**FRAND’s Forever: Standards, Patent Transfers, and Licensing Commitments**

**Jay P. Kesan**[[1]](#footnote-1)\* **and Carol M. Hayes**[[2]](#footnote-2)\*\***, University of Illinois at Urbana-Champaign**

**TABLE OF CONTENTS**

[I. INTRODUCTION 3](#_Toc349490133)

[II. STANDARD ESSENTIAL PATENTS AND SSO POLICIES 12](#_Toc349490134)

[A. Essentiality 13](#_Toc349490135)

[B. Requirements Imposed by SSOs Prior to Standard Adoption 18](#_Toc349490136)

[C. Highlighting FRAND Problems – A Hypothetical 20](#_Toc349490137)

[D. SSOs and IPR Policies 27](#_Toc349490138)

[i. IPR Policies and Patent Transfers 31](#_Toc349490139)

[E. Transparency and Assignment of SEPs 33](#_Toc349490140)

[III. STANDARDS, LITIGATION, AND LEGAL THEORIES 37](#_Toc349490141)

[A. Litigation over FRAND commitments 39](#_Toc349490142)

[B. The Law of FRAND commitments and Transferability 43](#_Toc349490143)

[i. Patent Theory 44](#_Toc349490144)

[1. Patent law cases 48](#_Toc349490145)

[2. Insufficiency of patent law to address FRAND problems 50](#_Toc349490146)

[ii. Antitrust and Unfair Competition 51](#_Toc349490147)

[1. Antitrust and unfair competition cases 52](#_Toc349490148)

[2. Insufficiency of antitrust to address FRAND problems 57](#_Toc349490149)

[iii. Contract 60](#_Toc349490150)

[1. Contract cases 61](#_Toc349490151)

[2. Litigation over FRAND commitments--Transferability 66](#_Toc349490152)

[a. Transferability of FRAND commitments in the EU 67](#_Toc349490153)

[3. Formal contract law and the FRAND problems 68](#_Toc349490154)

[4. Applying detrimental reliance to the FRAND problems 73](#_Toc349490155)

[iv. Property 75](#_Toc349490156)

[IV. FRAND COMMITMENTS AND THE LAW OF TANGIBLE PROPERTY 77](#_Toc349490157)

[A. Analyzing a Property Approach to FRAND commitments 78](#_Toc349490158)

[i. Licenses as Property 78](#_Toc349490159)

[ii. Hohfeldian Approaches to Jural Relations and the Intersection of Property and Contract 80](#_Toc349490160)

[B. Analogizing to the Law of Servitudes 88](#_Toc349490161)

[i. Servitudes and Transfers 91](#_Toc349490162)

[ii. Servitudes and Essentiality 94](#_Toc349490163)

[iii. Servitudes and the Member-Nonmember Question 95](#_Toc349490164)

[iv. Servitudes and After-Acquired Patents 96](#_Toc349490165)

[v. Invalidating Servitudes 96](#_Toc349490166)

[vi. Adopting a Servitude Doctrine 97](#_Toc349490167)

[V. FRAND COMMITMENTS, INJUNCTIONS, AND LIABILITY RULES 101](#_Toc349490168)

[A. Injunctions After *eBay v. MercExchange* 102](#_Toc349490169)

[B. Property Rules and Liability Rules 105](#_Toc349490170)

[C. ITC Exclusion Orders 109](#_Toc349490171)

[VI. CONCLUSION 111](#_Toc349490172)

1. INTRODUCTION

Not all wars involve heavy munitions. Some wars are fought with court filings. The smartphone patent wars are being fought to see who will dominate an increasingly valuable market. According to a study by Nielsen in the summer of 2012, over fifty-five percent of mobile subscribers in the United States own smartphones.[[3]](#footnote-3) And the demographic that is acquiring smartphones keeps getting younger. Nielsen further indicates that seventy-four percent of young adults between twenty-five and thirty-four years old own a smartphone, and fifty-eight percent of American teenagers, aged thirteen to seventeen, own a smartphone.[[4]](#footnote-4) This is a battle for profits, but more than that, this is a battle for long term customers that are starting to use sophisticated technologies at younger and younger ages.

But the current patent war is also broader than smartphones. The year 2012 saw a number of new developments in patent litigation over smartphones and related technologies. This includes disputes over the 802.11 wireless standards, or Wi-Fi,[[5]](#footnote-5) without which many smartphones would just be phones and many modern homes would have Cat-5 cables snaking from room to room to allow gaming consoles, laptops, and other devices to share the same network connection. These are not patents on technologies that only a small subset of the population uses. This patent war involves everyday technologies that many of us take for granted, from smartphones to video game consoles to streaming video over the Internet.

In August 2012, Apple successfully obtained a jury award against Samsung in the amount of $1 billion, but the court later denied Apple’s request for a permanent injunction against Samsung.[[6]](#footnote-6) In November 2012, Nokia began filing in courts around the world to enforce a Swedish arbitration decision declaring that Research in Motion, the makers of Blackberry smartphones, must reach a new licensing agreement with Nokia for wireless technology patents or else stop selling Blackberry products that use Wi-Fi.[[7]](#footnote-7) In May 2012, Motorola successfully obtained an injunction against Microsoft in a German court, but in September 2012, the Ninth Circuit ruled that the injunction was not self-enforcing.[[8]](#footnote-8) And these are just three examples of disputes between large companies that actually practice the patents in issue. A discussion of patent assertion entities (PAE),[[9]](#footnote-9) which are often referred to disparagingly as “patent trolls,” is outside the scope of this article, but they too have sought hundreds of millions of dollars in royalties from the deep pockets of smartphone giants.[[10]](#footnote-10)

There is much criticism of patent litigation and the potential effects it can have on innovators,[[11]](#footnote-11) but David Kappos, the former Director of the United States Patent and Trademark Office (USPTO) stated recently that the smartphone patent wars are themselves a sign that the U.S. patent system works to promote innovation.[[12]](#footnote-12) Regardless of which side has a more persuasive argument, the interplay between law, technology, and society is abundantly clear. This is now a high technology world, shaped by computing, networking, and communications technologies. Many of these technologies are protected by the intellectual property laws of the United States, including patent law under Title 35 of the United States Code. Congress’s authority to regulate patent law stems from the Constitution, which empowers Congress to enact laws to “promote the Progress of Science and the useful Arts.”[[13]](#footnote-13) Thousands of innovations over the last half-century have come together to shape modern computing. Supporters of modern intellectual property law attribute many of these innovations to the protections afforded inventors under patent law.[[14]](#footnote-14)

Inventors that successfully obtain a patent are granted a legal monopoly for the life of the patent, which is currently twenty years from the first submission of the application.[[15]](#footnote-15) During this patent period, the inventor who retains ownership of the patent can recoup her investment, with two main options available to do so: by being the only person allowed to practice the patent, or by licensing the patent to others and collecting royalties. Hovencamp notes that organizations may also obtain patents for defensive motives, such as allowing the organization to practice inventions in a way that minimizes the threat of patent litigation.[[16]](#footnote-16)

Modern innovation typically builds on earlier innovation, in a way that Professor Carl Shapiro likens to standing atop a pyramid rather than, as Newton originally described the progress of science, standing “on the shoulders of giants.”[[17]](#footnote-17) It logically follows that many modern inventions may rely to some extent on technologies that are still covered by patents held by others.[[18]](#footnote-18) Some scholarship indicates that in areas where innovation is cumulative, strong intellectual property (IP) rights can impede innovation.[[19]](#footnote-19)

In this IP-centric context, patent litigation typically follows a fairly predictable pattern. A patent holder may notify the infringer that one product infringes on his technology and demand royalties. The patent holder may then file suit against the alleged infringer if the parties are unable to reach an agreement. The patent holder’s goal in an infringement action may be damages, often in the form of court-ordered royalty payments, or an injunction to prevent the defendant from practicing the patent holder’s invention.[[20]](#footnote-20) Golden notes that if the patent holder thinks he can obtain an injunction, the patent holder might also use the potential injunction as leverage to obtain a settlement for a higher royalty payment than the infringer would have been willing to pay otherwise.[[21]](#footnote-21) The alleged infringer is likely to defend by arguing that either the asserted patent was invalid, or that if it was valid, there was no infringement.[[22]](#footnote-22)

The complications arising from the aggregate nature of innovation are compounded by the modern need for technology, especially communication technology, to be interoperable. The ability of gadgets to interact with each other is of paramount importance in this age where information is exchanged across thousands of miles. Device interoperability gives consumers more options in how they use technologies. Additionally, the more interoperable technologies are, the greater the network effects – that is, the positive effects that emerge as more people adopt the technology.[[23]](#footnote-23) Network effects are especially prevalent in the Internet, computer, and telecommunications (ICT) industries. This is in part because the cost of creating the technology decreases as more users adopt the technology, and in part because, as Merges and Kuhn observe, innovations in these industries are the most effective when large numbers of people adopt them.[[24]](#footnote-24)

In the ICT industries, the establishment of standards is important for the twin goals of achieving higher levels of interoperability and obtaining greater network effects. Sometimes, an industry may establish de facto standards through wide usage,[[25]](#footnote-25) but it is currently more common for standard setting organizations (SSOs) to formally establish standards through detailed processes.[[26]](#footnote-26) SSOs are generally voluntary collectives where representatives from multiple private companies, who are often competitors of each other, work together to establish technology standards.[[27]](#footnote-27)

Because of the aggregate nature of innovation and the prevalence of patents in the ICT industries, many standards set by SSOs implicate proprietary technologies that are still covered by patents.[[28]](#footnote-28) This raises the possibility of abuse, either through patent ambush or patent holdup. Patent ambush in the standards context might arise where a patent holder learns that a proposed standard implicates claims covered by his patent or patent application, but does nothing either to inform the SSO or to assert his rights until after the standard has been adopted. On the other hand, Merges and Kuhn describe patent holdup as arising when a patent holder refuses to license a relevant patent on expected terms, thus “holding up” the progress of disseminating a new technology, regardless of whether the SSO was aware of the patent holder’s interest when creating the standard.[[29]](#footnote-29) Chien and Lemley note that patent holdup is an especially pernicious threat in the case of multicomponent products where the claims of the asserted patent cover only a small part of the product.[[30]](#footnote-30) Thus, the importance of protecting IP rights must be balanced against preventing abusive tactics in order to protect consumers, competition, and innovation in these industries.[[31]](#footnote-31)

SSOs, aware of the potential abuse of patents in the context of standards, often adopt intellectual property rights policies (IPR policies) aimed at curbing such abuses to remove potential barriers to standard adoption. For instance, to facilitate the adoption of standards, SSOs often require patent holders to agree to license relevant patents on fair, reasonable, and nondiscriminatory (FRAND) terms. Layne-Farrar, Padilla, and Schmalensee suggest that FRAND commitments are intended to curb possible attempts to exploit the increased market power that comes with owning a patent that is used in a standard.[[32]](#footnote-32)

However, companies in high technology industries often possess large patent portfolios, making it difficult for the company representatives who are involved with the standard setting process to know if the company owns relevant patents. Additionally, a patent may be bought and sold multiple times during its lifetime, and these patent transfers may complicate FRAND commitments. Patent transfers in the standards context raise two important questions related to the patents at issue and the implicated parties: 1) has the new patent holder obtained a patent covering a technology that is subject to a FRAND commitment; and 2) is the new patent holder a party that will be bound by a FRAND commitment? The second question is further complicated by issues of transparency in patent transfers.

