Shapiro, *Setting Compatibility Standards: Cooperation or Collusion?*, in *EXPANDING THE BOUNDARIES OF INTELLECTUAL PROPERTY: INNOVATION POLICY FOR THE KNOWLEDGE SOCIETY* 81, 88 (Rochelle Cooper Dreyfuss et al. eds., 2001).

87. This might be the case where consumers delay investing in a product in a network effects market until they are confident that such product will succeed and that they will not be stranded in the product that loses the race.

88. Moreover, the private resolution of such potential bottlenecks through SSOS is preferable to de facto standardization, because the presence of multiple firms in an SSO ensures that they “can compete to offer products

Further affirming the pro-competitive benefits of SSO rules, the industries in which SSOs have developed are those with the greatest potential for bottlenecks, patent thickets, and thwarted innovation. Mark Lemley has shown that SSOs have concentrated “in precisely those industries where the unconstrained enforcement of patents could be most damaging to innovation,” namely, computer software, Internet, telecommunications, and semiconductors.⁸⁹ In these industries, the presence of multiple patented inputs in products increases the risk of holdup. Just as ominous, the industries are marked by “cumulative innovation,” with one generation’s patented invention based on those of previous generations.⁹⁰ The clearing of patent thickets and fostering of cumulative innovation and new markets through SSOs offers perhaps the most powerful benefits for competition and innovation.⁹¹ Significant to begin with, the pro-competitive benefits of SSO rules are magnified even further in removing the potentially explosive landmines of the patent system.⁹²

These pro-competitive benefits are obvious when we return one last time to the paradigmatic example of a patentee announcing to the members of the SSO the terms of RAND licensing before the adoption of the standard. Even if the patentee and its competitors are members of the SSO and collectively possess market power, the activity should be upheld.⁹³ Anticompetitive effects on price and innovation will be minimal, and the pro-competitive justifications of preventing holdup and allowing standardized products to come to market

incorporating the standard” after selection, thereby increasing output and lowering prices. See Mark A. Lemley, *Antitrust and the Internet Standardization Problem*, 28 CONN. L. REV. 1041, 1064-65 (1996).

89. See Lemley, *supra* note 4, at 1954.

90. See Suzanne Scotchmer, *Standing on the Shoulders of Giants: Cumulative Research and the Patent Law*, 5 J. ECON. PERSP. 29, 29 (1991).

91. For arguments that innovation is the most important economic efficiency and should count as the most powerful pro-competitive justification, see Michael A. Carrier, *Resolving the Patent-Antitrust Paradox Through Tripartite Innovation*, 55 VAND. L. REV. (forthcoming 2003); Michael A. Carrier, *Unraveling the Patent-Antitrust Paradox*, 150 U. PA. L. REV. 761, 800-15 (2002).

92. The presence of SSOs in industries with the greatest potential for bottlenecks warrants antitrust deference in a way that deference on account of the balancing of “competing interests” the authors claim is undertaken by SSOs does not. See Teece & Sherry, *supra* note 1, at 1987.

93. This example assumes an open SSO. For the dangers of closed SSOs excluding competitors, see *supra* notes 80-81 and accompanying text.

are significant, especially in industries that would otherwise be subject to patent thickets and holdups. Adherence to platitudes of “reasonable and nondiscriminatory” licensing does not mean much where the details are left vague and are the subject of dispute after the standard has been adopted. The clarity of SSO rules is not used to foster collusion, price fixing, or boycotts, but rather to eliminate ambiguity and prevent holdups at the point where the patentee has significant leverage. For these reasons, antitrust should defer to nearly all SSO rules restricting IP.

CONCLUSION

Teece and Sherry are correct that standard-setting activity is beneficial and that antitrust cannot have more than a limited role in policing the IP rules of SSOs. But this conclusion can be reached without resort to notions of one-size-fits-all antitrust, an overriding objective of speed, and the relative influence of IP owners vis-à-vis IP users in SSOs. It can comfortably be grounded in the heart of antitrust: in the lack of significant anticompetitive effects and in the presence of powerful pro-competitive justifications. Although there is a role for antitrust in the analysis of SSO rules, long-settled antitrust jurisprudence dictates that it is only a limited role.