FRAND commitments are awash in case law and court decisions but are bereft of a discussion of its theoretical underpinnings. This article fills that void by developing a conceptual framework for understanding FRAND commitments using property theory. This Article focuses on FRAND commitments and five problems arising repeatedly with respect to these agreements: 1) whether the FRAND obligation transfers to subsequent assignees of the patent; 2) whether nonmembers of the SSO should have the same standing as SSO members to enforce FRAND commitments; 3) whether FRAND commitments should apply to patents acquired after the making the FRAND commitment (i.e., after-acquired patents); 4) how to understand the word “essential” in the phrase “standard essential patents” (SEPs); and 5) whether the FRAND commitment should impact remedies available in patent litigation, either from the perspective of the patent owner or the beneficiary of the FRAND commitment.

We argue that as a policy matter, the obligations of FRAND commitments should be binding on assignees and in the case of after-acquired patents, and that nonmembers should have the same right to enforce a FRAND commitment as members of the SSO. To understand essentiality, we first provide a new model for conceptualizing the different versions of essentiality in the standard-setting context, and use this model to describe the optimal treatment of essentiality in the context of standards. A sufficiently detailed IPR policy would be sufficient to address essentiality issues, protect the interests of nonmembers, and cover the situation of after-acquired patents, but analysis of alternative legal theories is necessary to read a FRAND commitment as “running with the patent.”

As to the remedies question, we argue that patent owners should be precluded from seeking injunctions against standard adopters when the alleged infringement is of a standard essential patent. In our view, the FRAND commitment should be understood as a statement that a reasonable royalty would be sufficient to compensate for infringement. Thus, by making a FRAND commitment, the patent owner converts a property rule, under which they could enforce their right in the patent through an injunction, into a liability rule, under which a third party licensee can practice the patent as part of the standard, provided he pays compensation.

To inform our analysis, we focused on four areas of law: patent law, antitrust law, contract law, and property law. To our knowledge, this article represents the first attempt at applying U.S.-based property law and theory to the issue of FRAND commitments. Our property theory for characterizing a FRAND commitment is that a FRAND commitment creates an encumbrance on a SEP, similar to a servitude in real property law, that “runs with the patent” to subsequent assignees. To establish this, we first have to show that the potential licensee possesses an entitlement. Several courts have concluded that FRAND commitments create a duty to negotiate in good faith. Drawing on a Hohfeldian approach to jural relations, where a right is the correlative of a duty, we note that saying that a patent owner has a *duty* to negotiate with potential licensees is the equivalent of saying that the potential licensees have a *right* to engage in good faith negotiations with the patent owner.

Having established that the potential licensee has a legal interest, we then considered whether this right would be more accurately characterized as *in personam* or *in rem*. Building on a Hohfeldian framework and the work of Merrill and Smith, we further argue that the FRAND commitment has traits of both property and contract, and thus contract law alone is not enough for understanding the full range of issues raised by these commitments. With the potential licensee’s legal interest being characterized as having flavors of a property interest, we narrowed our focus and examined the specific application of principles of the law of servitudes to the FRAND commitment.

This article is organized as follows. In Section II, we will introduce some of the major issues that arise in the context of interoperability and standards, with a focus on the presence of FRAND commitments.[[33]](#footnote-33) This section includes a detailed hypothetical to illustrate what we view as some of the most significant potential issues. In Section III, we will analyze how the law may apply to FRAND commitments under several different theories, how some of these issues have been treated by courts thus far, and how current theories apply to the problems raised in our hypothetical. In Section IV, we expound on a new theory based on property law that FRAND commitments can be viewed as creating an interest analogous to a servitude in real property. In Section V, we examine the issue of whether the owners of SEPs should be able to obtain injunctions against the implementers of standards for which the SEP owner made a FRAND commitment.

1. STANDARD ESSENTIAL PATENTS AND SSO POLICIES

*"We take this kind of standardization for granted, but without standardization, there would be no mass production or mass communication. Which is to say, without standardization there wouldn't be a modern economy.”[[34]](#footnote-34)*

Above, we noted the importance of interoperability in modern computing and the information economy. As Merges and Kuhn note with respect to the software industry, one way that a particular industry can encourage interoperability is by establishing technology standards.[[35]](#footnote-35) In the ICT industries, standards are often developed by SSOs. An SSO typically consists of industry actors who work together to determine the optimal features and functions to facilitate interoperability. Speegle notes that consumers and industry both benefit from an efficient use of the standard setting process, because the resulting technologies are more interoperable and are more quickly adopted by consumers.[[36]](#footnote-36)

Once a standard is set, however, standard adopters are locked in, and switching costs are often very high if new circumstances arise – for example, if a patent owner starts suing every company that makes products that comport with the standard.[[37]](#footnote-37) It is likely to be difficult to anticipate where these possible abuses might come from. A company may seem suspicious if it acquires a large number of patents, but the company might be acquiring these patents for defensive purposes, with no intention to assert them in litigation unless necessary. Similarly, Merges and Kuhn warn that post-standard patenting may be a sign of bad faith strategic rent-seeking, but a study by Layne-Farrar indicates that less than a third of patents obtained after a standard was finalized were opportunistic.[[38]](#footnote-38) But if patent holdup does occur, this can increase the cost of the technology for consumers and also cause significant delays and inefficiencies in the standard setting process.[[39]](#footnote-39)

One of the most pervasive issues in the SSO context is that FRAND is rarely if ever defined in advance of a conflict. SSOs generally do not get involved with setting licensing terms, which Layne-Farrar, Padilla, and Schmalensee note may be in part due to the possible antitrust concerns if an SSO existed as an organization of competitors that also discussed pricing strategies.[[40]](#footnote-40) Instead, SSOs adopt vague language requiring fairness and reasonableness and then punt the responsibility to the courts to determine what license terms would be fair and reasonable.[[41]](#footnote-41) The courts and the parties in the conflict then may apply economic models or legal tests to determine the value of the patent’s contribution to the standard or the whole product, and this type of approach may be taken by scholars as well.[[42]](#footnote-42)

* 1. Essentiality

Above, we noted that one of the major questions that arises in the context of FRAND commitments and patent transfers concerns which patents the agreements apply to. This question often turns on the concept of essentiality. Many times, standards will rely on proprietary technologies still under patent, often called SEPs. The IPR policies of SSOs often refer to SEPs as being covered by FRAND commitments, and require SSO members to disclose SEPs that the member owns. When disclosed, the term “declared essential patents” may be used to describe these patents, indicating the unverified nature of the patent’s essentiality.[[43]](#footnote-43)

But what are SEPs? Often, SEPs are characterized as technologically essential patents, and this technological essentiality is tied closely with the interoperability focus of the standard. However, the concept of essentiality encompasses many ideas, and discussions of essentiality sometimes use the same term to refer to different ideas. Lemley warns that an understanding of essentiality that is too broad threatens to complicate the process of IP disclosures,[[44]](#footnote-44) but in our view an understanding that is too narrow also threatens to undervalue certain technologies. In this section, we aim to explain and clarify some of the possible meanings of essentiality in the context of standards.

After discussing essentiality with industry members, we posit that there are three primary possible types of essentiality. A patent that is relevant to a standard may be viewed as essential in three main ways: 1) core essential, where the patent is technologically essential to a core function of the standard; 2) non-core essential, where the patent is technologically essential to an optional function of the standard; and 3) commercially essential, where the patent’s claims cover an option that is not technologically essential to the standard, but other factors exist making the patent commercially essential. A standard may also discuss technologies covered by “non-essential” patents, where the patent claims of a single patent may describe one of several alternatives for implementing the core or non-core features described by the standard.

The industry differs on how to define commercial essentiality, with at least three different views, which we have characterized as broad, intermediate, and narrow. Under the broad definition, a technology would be commercially essential when nearly unanimous market demand for the option renders it necessary for competitors to include that option in order to compete. The intermediate view of commercial essentiality emphasizes technologies that enable interoperability, which developers of complementary technology will need to use in order to make their products compatible. Thus, while the broad view might view patented features as commercially essential based on their popularity in the market, the intermediate view relies on popularity of a technology that is tied to interoperability. The narrow definition, in contrast, would limit commercial essentiality to non-essential patents that are nevertheless included within the standard. There are two main options for a non-essential patent to be considered a commercially essential patent: 1) the alternative technologies would be too costly, leaving only one technology that is commercially feasible; or 2) one of the options is preferred over others by such a great margin that it is not commercially feasible to instead implement one of the alternatives.

Opinions vary as to whether commercially essential patents should be treated the same as technologically essential patents. Lemley argues that FRAND commitments should only apply to essential patents, reasoning that allowing FRAND commitments to apply to non-essential patents would “complicate the disclosure and licensing processes” and could result in members disclosing patents with the twin goals of avoiding nondisclosure liability and obtaining royalty payments.[[45]](#footnote-45) But Lemley also refers to patents that are “necessary as a practical matter” being essential, a fairly broad wording that suggests that he might view essential patents as including commercially essential patents, not just technologically essential patents. It is unclear, however, whether Lemley would adopt a broad, intermediate, or narrow characterization of commercial essentiality. On the other hand, Professor Shapiro defines essential patents as patents that are “necessary to comply with [the] standard.”[[46]](#footnote-46) This narrower wording suggests that Professor Shapiro would view the term “essential patents” as being limited to technologically essential patents. If this “necessary to comply” language is taken literally, Shapiro’s position might also be read as limiting technological essentiality to core essential patents. SSOs also vary in how they address the question of technologically versus commercially essential patents. Very few discussions on this topic, however, consider the problem of how to address the possibility that non-essential patents could later become commercially essential, and whether these newly essential patents should be treated as subject to earlier FRAND commitments.

Whether a technology is considered a SEP is largely determined by the SSO’s IPR policy. Commercially essential patents are only considered SEPs by a minority of SSOs. The IEEE-SA is one of the SSOs that includes commercially essential patents as SEPs, and the IEEE-SA’s definition adopts the narrow view of commercial essentiality that only covers otherwise non-essential technologies that were already mentioned in the standard.[[47]](#footnote-47) Standards are typically set by technical professionals, so when an SSO refers to a patent being “essential,” the SSO likely means that it is technologically essential unless the IPR policy explicitly refers to commercial essentiality. Industry indications suggest that SSOs typically view technological essentiality as including both core essentiality and non-core essentiality.

In our view, SSOs should be permitted to consider commercially essential patents as SEPs, but should make it explicit in their IPR policy if they do so. In the absence of an explicit provision, it may be appropriate to limit the term “essential patent” to one or both types of technological essentiality. If commercially essential patents are considered to be SEPs, it is an open question as to whether a narrow, intermediate, or broad definition of “commercially essential” is more appropriate. Adopting the narrow definition of commercial essentiality may be the most desirable. The narrow definition encourages innovation above the standard, since any such improvements would be treated as proprietary technologies instead of being swallowed by the standard. The biggest problem with the broad definition of commercial essentiality is that there is no ex ante determination – the more successful the improvement, the more likely the improvement will be declared to be standard essential at some unknown future time, thus reducing the value that an innovator can realize by improving on a standard. That said, we recognize that the definitional framework for commercial essential patents can be sidestepped ex post by negotiating the appropriate royalties for the patents included in the broadest notion of commercial essentiality.

One aspect of the smartphone war concerns the use by competitors of some of the patented design elements of Apple products, like slide-to-unlock. A broad definition of commercially essential might characterize this feature as commercially essential if nearly all smartphone users demand it. Slide-to-unlock is an example of a user interface technology that may be very popular, but has little if anything to do with the underlying functionality of a smartphone. Google takes an intermediate approach to commercial essentiality, arguing that some popular technologies are so central to interoperability and necessary for complementary technologies that they should be viewed as de facto standards, with relevant patents treated as SEPs.[[48]](#footnote-48) The IPR policy of IEEE-SA provides an example of the narrow view of commercial essentiality, defining an “essential patent claim” as a claim that “was necessary to create a compliant implementation of either mandatory or optional portions” of the standard, for which there is “no commercially *and* technically feasible non-infringing alternative.”[[49]](#footnote-49)

Even if a clear definition of essentiality is adopted, however, that may not resolve all of the problems that companies have when determining whether they own patents that should be declared as essential to the SSO. This determination requires the SSO members to search through all of the patents that their respective companies own, which some compare to looking for a needle in a haystack.[[50]](#footnote-50) But we expect that if this is a known variable, the above characterizations of essentiality will greatly assist in the process of categorizing known patents into the proper type of essentiality. It is to the difficulty of meeting SSOs’ requirements that we now turn.

* 1. Requirements Imposed by SSOs Prior to Standard Adoption

SSOs generally adopt IPR policies that set forth the members’ obligations with regard to intellectual property implicated by the standard. During the standard setting process, a board or committee may request that members disclose relevant patents, and may also seek commitments from patent holders to either license these patents on royalty-free (FRAND-RF) or FRAND terms to anyone who requests a license.[[51]](#footnote-51)

Depending on the member’s business model, however, requiring the disclosure of all potential SEPs might be very costly and burdensome. A member company with a large patent portfolio, for instance, might have hundreds of patents that are potentially relevant to a standard that is being developed. In such a situation, the member would have to have someone read through each claim of every potentially relevant patent to identify patents that *might* be essential to a standard that has not yet been finalized or adopted. Having attorneys review all of these patents would likely be cost prohibitive, but the main alternative to doing so would be to assign the task to experienced technical professionals who are familiar with the proposed standard, thereby taking these individuals away from their normal responsibilities. Thus, companies may have an incentive to not undertake expensive investigations of their own patent portfolios for the purpose of disclosing specific patents as potential SEPs, but such companies may be more willing to make a blanket commitment to the SSO to license any SEPs on FRAND terms without identifying the SEPs individually. The IPR policy of the ITU is seemingly written with this situation in mind. In Section 7, concerning assignment and transfer of patent rights, the ITU requires members to make reasonable efforts to secure an assignee’s agreement to be bound by commitments that the patent owner *reasonably believes* that they made to the ITU.[[52]](#footnote-52) Thus, the question becomes whether there is a reasonable belief that the transferred patent was covered by this broad commitment.

FRAND commitments, which allow patent holders to seek monetary royalties as compensation for the use of their technologies, tend to be more common than FRAND-RF agreements, which do not allow for monetary royalties. Many SSOs allow patent owners to choose between committing to FRAND-RF licensing and FRAND licensing. FRAND commitments are generally between the patent holder and the SSO. However, apart from the amorphous language requiring that licenses be fair, reasonable, and non-discriminatory, the SSO generally provides no guidance for what terms will be acceptable.[[53]](#footnote-53) It is also not always clear from the language of the IPR policy if the policy covers: 1) core essential and non-core essential patents; 2) only core essential patents; or 3) both types of technologically essential patents as well as commercially essential patents. Even if the policy specifically enumerates commercial essentiality, parsing the language will likely be necessary to determine whether the IPR policy refers to broad, intermediate, or narrow commercial essentiality.

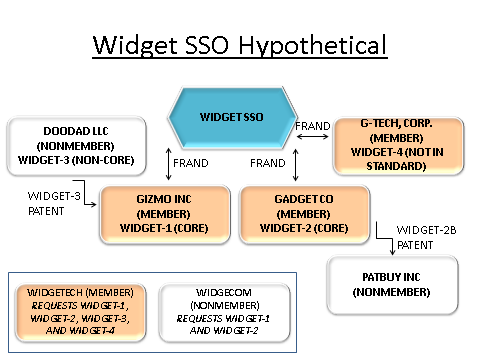
Standards are very important in industries with large network effects. When a standard is widely adopted, small companies can compete with large companies on a national level, or even a global level, by innovating and creating a new technology that is nonetheless interoperable with technologies already broadly accepted and used by the public. Interoperability can aid in the adoption of the new technology by easing the transition. Thus, standards can be used to support a competitive environment, but misuse of SEPs can interfere with this goal. Ideally, SSOs would effectively address potential problems in the standard setting process *ex ante*, and parties that own a SEP could be trusted to not take advantage of standards to demand a higher royalty from competitors than the individual patent would warrant on its own. The patent litigation of the last few years, however, suggests that this may be an area in need of policy oversight.

* 1. Highlighting FRAND Problems – A Hypothetical

There are several major problems with patents and standards that will become more visible in the near future, and there is a dire need to determine the optimal legal theories to use in resolving these problems. To illustrate the issues, consider the following hypothetical situation.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| FRAND COMMITMENTS IN THE WIDGET WORLD  The Widget is a technology that is growing in popularity because of its ability to help people communicate. However, there are many ways to make a Widget. The Widgets can be designed in a number of sizes, or using a number of different technologies. Widgetech makes one Widget that relies on combining a five-inch Widget-1A with a Widget-2C that transmits data at a frequency of 120 MHz. It currently licenses the patent for the five-inch Widget-1A from Gizmo Inc, and holds the patent for the Widget-2C used in its Widget. Widgecom makes another Widget that relies on combining a three-inch Widget-1D with a Widget-2B that transmits information at a frequency of 20 MHz. Widgecom licenses the patent for the three-inch Widget-1D from G-Tech, Corp. and the patent for the Widget-2B from HF Gadget, Inc.  It has become obvious that the Widget technology has the potential to be very beneficial for consumers, but currently, customers of Widgetech cannot change to Widgecom’s service, and vice versa, because the two Widget technologies are too different. Because Widget technologies are not uniform, most people have elected to instead continue using Wadgets, an older technology that doesn’t work as well or have as many features as the Widget, although the Wadget does allow content to be broadcast to a television. The Widget industry forms an SSO with the intent of developing a standard for widget technology. Widgetech, Gizmo Inc., G-Tech, Corp., and HF Gadget, Inc. are all members of this SSO. Widgecom, however, does not join the SSO. The Widget SSO focuses on the current specifications used by Widgetech and Widgecom to determine what the standard should be, and thus has four different options for a Widget specification.   |  |  | | --- | --- | | Widget-1A and Widget-2C | Widget-1A and Widget-2B | | Widget-1D and Widget-2B | Widget-1D and Widget-2C |   After evaluating the different options for Widgets, the five-inch Widget-1A and a 20 MHz Widget-2B are eventually adopted as essential elements of the Widget standard, and Gizmo Inc. and HF Gadget both disclose to the SSO that they have patents on these respective technologies. The Widget SSO also addresses the possibility that consumers may want to use the Widget to broadcast to their televisions, so the organization notes that if a Widget producer wishes to make their Widget compatible with this purpose, the producer should use the Widget-3 technology, which is covered by a patent owned by Doodad LLC. Gizmo Inc’s Widget-1A and HF Gadget’s Widget-2B are both core essential patents for the Widget, and the Widget-3 is a non-core essential patent. Doodad LLC is not a member of the Widget SSO, but it is a member of the Wadget SSO, which adopted their Widget-3 patent as a core essential patent.  Upon the SSO’s request, all of the SSO members (including Gizmo Inc., G-Tech Corp., and HF Gadget) sign an agreement with the SSO, promising to license their relevant patents on FRAND terms to parties that wish to adopt the standard. Shortly after the standard has been finalized, Gizmo Inc. buys Doodad LLC’s patent portfolio, and HF Gadget sells its patent portfolio to PatBuy, Inc. PatBuy is a patent assertion entity that relies on patent royalties for most of its revenue.  A year after the standard has been set, the market for Widgets has grown, and consumers are almost universally demanding that Widgets include the capability of broadcasting content to televisions, thus retaining one of the benefits of the Wadget. The Widget-3 patent, while initially a non-core essential patent, thus may also now be a commercially essential patent under the narrow definition thereof, even though it was not commercially essential when the standard was announced.  Though none of their technologies were included in the standard, G-Tech, Corp. has entered the standard-compliant Widget market, having licensed the Widget-1A and Widget-2B included in the standard. In addition, the G-Tech Widget also includes a patented technology that they call Widget-4, whereby the product is activated by waving the Widget in the air with a clockwise circular motion, and turned off by waving it in the air with a counterclockwise circular motion. The motion sensing activation mode has proven so popular with consumers that every Widget owner wants to own a Widget with Widget-4 capabilities, and some market research indicates that 95% of current Widget consumers will not make a future purchase of a Widget if the Widget does not have Widget-4.  After spending the better part of the last year making their Widget production capable of producing Widgets that adhere to the new standard, Widgecom and Widgetech start to produce Widgets that comport with the standard. When the standard was announced, Widgecom sent a letter requesting a license for the Widget-1A patent to Gizmo Inc., and a letter indicating an intent to continue licensing the Widget-2B patent to HF Gadget. Similarly, Widgetech sent a letter to Gizmo Inc. indicating an intent to continue licensing the Widget-1A patent, and a letter to HF Gadget, Inc. requesting a license to practice its Widget-2B patent. Widgetech also decides that it wants to include a feature in their widget to allow broadcasting to televisions, so it sends a letter to Doodad LLC to request a license for the Widget-3 patent. Additionally, Widgetech adds Widget-4 capability to its Widget, and sends a letter to G-Tech to request a license. Widgecom’s attempt to license from Gizmo Inc. reaches a stalemate, and an acceptable royalty payment cannot be determined. Widgetech and Widgecom receive a letter from HF Gadget stating that they no longer hold the Widget-2B patent, but the letter does not say who the patent was assigned to. Widgetech receives a similar letter from Doodad LLC concerning the Widget-3 patent. G-Tech responds to Widgetech’s request with a cease and desist letter, threatening litigation if Widgetech infringes on the Widget-4 patent.  Gizmo Inc. sues Widgecom for infringing its Widget-1A patent, and sues Widgetech for infringing its Widget-3 patent. Gizmo Inc. is seeking an injunction to prevent Widgetech and Widgecom from using these patents in their products.  PatBuy sues Widgetech and Widgecom for infringing its Widget-2B patent, and is seeking a very high royalty of 50% of the sale price of each unit sold that infringes the claims of the Widget-2B patent. Widgecom produces proof of its existing license of the Widget-2B patent, and the court quickly dismisses PatBuy’s claim based on well-established law that preexisting licenses are binding against subsequent patent owners.  G-Tech sues Widgetech for infringing its Widget-4 patent, and seeks an injunction against sales of Widgetech products that include Widget-4.  Widgetech and Widgecom both argue that even in cases where a license did not already exist, all of the patent owners are obligated to license these patents on FRAND terms, and thus the court should assist the parties in setting the terms of the license agreements. |

The issues in this hypothetical can be visualized using the chart shown below.



This hypothetical illustrates several problems. A court evaluating the following problems is likely to first refer to the IPR policy of the Widget SSO. For our purposes, assume that the Widget SSO’s IPR policy requires FRAND commitments and the disclosure of SEPs, but is vague about essentiality.

1. Application to Nonmembers. Widgecom is not a member of the Widget SSO. Gizmo Inc. asserts that when it made its FRAND promise to the SSO, this promise only applied to SSO members. Can Widgecom benefit from the promise and obtain a license for the Widget-1A even though it is not a member of the Widget SSO?
2. Widget-3, Essentiality and After-Acquired Patents. The Widget-3 patent is now held by Gizmo Inc., but it was acquired after Gizmo made the FRAND promise to license its patents. This situation contains two distinct problems with their own complications. At their cores, these two problems focus respectively on whether the FRAND commitment applies to a particular *patent*, and whether the FRAND commitment applies to a particular *patent holder*.
   1. The first problem concerns the Widget-3 patent’s status as a non-core essential patent that now may also be commercially essential, and this problem contains three parts.
      1. First, the parties will need to look at the IPR policy of the Widget SSO to determine if non-core essential patents are considered SEPs. If the answer is yes, the FRAND commitment will apply to this patent, and the analysis for this problem ends here.
      2. If the above answer is no, the parties then ask whether the Widget SSO considers commercially essential patents to be SEPS. If that answer is no, the analysis ends and the FRAND commitment does not apply to this patent.
      3. But if the answer to the second subpart is yes, that introduces the problem of a non-core essential patent becoming commercially essential. The parties will then need to analyze the Widget SSO’s IPR policy to determine the frame of reference for time – that is, does the IPR policy state that FRAND commitments apply to patents that were essential *at the time the standard was published*?
   2. The second problem focuses on whether the particular *patent holder* is bound by the FRAND commitment. This problem concerns the Widget 3 patent’s status as an after-acquired patent, which Gizmo Inc. acquired only after making the initial FRAND commitment. As a company that made a FRAND commitment to license Widget patents, is Gizmo Inc. bound by this agreement such that they have to license the Widget-3 patent on FRAND terms?
3. Broad View of Commercial Essentiality. G-Tech is a member of the SSO, and made a FRAND promise, but G-Tech’s Widget-4 patent was not included in the standard. However, the demand for Widget-4 capability is now very high. Should the FRAND commitment also apply to the Widget-4 patent such that G-Tech must license the patent on FRAND terms to Widgetech?
4. Transferability of FRAND commitment. PatBuy was not a member of the SSO, and did not make any FRAND promises. Does the FRAND commitment made by HF Gadget also bind PatBuy and limit the royalties that PatBuy can seek for the Widget-2B patent?
5. Remedies for Patent Infringement. Gizmo Inc. owns the Widget-1A patent, which is a core essential patent, and the Widget-3 patent, which is a non-core essential patent that may also be commercially essential. PatBuy owns the Widget-2B, a core essential patent.
   1. Is it consistent with Gizmo’s FRAND obligations to seek an injunction preventing Widgecom from using the Widget-1A patent? What about the Widget-3 patent? Is Gizmo’s request for an injunction to keep SSO member Widgetech from using the Widget-3 patent consistent with Gizmo’s possible FRAND obligations?
   2. Assuming that the FRAND obligations associated with the Widget-2B patent “ran with the patent” and bound PatBuy as a successor in interest, the court will have to determine if a demanded royalty of 50% of the sale price for each unit sold is “fair and reasonable.” This is fairly unlikely, but in the absence of a royalty agreement between the parties, the burden may be on the court to determine a royalty amount that would be consistent with PatBuy’s FRAND obligations.

Finally, as a policy matter, should there be a recordation requirement for assignments such that the assignments to Gizmo Inc. and PatBuy would have been required to be on file with the USPTO, making it easier for parties seeking licenses to identify the current patent owner? If these patents had been easier to track down, the party seeking a license could have made a formal, prompt request. Instead, Widgetech and Widgecom pushed forward with production of standard-compliant products to remain competitive, with the danger of patent litigation looming overhead, relying only on the earlier FRAND commitment to assure them that a license would be made available. Because the transparency issue will likely require government intervention, whereas the above issues could be addressed through government intervention *or* through voluntary collaboration by SSOs, we will briefly address this transparency issue in Section II.E.

* 1. SSOs and IPR Policies

In the hypothetical above, we intentionally omitted a detailed discussion of the Widget SSO’s IPR policy. This is because the IPR policies of SSOs often vary significantly. An SSO might, for example, require members to add their patent to the “patent pool,” which the SSO may then license to standard implementers as a package deal.[[54]](#footnote-54) This article proceeds on the assumption that FRAND commitments will remain more common than patent pool arrangements in the standard setting context. With the exception of the recordation issue, which will likely need specific regulatory intervention and which we examine in Section II.E, comprehensive language in the IPR policy could resolve each of the problems enumerated above.

The first major aspect of an SSO’s IPR policy is the approach that the SSO takes to licensing obligations. For our purposes, there are three main options: the SSO might request that members grant FRAND licenses; the SSO might establish a patent pool to which members can contribute; or the SSO might require patents to be licensed on royalty-free terms. Normally, patent pools are discussed as an alternative to an SSO model,[[55]](#footnote-55) though some SSOs like AVS also include a patent pool licensing option. Contreras proposes a “pseudo-pool” arrangement to mix the benefits of patent pools with the benefits of SSOs,[[56]](#footnote-56) but a true hybrid system as he proposes has not yet been adopted.

The effectiveness of each of the three existing options is influenced by the industries and the business models of the participants, and Devlin notes that FRAND-RF agreements could potentially lead to reduced innovation in some circumstances.[[57]](#footnote-57) Some SSOs also allow the patent holder to choose the type of licensing obligation that they will assume. For example, the IPR policy of China’s Audio and Video Coding Standard Workgroup (AVS) allows members of the subgroup developing a standard to select between the above three types of licensing obligations (FRAND, FRAND-RF, or participation in the patent pool).[[58]](#footnote-58) Under the AVS policy, if a member is not a member of the relevant subgroup when the standard is adopted, they have a fourth option in addition to the above three options: to not take on any licensing obligation. But if the patent owner takes on an obligation, it is in the public interest to make that promise be binding.[[59]](#footnote-59)

Second, SSOs that emphasize FRAND licensing vary among themselves as well. Most limit the policy to technologically essential patents while others allow the FRAND commitment to apply to commercially essential patents. Additionally, some SSOs limit the licensing obligation to members of the SSO while others use broad language to describe the parties that are entitled to FRAND licenses. To get a sense of the variation, Lemley analyzed the intellectual property policies of over forty standard setting bodies.[[60]](#footnote-60) Lemley categorized the SSOs according to: 1) whether the SSO had an IPR policy, and if so, what forms of IP were covered; 2) whether the SSO’s policy required disclosure of relevant patents; 3) whether the IPR policy addresses an obligation to search for relevant patents; 4) whether the SSO would permit the final standard to rely on proprietary technology (most said yes, though some qualified that technologies covered by IP rights would only be included if technologically necessary); and 5) what licensing provisions the IPR policies contained (e.g., FRAND-RF or FRAND).[[61]](#footnote-61)

Lemley’s data indicate that the IPR policies of SSOs vary significantly.[[62]](#footnote-62) One of the elements that a majority of the studied policies had was a disclosure rule, with twenty-four of thirty-six requiring members to disclose relevant IP rights.[[63]](#footnote-63) Layne-Farrar, Padilla, and Schmalensee note, however, that some firms view disclosure requirements as potentially harmful insofar as disclosing patents might reveal future technology strategies to competitors.[[64]](#footnote-64)

Lemley’s conclusions also underscore what he sees as an important function of SSOs and their IPR policies: providing private ordering to mitigate negative effects that IP rights seem to have on innovation in some industries.[[65]](#footnote-65) Lemley’s empirical work lays an important foundation for the study of the standard setting process. However, his work did not examine all of the facets of possible IPR policies, and a future study might aim at updating and expanding on Lemley’s findings in his 2002 study. For example, future research might evaluate: 1) the different approaches of SSOs to patent transfers, 2) whether the licensing provisions apply equally to members and non-members of the SSO; 3) whether the IPR policies define essentiality; 4) whether the IPR policies address after-acquired patents; and 5) whether the IPR policies attempt to limit remedies that patent owners can seek in litigation over SEPs.

In preparing this Article, we conducted a cursory overview of a small sample of IPR policies to get a sense of whether Lemley’s conclusions about nonuniformity are still valid over ten years later. We noted that SSOs generally give members wide leeway in management of their own IP. IEEE-SA, for example, requires members to submit Letters of Assurance indicating if the member owns any “Essential Patent Claims,” but explicitly states that the policy does not create a duty to conduct a patent search.[[66]](#footnote-66) Many SSOs also indicate a preference that patents be transferred subject to FRAND commitments,[[67]](#footnote-67) but SSOs also typically have a policy against getting involved in licensing matters.[[68]](#footnote-68) Very few, if any, SSOs retain any type of oversight over transfers of SEPs. Thus, even if the IPR policies of SSOs were made more uniform, SSOs themselves generally do not provide an effective enforcement mechanism for these policies. Because the transferability of FRAND commitments is a cornerstone of this paper, we turn now to a more detailed discussion of the approaches that four SSOs take to this question.

* + 1. *IPR Policies and Patent Transfers*

If an SSO specifically addresses transfers in its IPR policy, by agreeing to be bound by the terms of the SSO’s IPR policy, the member is agreeing to be bound by the SSO’s requirements for the transfer of intellectual property and FRAND commitments. To have any real force, however, IPR policies requiring patents to be transferred subject to FRAND commitments must either be combined with property-based approach that we propose in Section IV, or provide for harsh outcomes sufficient to deter the member from transferring the patent without obtaining the assignee’s consent to be bound by the FRAND commitment. We view IEEE-SA’s approach as a precursor to a full property-based approach to FRAND commitment transferability, because IEEE-SA notes that members should provide assignees with a “Statement of Encumbrance” that states that the patent is being transferred subject to existing encumbrances, including accepted Letters of Assurance.[[69]](#footnote-69)

In preparing this Article, we reviewed the IP policies of several SSOs, with an eye to getting an introductory understanding of the different approaches these SSOs take with regard to the transfer of patents covered by the standard. Even looking at just four IPR policies (IEEE-SA, ITU, AVS, and ETSI), we saw a variety of approaches to the issue of transferring essential patents. For instance, the approaches varied as to whether the transfer has to be subject to the same FRAND commitment, or whether the SSO just expresses a preference that the transfer be made subject to the same FRAND commitment.

On this point, ITU and ETSI both require the member executing a transfer to make “reasonable efforts” to notify the assignee of the relevant obligation. ITU also requires that the member who reasonably believes that he is bound by a FRAND commitment as to the patents that he is assigning must make “reasonable efforts” to obtain the assignee’s agreement to be bound by the FRAND commitment. However, if the member fails to obtain such an agreement upon making reasonable efforts, the ITU member will have no further express obligations with regard to the licensing commitment and the transfer.[[70]](#footnote-70) The ETSI policy also addresses an inability to obtain a FRAND commitment. Under Section 8 of the ETSI policy, however, if an essential patent becomes unavailable after the standard is finalized, the burden is on ETSI to seek a commitment from the patent owner to license on FRAND terms, and a failure to obtain such a commitment could even lead to ETSI scrapping the entire standard.[[71]](#footnote-71) On the other hand, both IEEE-SA and AVS require the patent owner to secure the assignee’s agreement to be bound, rather than merely requiring the patent owner to make “reasonable efforts” to do so.[[72]](#footnote-72)

These four SSOs thus represent three distinct approaches to transfers in an SSO’s IPR policy: 1) a statement of the SSO’s preference for transferability without imposing concrete obligations; 2) imposing some responsibility for obtaining FRAND commitments from new assignees on the SSO itself; 3) explicit language that transfers *must* be made subject to the FRAND commitment. Analysis of a larger sample might reveal even more options. The fact that we found three different approaches to transfers in four SSOs, however, supports Lemley’s conclusions about non-uniformity in SSOs’ IPR policies, and suggests that this non-uniformity is pervasive throughout IPR policies and is not limited to the categories that Lemley examined.

Ultimately, we urge that SSOs should amend their IPR policies to address the issues that we raise in this Article. Uniformity between the approaches of different SSOs could also be beneficial, and this uniformity could be achieved through a voluntary consortium or through government intervention and oversight. As discussed below in Section III.B.iii, formal contract law would likely be adequate for addressing issues relating to nonmembers, after-acquired patents, and essentiality, provided the IPR policy contained sufficient detail on these topics. However, contract law alone will not cause FRAND commitments to be binding on assignees in the absence of the assignee giving explicit consent to be bound.

One final issue related to transfers is the difficulty of determining when and to whom a patent has been assigned. We do not expect that a voluntary consortium would be effective at tracking patent assignments, and thus government intervention may be the only option to address this problem. Because transfers of SEPs are an especially contentious issue, and the IPR policies of SSOs likely include no requirements to aid in tracking the assignment of SEPs, we turn now to the possibility of government intervention to require recordation.

* 1. Transparency and Assignment of SEPs

There are many areas of property ownership where ownership transparency is required or encouraged, such as automobiles and real property. In the case of an ownership transfer of a car, for example, the seller will provide the buyer with the title documents, and the buyer will typically use these documents to register the vehicle with the state. With real property, not only must title be transferred and recorded upon sale, but doing so also makes it a matter of public record. Should there be a similar device to ensure transparency in patent assignments?

Requiring the registration of patent assignments could provide helpful information to potential patent licensees, especially in the context of standards. When adopters of a standard can quickly identify the current legal owner of the patent, knowing the identity of the owner can put the implementer at ease if he knows that the patent owner has a record of licensing patents on reasonable terms. In the alternative, the identity of the patent owner could also trigger caution on the part of the implementer if the patent owner is identified as a PAE or has a reputation for being very litigious. In either circumstance, ownership transparency can provide greater certainty to standard implementers. Ownership transparency may also benefit SSOs, as transparency might make it easier for the committees responsible for setting the standard to research patent ownership interests and design the standard and policies related to the standard with an eye to mitigating future conflict.

U.S. patent law already includes a defensive recordation provision that is functionally similar to Article 9 of the Uniform Commercial Code (UCC)[[73]](#footnote-73) in that it allows recorded patent assignments to take priority over subsequent transfers of the patent.[[74]](#footnote-74) However, this provision does not make recordation mandatory. On the other hand, Executive Order 9,424, which was issued on February 18, 1944, does make recordation mandatory, but only for interests in patents held by government entities.[[75]](#footnote-75)

Some prominent policy actors, including academics, the FTC, and the USPTO, have expressed support for requiring recordation of patent assignments. The FTC, in a 2011 report on patent law issues, asserted that accurate patent assignment records would assist parties in clearing patent rights.[[76]](#footnote-76) In November 2011, the USPTO published a request for comments (RFC) concerning a possible rule change to make assignment recordation mandatory.[[77]](#footnote-77) Like the FTC, the USPTO also noted that uncertain patent ownership has the potential to complicate patent clearance and interfere with market efficiency. These justifications for transparency are especially relevant in the standards context, where incomplete information can lead to very costly harm.

The USPTO’s RFC considers possibilities like requiring patentees to update assignment information prior to publication of the patent application and offering discounted maintenance fees when assignee information is verified or updated around the time that the maintenance fees are due.[[78]](#footnote-78) Currently, updating assignment information is optional.[[79]](#footnote-79) Most comments to the RFC were largely positive, but some comments expressed concerns about the possibility that mandatory recordation could increase costs for patentees. The Intellectual Property Owners Association (IPO) pointed out that in the case of some organizations with large patent portfolios, the patent prosecution and patent ownership issues may be handled by two separate departments, and sometimes even by two entirely separate sets of outside counsel.[[80]](#footnote-80) All of the comments opposing a mandatory recordation requirement asserted that such a requirement would increase costs for applicants, with most reasoning that additional legal analysis would be required to resolve ownership questions in order to report accurate and sufficiently documented information to the USPTO.

Most of the possible recordation requirements addressed by the RFC are for the time period prior to issuance. For post-issuance assignment changes, the RFC notes the possibility of discounting the maintenance fee in exchange for patent owners confirming or updating the recorded assignments. Though many of the opponents to the proposed regulations question the utility of a discount to maintenance fees as an incentive to record assignments, we view this option as striking a good balance between costs to patent owners and the benefit that would be provided to the public by requiring patent owners to update the records with the USPTO if there is an assignment after the patent issues. But in our view, SEPs should be treated as a special case. Recordation of SEP assignments should be done in a timely fashion. Under the current schedule for payment of maintenance fees, if a SEP is assigned shortly after the maintenance fee is paid, and recordation is not required (or requested) until the next maintenance fee is due, that might be four years away.[[81]](#footnote-81)

If the USPTO implements regulations to require the recordation of assignments, this could benefit parties like Widgecom and Widgetech in the above hypothetical, who could identify the new owners of the patents that they sought to license. However, the usefulness of such a regulation would be questionable if the USPTO did not require recordation at the time of assignment, but rather at the time maintenance fees were paid. If the USPTO’s authority to implement recordation requirements for post-issuance assignments is on shaky legal ground, legislative intervention might be beneficial. We recommend that in the case of SEP transfers, prompt recordation of assignments should be required, perhaps within ninety days of an assignment. This kind of recordation requirement for SEP transfers is what Merrill and Smith would refer to as a “notice strategy” in that it provides a method to facilitate the disclosure of new information.[[82]](#footnote-82) Notice strategies are typically associated with rights *in rem*, a topic that we examine in more detail as it relates to SEPs in Section IV.A.ii.

As the above discussion demonstrates, there are many issues that may arise when SSOs adopt standards that rely on patented technologies. The IPR policies of SSOs may attempt to address some of these issues ex ante, but SSOs are generally unable to exercise any control over the transfers of patents owned by members. The law also keeps a largely “hands off” approach with respect to patent assignments, deferring to the patent owners to make private deals with minimal oversight. This may be a positive attribute of the IP system in most contexts, but when SEPs are in issue, some additional oversight could be beneficial to ensure that patent owners also take the public interest into account. We turn now to the main category of legal oversight that has been thus far utilized in the context of standards issues: civil litigation resulting from a dispute.

1. STANDARDS, LITIGATION, AND LEGAL THEORIES

Due to the complexity of standards and IPR policies, there are many opportunities for companies to engage in unfair or inefficient behavior. In our view, there are three main situations in which a patent holder may unfairly leverage his patent in the standard-setting context: (1) a patent may be concealed during the standard setting process (“concealment”); (2) a patent holder may change his mind after making a FRAND commitment or otherwise seek arguably non-FRAND terms (“bait-and-switch”); and (3) a patent holder who made a FRAND commitment may transfer the patent to a third party that refuses to honor the FRAND commitment (“succession”).

The first situation, concealment, may arise when a party has a patent that is essential to a standard under development, and then intentionally fails to disclose this patent to the SSO. Once the standard has been adopted, this patent holder might sue good faith adopters of the standard for infringement. Some SSOs address the problems raised by the threat of patent concealment by including provisions in their rules that require FRAND-RF licenses to be granted by patent owners that intentionally concealed patents.[[83]](#footnote-83) If the patent holder would otherwise at least be entitled to a reasonable royalty for the use of the patent by standard adopters, a requirement that the patent holder license the patent on a royalty-free basis would be less appealing to a company that wants to earn revenue from its patents, and thus patent holders participating in these SSOs have incentive to disclose patents to the SSO.

In the second situation, bait-and-switch, a party may disclose his patent to the SSO and initially agree to license the patent on FRAND terms to anyone who requests a license. The patent owner might then later change his mind or otherwise demand excessive royalties from competitors that want to implement the standard. This situation is problematic in part because the potential licensee may have already made substantial investments in reliance on the FRAND promise.

The third situation, where a patent is assigned to a successor in interest who did not make a FRAND commitment with the SSO, is less clear. The effect of patent transfers on the enforceability of FRAND commitments is currently an open question. The FRAND commitment is typically construed as a contract between the initial patent holder and the SSO, so the question arises of when and under what circumstances a successor in interest can be bound by that contract, and by whom. The approaches of SSOs vary on this point. Many state in their policies a preference that future assignees be bound by the FRAND commitment. However, some SSOs merely require the contracting party to make a reasonable effort to obtain the assignee’s agreement to be bound, while others require that any assignment have the express condition of being subject to the FRAND commitment.[[84]](#footnote-84) SSOs also may vary on whether the agreement explicitly addresses granting licenses to non-members, and whether the FRAND commitment applies to core-essential, non-core essential, and commercially essential patents.

* 1. Litigation over FRAND commitments

Litigation over a FRAND commitment may come in several forms, most commonly focused on antitrust law or contract law. If the FRAND commitment creates a duty to negotiate in good faith, as some courts have suggested,[[85]](#footnote-85) the reality of negotiation introduces more complications. For example, in normal negotiations, if the party seeking a payment is the first to offer, they will often highball the other party, thus causing future negotiations to use that high initial offer as a reference point. Similarly, if the party that will be making a payment is the first to offer, they will often lowball the other party, and future negotiations may thus be anchored lower due to the lower initial reference point.

But what about negotiations when there is a FRAND commitment? Both parties know that the end result has to be fair and reasonable. Some recent court cases have emphasized that an initial offer must be at least made in good faith.[[86]](#footnote-86) Additionally, some SSOs use language requiring that *negotiations* must be on FRAND terms, suggesting that the initial offer must also abide by FRAND principles.[[87]](#footnote-87) If the initial offer is required to be on FRAND terms, this may restrict the ability of negotiators to either use highballing or lowballing techniques.

When a patent owner has previously entered into a FRAND commitment, she may attempt to comply with this agreement at first, and engage in negotiations with the potential licensee. However, if the negotiations are unsuccessful or not likely to be successful, the parties might file suit and request that a court intervene and set the FRAND terms. A court that is tasked with setting FRAND terms for a license may use a similar approach as when the court is asked to set a reasonable royalty or determine if a proffered royalty amount is reasonable. If a court is asked to determine if a royalty is reasonable, the court will often weigh a number of factors, possibly applying the fifteen factor test of *Georgia-Pacific*.[[88]](#footnote-88) In the FRAND context, a court that is asked to set a royalty amount will likely have to consider the increased value that a patent enjoys merely by being essential to a standard, and may eventually set the royalties at the level that would be appropriate if the patent’s value had not been inflated by its use in a standard.

As is true with most litigation, FRAND litigation is rarely focused on a single issue. Litigation over a FRAND commitment may raise antitrust issues, with one or both parties asserting that the other is behaving in an anticompetitive manner and violating antitrust law. Even if the FRAND commitment portion of the dispute is governed by principles of contract law, the parties are likely to raise patent issues as well, including patent validity. Because of the importance of contract law, however, FRAND commitment claims may be brought in state court or federal district court, and appeals may be heard by many different courts other than the Federal Circuit, which handles appeals of patent cases.

If the case involves claims of patent infringement, the patent holder may also be seeking an injunction, a common remedy sought in patent cases. Under *eBay Inc. v. MercExchange, LLC*, the normal four-factor test for determining the appropriateness of an injunction in other areas of civil litigation also applies to patent disputes. To obtain a permanent injunction under that test, a patent owner will have to demonstrate: (1) irreparable injury; (2) the inadequacy of money damages to compensate for the injury; (3) that a remedy in equity is warranted after considering the balance of hardships between the parties; and (4) that a permanent injunction would not be harmful to the public interest.[[89]](#footnote-89) Patent law inherently gives patent owners a right to exclude others from practicing their invention, so when a court determines that an injunction is not appropriate but that the non-owner was infringing the patent, the court may set an ongoing royalty rate to provide a reasonable compensation to a patentee who has thus given up his right to exclude the infringer from practicing the patent.[[90]](#footnote-90) A study by Chien and Lemley found that there has been a reduction in injunctions since eBay, but the authors suggest that this reduction may be offset by the continued availability of injunctions in litigation before the International Trade Court (ITC),[[91]](#footnote-91) an issue that we examine in more detail in Section V.C.

Bankruptcy is another area that occasionally is implicated in these disputes. Above, we noted that patents are often bought and sold. Sometimes, these purchases are not between two solvent companies, but instead occur when one of the companies is declaring bankruptcy and its patent portfolio is being sold to satisfy debts. Under the bankruptcy law of the United States, patents are generally treated as an asset subject to sale by the trustee in the event that the patents are found to be non-exempt assets of the bankruptcy estate pursuant to the bankruptcy code.[[92]](#footnote-92) Merges and Kuhn note that the interests of a bankruptcy estate are often very different from the interests of the original patent owner, as the bankruptcy estate has a fiduciary duty to creditors, and thus the estate has the incentive to maximize short term profits.[[93]](#footnote-93) IP licenses are granted some protection, with licensees generally being given the power to elect to retain their rights.[[94]](#footnote-94)

However, a FRAND commitment does not create an express license, though it arguably imposes on the patent owner a duty to negotiate in good faith, so the agreement’s fate under a bankruptcy proceeding is unclear. Because of the importance of FRAND commitments to public interest concerns, one option is for bankruptcy courts to treat FRAND commitments in a way similar to nondischargeable priority debts.[[95]](#footnote-95) The court and the parties can take action to clarify this issue. In the bankruptcy proceeding for Nortel Networks, Inc., the bankruptcy court stated that debtors would take assets free of any other liens or interests, except for a few categories of interests.[[96]](#footnote-96) One of the enumerated categories that Nortel’s debtors took assets subject to was enforceable agreements with SSOs.[[97]](#footnote-97) The *Nortel* example shows that bankruptcy courts are receptive to arguments regarding the value of FRAND commitments made to SSOs, and that these courts have the power to prevent these commitments from being discharged in bankruptcy.

As the above discussion demonstrates, litigation over FRAND commitments is likely to involve many different legal areas and theories. Bankruptcy law may be implicated when the question is whether a FRAND commitment survives a bankruptcy proceeding, but this is likely to come up in a more narrow circumstance. Instead, much of the litigation in this context begins based on the patent owner’s claim for infringement, so defenses under patent law may be relevant. Because the effects that patent exclusivity has on competition can be especially harsh when the patents are part of a standard, arguments may also assert that the patent owner engaged in unfair competition or anticompetitive behavior. Finally, at its core, a FRAND commitment is a contract, so contract law doctrines are likely to influence outcomes of litigation. Thus, we turn now to a more detailed evaluation of these three areas of law (patents, antitrust, and contracts), and how they currently affect some of the major problems that we argue arise in the context of FRAND commitments and patent transfers.

* 1. The Law of FRAND commitments and Transferability

When a patent holder assigns her patent to a third party, and the patent was previously subject to a FRAND commitment with an SSO, is the third party assignee bound by this agreement? This is a difficult question that current law inadequately addresses. Currently, the discussion of these topics mostly focuses on patent law, antitrust law, and contract law.[[98]](#footnote-98) Patent law offers the weakest options for addressing FRAND disputes. The options under antitrust are somewhat stronger than under patent law, but are fundamentally limited by the nature of antitrust law in the United States. In terms of the legal theories that have been examined for these purposes, contract law has the most potential for addressing the problems set forth in the above hypothetical, but still has many shortcomings.

In this subsection, we will discuss some of the current aspects of several areas of law, and then go into more detail in an attempt to conclude which theories, if any, are best suited to address the first four problems faced by the parties in our Widget hypothetical: the transferability of FRAND commitments; the enforcement of FRAND commitments by non-members of the SSO; the application of FRAND commitments to “core” essential patents, “non-core” essential patents and commercially essential patents; and the application of FRAND commitments to after-acquired patents. The question of appropriate remedies is addressed separately in Section V, because these issues are most likely to be raised in the context of patent litigation, which historically has been associated with injunctions.

* + 1. *Patent Theory*

Some principles of patent law may be applicable to the current controversy, including laches and equitable estoppel, implied licenses, or a theory that allows the original patent owner’s wrongdoings to be imputed to the successor in interest.

Laches is a patent law doctrine that resembles a statute of limitations in that it prevents patent holders from profiting by their delay in bringing suit for infringement.[[99]](#footnote-99) A laches defense also tends to follow the patent, and a patentee assignee will be bound by the conduct of his predecessor in interest.[[100]](#footnote-100) When raising a defense of laches, the defendant must establish two things: 1) there was an unreasonable delay before the patent owner asserted a claim; and 2) the delay caused prejudice or injury to the defendant.[[101]](#footnote-101) The length of time necessary for a delay to be unreasonable varies with the situation, but a delay of six years or more is generally viewed as prima facie unreasonable.[[102]](#footnote-102) The prejudice prong may refer to economic prejudice or evidentiary prejudice. An inquiry concerning economic prejudice would focus on investments or damages that would not have accrued if the patent owner had brought suit sooner.[[103]](#footnote-103) An inquiry concerning evidentiary prejudice would focus on circumstances where the defendant’s ability to present a full defense on the merits has been prejudiced due to factors like a witness’s death or loss of records.[[104]](#footnote-104)

However, laches turns on notice of specific infringement and typically requires there to be a communication between the owner and infringer about that infringement. In the standards context, a patent holder may not have specific notice of every implementation of the infringing standard. Thus, even if the patent holder decides to wait several years to track down and sue specific infringers, the clock for laches probably would not start running unless the patent holder has notice about a particular infringing incident, and has contacted the infringers about the possibility of litigation.[[105]](#footnote-105) Additionally, courts typically do not find economic prejudice based on the cost of infringing, and Merges and Kuhn suggest that this indicates that courts may not be receptive to an argument that the delay in bringing suit deprived the standards adopter of the chance to find a non-infringing workaround.[[106]](#footnote-106)

A defense related to laches is equitable estoppel, which allows an accused infringer to claim that the patent owner’s course of conduct “reasonably gave rise to an inference” that the patent would not be enforced.[[107]](#footnote-107) Equitable estoppel and laches are both defenses that focus on nonenforcement, but equitable estoppel focuses on the mindset of the potential licensee, rather than the patent owner. Where laches requires the patent owner to be aware of specific infringement and fail to take action, equitable estoppel requires at a minimum that the accused infringer is aware that the patent owner made statements addressing nonenforcement of the patent and that the accused infringer then relied on that statement. The Federal Circuit, in *A.C. Aukerman Company v. R.L. Chaides Construction Co.*, stated that reliance requires for the infringer to “have had a relationship or communication with the plaintiff which lulls the infringer into a sense of security.”[[108]](#footnote-108) Lemley notes that equitable estoppel arguments may also apply to statements made in the marketplace or directly to customers.[[109]](#footnote-109) Merges and Kuhn also observe that in limited situations, silence may also contribute to an equitable estoppel defense as a misrepresentation if there was a clear duty to speak.[[110]](#footnote-110)

In the SSO context, Lemley suggests that equitable estoppel should exist when the standard adopter is aware of a statement that the patent owner made to the SSO concerning enforcement of the patent.[[111]](#footnote-111) However, Lemley expresses doubt that equitable estoppel would protect standard adopters who rely on FRAND promises, because the promise does not prompt a reliance on nonenforcement of the patent, but rather an expectation that the patent will be asserted and reasonable royalties sought.[[112]](#footnote-112) The affirmative communication requirement of equitable estoppel may also limit its application to other members of the SSO to whom the FRAND commitment was made.[[113]](#footnote-113) If the patent owner fails to disclose relevant patents, it is unclear whether this failed disclosure passes the high bar for silence to be misrepresentation.[[114]](#footnote-114) Thus, a slightly amended approach to equitable estoppel might be needed to address repudiated FRAND commitments, allowing a standard adopter to estop a patent owner from denying a license or seeking an injunction, even if the patent owner was not the party that initially made the commitment to the SSO.[[115]](#footnote-115) Under the approach proposed by Merges and Kuhn, the proposed affirmative defense of standards estoppel should also survive assignment of the patent.[[116]](#footnote-116)

Another patent law option that might assist standard adopters when a patent owner reneges on a FRAND commitment is the possibility of implied licenses. An implied license is a quasi-contract doctrine that turns on the expectations of the parties in a sales transaction. Merges and Kuhn note that in a patent case, the implied license issue may arise in the case of a patented process that requires the use of a non-patented item.[[117]](#footnote-117) In such a situation, a court might say that the purchaser of the non-patented good has an implied license to use the patented process that the purchaser acquired the non-patented good to use. Lemley has argued that viewing a FRAND commitment as an implied license would allow all of the standard adopters to benefit, regardless of whether they would have had standing to sue for contract damages, and that such an approach would also reduce opportunism in litigation over SEPs.[[118]](#footnote-118) However, Merges and Kuhn argue that such implied licenses would probably be construed very narrowly, and thus not likely to provide an effective remedy.[[119]](#footnote-119)

The final approach that we noted under patent law, imputing the wrongdoings of a predecessor in interest, is likely insufficient to address most of the disputes that would arise in the context of transferring patents subject to a FRAND commitment, but is worth noting. If the previous owner of the patent made an intentional fraudulent representation to the SSO or to the USPTO, that misrepresentation could potentially lead to the patent being ruled unenforceable because of the inequitable conduct.[[120]](#footnote-120) This may be an option if the potential licensee can establish that the patent was transferred for the purpose of avoiding the obligations of the FRAND commitment, but this theory is not likely to help in situations where the previous owner did not engage in intentional wrongdoing.

* + - 1. Patent law cases

Above, we noted the possibility that a court might find an implied license in the FRAND context. No cases could be found where this approach was discussed in detail, but implied licenses are an accepted possibility in patent law.[[121]](#footnote-121) However, the cases addressing implied licenses generally focus on contexts where there is a relationship between the patent owner and the party claiming an implied license. For example, in *Wang Laboratories Inc. v. Mitsubishi Electronics America, Inc.*, the Federal Circuit found an implied license where Wang had entered into an agreement with Mitsubishi to manufacture (and then sell back to Wang) SIMM cards that Wang had developed.[[122]](#footnote-122) Wang did not inform either Mitsubishi or the SSO that it was seeking a patent on the SIMM technology. Lemley has argued that the implied license doctrine may assist in resolving disputes over FRAND commitments, suggesting that the FRAND commitment creates an implied license under proper circumstances,[[123]](#footnote-123) but it is currently unclear how courts would respond to this argument.

Equitable estoppel is another defense to patent infringement that courts might consider. The law of equitable estoppel currently focuses on whether the patent user relied on an assertion of nonenforcement by the patent owner. Some courts have found estoppel when there was intentionally misleading silence on the part of the patent owner,[[124]](#footnote-124) but as noted above, there is some disagreement in the literature about whether silence should be considered a misrepresentation in the SSO context.[[125]](#footnote-125) The idea that users of standards become reliant on the availability of the technology can be found in patent cases like *Lotus v. Borland*.[[126]](#footnote-126) In *Lotus*, the reliance interest was effectively created in the user who devoted time to learning Lotus 1-2-3. The court acknowledged that Lotus 1-2-3 “represented the de facto standard for electronic spreadsheet commands,” but concluded that if a better spreadsheet product became available, Lotus users should be able to apply their Lotus 1-2-3 knowledge and macros to the superior products instead of either learning a new system from scratch or being locked in to Lotus 1-2-3.[[127]](#footnote-127)

Though potentially less likely to arise in the FRAND context, there is some case law precedent supporting the idea that patents may be ruled unenforceable based on intentional misrepresentations that a predecessor in interest made to an SSO. In *Barnes & Noble Inc. v. LSI Corp.*, the court allowed such a claim to proceed where the claim was based on an assertion that LSI’s predecessor in interest (Lucent) “intentionally and knowingly made material misrepresentations and/or omissions in connection with standards-setting organization.”[[128]](#footnote-128) The court in *Barnes & Noble* also noted that fraud, both prior and subsequent to patent issuance, can make a patent unenforceable.

The patent-related claims that concern FRAND commitments occasionally overlap with contract law claims, but not always in the same litigation. The interrelated nature of disputes over patents and FRAND commitments can lead to litigation being severely impeded, especially when the disputes are being addressed by different courts. Consider, for example, the Delaware case of *Rembrandt v. Harris Corp*., and the concurrent multidistrict litigation (MDL), *In re Rembrandt Technologies, LP Patent Litigation*.[[129]](#footnote-129) In the litigation against Harris, one of the issues concerned the ‘627 patent and the application of a FRAND commitment that AT&T, Rembrandt’s predecessor in interest, made to the Advanced Television System Committee (ATSC) during the promulgation of the HDTV standard.[[130]](#footnote-130) Harris was not a party to the MDL, but the ‘627 patent’s validity was being challenged in the MDL, so Rembrandt sought Harris’s admission as to the ‘627 patent’s validity.[[131]](#footnote-131) If Harris had admitted to the patent’s validity in the FRAND litigation, Rembrandt could have used that admission as evidence in the patent litigation. The concurrent disputes led to changes in the parties’ position in the Delaware litigation when there were changes in the status of the MDL proceedings, to the occasional frustration of the courts.[[132]](#footnote-132) Patent issues, patent-based theories to address FRAND commitment issues, and contract claims would ideally be treated by the same court that has full access to information from the parties, but as *Rembrandt* shows, jurisdiction issues may make this difficult. This is another topic that is ripe for further analysis by policy professionals and academics.

* + - 1. Insufficiency of patent law to address FRAND problems

Patent law does not provide viable recourse when FRAND commitments are disregarded by assignees. The patent law doctrines of equitable estoppel and implied licenses are likely to be ineffective as defenses against patent litigation over SEPs. These doctrines are derived out of some sort of representation made by the patentee that is relied on by the infringer. Because of the lack of relationship between nonmembers and patent owners, an argument is likely to fail if it argues that a defense of laches, equitable estoppel or an implied license supports FRAND commitment enforceability by nonmembers. A defense of equitable estoppel may, however, be available to SSO members if a court concludes that membership in the same SSO is sufficient to infer a relationship. These defenses, however, are unlikely to be helpful at all in the context of after-acquired patents, as it is likely not reasonable to infer that a representation was made as to a patent that is not yet owned.

* + 1. *Antitrust and Unfair Competition*

A second major area of law that is raised in the SSO context is antitrust and unfair competition.[[133]](#footnote-133) Lemley notes that to establish an antitrust violation of monopolization or attempted monopolization under the Sherman Act, the party must prove the defendant’s market power, anticompetitive conduct, and intent.[[134]](#footnote-134) Remedies for antitrust violations may include treble damages, attorney’s fees, and enforcement by antitrust authorities.[[135]](#footnote-135) The law of unfair competition, especially as set forth in Section 5 of the FTC Act,[[136]](#footnote-136) is a body of law that often overlaps with antitrust law, though some practitioners prefer to use the term “antitrust” in a more limited sense. We discuss both Sherman Act claims and Section 5 unfair competition claims in Section III.B.ii.1.

The overlap of antitrust law and patent law is the subject of much discussion among academics. Antitrust law aims to prevent abuses through monopolistic and anticompetitive behaviors, but some monopolies are lawful and permitted. Patents, for instance, always create a monopoly, and courts generally act with more deference to the patent system when weighing monopolistic behaviors by patent owners.[[137]](#footnote-137) SEPs, however, have the potential to be more harmful to competition and the market if that monopoly power is abused. When a patent owner has a SEP, therefore, a court may weigh the owner’s behavior as a patent owner against his obligations under antitrust law, affording somewhat less deference to the nature of the patent as a legal monopoly.[[138]](#footnote-138) However, Mossoff notes that there are many concerns about whether courts that shape antitrust law have an adequate understanding of the effects that such rulings might have on future technological innovation.[[139]](#footnote-139)

In the following subsections, we examine antitrust case law in more detail. As analysis of the case law shows, the viability of antitrust claims in the FRAND litigation context is ultimately unclear under U.S. law.

* + - 1. Antitrust and unfair competition cases

Scholars and courts alike have often focused on competition law’s potential to address issues relating to standards and FRAND commitments.[[140]](#footnote-140) Antitrust law and the law of unfair competition are areas that are largely based on case law, because the governing statutes (e.g., the Federal Trade Commission Act, the Sherman Act and the Clayton Act) are written in very high level and general language. Thus, fact-specific inquiries are very important in antitrust and unfair competition cases.[[141]](#footnote-141)

Perhaps due in part to antitrust’s reliance on fact-specific inquiries, the legal conclusions about FRAND commitments and antitrust have been spotty. The case of *Broadcom Corp. v. Qualcomm Inc.*, for example, emphasizes that there may be antitrust liability when there is active deception of the SSO.[[142]](#footnote-142) Similarly, in *Research In Motion Ltd. v. Motorola, Inc.*, the court concluded that Motorola’s breach of a FRAND promise was harmful to competition.[[143]](#footnote-143) The court in *Vizio, Inc. v. Funai Elec.* reasoned that there may also be antitrust liability when there is an active attempt to conspire to harm competition.[[144]](#footnote-144) However, under the reasoning in *Vizio*, the mere transfer of a patent is likely not enough to show anticompetitive behavior, and a refusal to abide by the FRAND commitment made by a predecessor in interest is not inherently a harm to competition.[[145]](#footnote-145)

The cases also indicate a trend towards requiring active deception of an SSO for antitrust liability under the Sherman Act to attach. The important case of *Rambus, Inc. v. FTC* held that mere failure to disclose a patent application, even when the patent owner appears to have intentionally amended a patent application to make the claims fall within the standard specifications, would not sufficiently establish anticompetitive harm if the concealment was intended to avoid the royalty limits imposed by a FRAND commitment with the SSO.[[146]](#footnote-146) The *Rambus* court also held the FTC to a high causation bar, requiring a showing that but for the concealment, the SSO would have chosen an alternative technology.[[147]](#footnote-147) *Rambus* further emphasizes the Supreme Court case of *NYNEX Corp. v. Discon, Inc.* for the principle that fraudulent behavior along with harm to consumers in the form of increased prices was not a *per se* antitrust violation where the increased cost to the consumer could be attributed to the exercise of a lawful monopoly power.[[148]](#footnote-148) The *Rambus* court’s reading of *NYNEX* is problematic for plaintiffs in antitrust cases concerning patents in general, and is potentially broad enough to restrict or eliminate the application of antitrust law in cases involving patents that are part of a standard.

Because of cases like *Rambus* and *Vizio*, the application of antitrust law as a solution for a FRAND commitment dispute may be very limited. When there is an omission instead of an active attempt at deception, the reasoning of *Rambus* may persuade a court to find against antitrust liability. Similarly, *Vizio* seems to stand for the idea that antitrust liability does not automatically follow the patent. While *Vizio* left it open for antitrust liability to attach to conspiracies to harm competition, it also deferred to the patent owners with respect to the issues of patent transfer and repudiation of commitments made by a predecessor in interest. Similarly, as seen in *Apple, Inc. v. Motorola, Inc*., the *Noerr-Pennington* doctrine may limit the ability of defendants to raise antitrust issues as counterclaims upon being sued for infringement.[[149]](#footnote-149) Because of the *Noerr-Pennington* doctrine, even if courts would recognize that reneging on a FRAND commitment was an act that violated antitrust law, if the patent owner sues for infringement first, the infringer likely cannot raise the otherwise valid antitrust issue as a counterclaim. Thus, if the infringer does not bring the antitrust claim before the patent infringement claim is filed, the antitrust claim might not be able to be brought at all.

The FTC, which is one of the agencies authorized to enforce antitrust law, has also been very involved with these issues. The above referenced *Rambus* case overturned an FTC opinion where the FTC concluded that Rambus’s actions did amount to anticompetitive conduct. When the FTC decided the case against Rambus, it drew on both Section 2 of the Sherman Act and Section 5 of the FTC Act, finding that Rambus had unlawfully monopolized several technology markets through its deceptive conduct.[[150]](#footnote-150) However, the DC Circuit did not address the Section 5 aspects, because the FTC did not raise Section 5 in its case before the DC Circuit.[[151]](#footnote-151)

Some FTC adjudications result in consent decrees, which focus on prohibiting future actions like the behavior under investigation, and are generally not appealed. Many of these involve Section 5 of the FTC Act. One of the first examples in the Information Age where the FTC investigated a company for standards-related misbehavior is *In re Dell*. There, the FTC found that Dell had violated Section 5 of the FTC Act by failing to disclose its interest in a SEP and then exercising its rights against implementers of the standard eight months after the standard was adopted.[[152]](#footnote-152) Under the consent decree, Dell agreed that it would not assert its IPR in the relevant standard.[[153]](#footnote-153)

Another Section 5-based FTC adjudication, which also resulted in a consent decree, involved the actions of Negotiated Data Solutions LLC (NData). In that case, the FTC ordered NData to comply with the terms of FRAND commitments that its predecessor in interest (National Semiconductor Corp.) made with the Standards Association of the Institute of Electrical and Electronics Engineers, Inc. (IEEE-SA).[[154]](#footnote-154) In the NData adjudication, the FTC concluded that NData’s actions with regard to the patent amounted to unfair competition under Section 5 of the FTC Act, 15 U.S.C. § 45, but the FTC did not establish a standard for determining when there are unfair practices in the standard setting context.[[155]](#footnote-155) Merges and Kuhn also point to the lack of a unanimous decision in NData as indicative of antitrust’s inadequacy to address issues in the SSO context.[[156]](#footnote-156)

Most recently, the FTC investigated Google’s activities relating to patents obtained when Google acquired Motorola Mobility (“MM”).[[157]](#footnote-157) MM had many patents that were considered to be SEPs, and prior to Google’s acquisition, MM threatened to seek injunctions against companies like Microsoft, Apple, and RIM for their use of these SEPs.[[158]](#footnote-158) Google then continued these practices, and the FTC’s initial order, published in January 2013, asserts that this pattern of injunction-seeking behavior in the case of SEPs is a violation of Section 5.[[159]](#footnote-159)

As the *Rambus* case shows, the FTC is held to strict standards on review when FTC adjudication is based on the Sherman Act and claims of monopolistic behavior and outright restraints on trade. The FTC currently has broader discretion to adjudicate possible violations of Section 5’s unfair competition language.[[160]](#footnote-160) Application of Section 5 of the FTC Act through FTC adjudication thus may still preserve a viable outlet for antitrust and unfair competition theories in the context of the transferability of FRAND commitments. However, the remedies available for FTC actions under Section 5 are narrower than those available for violations of Sections 1 and 2 of the Sherman Act, as we examine in more detail below. In the alternative, Speegle suggests that rulemaking under Section 5 might prove beneficial to addressing issues that arise in the standards context.[[161]](#footnote-161)

* + - 1. Insufficiency of antitrust to address FRAND problems

In the standard-setting context, competition law has been one of the most visible aspects of the law governing these disputes. As noted above, however, the case law on antitrust issues indicates that this body of law may not be well-suited for the current controversy. Antitrust claims ultimately cannot be brought until an injury has already occurred, and any positive resolution for the injury must then wait until the conclusion of potentially protracted and complicated litigation. Thus, consumer injury may be magnified by the inherently ex post nature of antitrust remedies.

But the nature of antitrust law in the United States is the primary reason why this area of law will not be sufficient to address FRAND problems. For a claim to be brought under the Sherman Act, the law typically requires a showing of specific intent to engage in anticompetitive behavior, and the existence of anticompetitive behavior is evaluated through a number of tests that each set very high bars. First, antitrust claims under the Sherman Act are dismissed if the court does not think that sufficient harm to competition has been alleged, which in the patent and standards context, typically requires a showing of harm to competition in general, not just a harm to the alleged infringer.[[162]](#footnote-162) Second, as the *Rambus* case shows, a broad application of the principles of *NYNEX* to the standard setting context can lead to a conclusion that harm to consumers arising from a party charging others more for access to the party’s lawful monopoly (e.g., a patent) might require a stronger showing to establish an anticompetitive harm that can be addressed under antitrust law. Third, under the Noerr-Pennington doctrine, the ability to raise antitrust issues in a counterclaim is severely impeded, so antitrust theories are not likely to be helpful if brought as a counterclaim in a suit for patent infringement. There is also case law that suggests that relying on antitrust law for the transferability of FRAND commitments would not work, because as a default rule, the obligations under antitrust law with respect to FRAND commitments would primarily apply to the party that makes the FRAND commitment, and would not transfer to a successor in interest.[[163]](#footnote-163)

Claims brought under Section 5 of the FTC Act, claiming “unfair methods of competition” or “unfair or deceptive acts or practices,” may be more likely to succeed, but with lesser remedies than under the Sherman Act. In litigation brought under the Sherman Act, civil litigants may be able to obtain treble damages and attorney fees, and in FTC adjudication under the Sherman Act, a company may be fined or ordered to disgorge profits.[[164]](#footnote-164) In contrast, Section 5 authorizes the FTC to grant orders requiring the violator to cease and desist with the found violations,[[165]](#footnote-165) but case law suggests that this “cease and desist” authority does not include the power to order the violator to pay restitution to injured parties.[[166]](#footnote-166) Violation of a final order may result in a fine of up to $10,000 per violation, with federal district courts also being authorized to grant mandatory injunctions in the interest of enforcing the final order.[[167]](#footnote-167) While the possibility of injunctions to enforce FTC orders has promise in the SSO context, the threat of a $10,000 fine per violation may not have much bite. The $10,000 fine has been in the statute since 1973,[[168]](#footnote-168) when $10,000 had the buying power of over $50,000 in 2012 dollars.[[169]](#footnote-169)

As to the other issues raised in the hypothetical, the law of unfair competition may have promise for extending FRAND promises to commercially essential patents, and for applying the FRAND commitment to benefit non-members of the SSO. Applying European competition law, the European Commission (EC) recently examined the possibility of requiring owners to grant access to commercially essential technologies in the context of evaluating Google’s acquisition of Motorola Mobility. There, the Commission noted that “in exceptional circumstances, notably where a technology has become an indispensable input for competitors, a refusal to grant access to that technology may be abusive.”[[170]](#footnote-170) However, the Commission’s opinion emphasized that this would be a fact-intensive inquiry. But as noted above, some in the industry allege that treating commercially essential patents as SEPs could harm innovation. If policymakers decree that competitors should be granted access to commercially essential patents or face possible investigations, the policy could strike a balance between acknowledging this obligation and not imposing excessive liability on patent owners by limiting claims to redress under Section 5 of the FTC Act.

We also anticipate that antitrust law and the law of unfair competition could permit nonmembers of the SSO to benefit from the FRAND commitment. The focus of these areas of law is on the market as a whole rather than on specific parties to a contract. As the Dell adjudication shows, the FTC has been willing to require patent owners to agree to not assert their IP rights in a standard. Further clarification and analysis on this point may be beneficial, but it appears that a consent decree that is adopted in response to a patent owner’s refusal to negotiate for a license could require the patent owner to engage in good faith negotiations with potential licensees.

We express doubts, however, that either antitrust law or the law of unfair competition would assist with the problems surrounding after-acquired patents in the United States. For after-acquired patents, we look to the reasoning of the *Rambus* and *Vizio* cases to conclude that antitrust law is not likely to apply to after-acquired patents in the absence of a conspiracy to monopolize. If the SSO’s policy addresses after-acquired patents, this may make the problem capable of being redressed under contract law, but we do not think that such contract language would automatically affect the antitrust issues. Because of the importance of contracts in these disputes, we now turn to an examination of contract law.

* + 1. *Contract*

Contract law is especially relevant to these disputes, because FRAND commitments are typically recognized as being valid contracts. Generally, if the patent owner refuses to make a FRAND commitment, the SSO may decline to use the patented technology in the standard. Lemley’s analysis suggests that a FRAND commitment that is part of an SSO’s bylaws becomes an enforceable contract when the SSO member accepts these terms of membership,[[171]](#footnote-171) but some SSO’s specifically state that the SSO will not get involved with licensing disputes.[[172]](#footnote-172) If the FRAND commitment is a contract that is enforceable against the patent owner, and the SSO states that it will not get involved in licensing disputes, Merges and Kuhn note that this raises difficult questions relating to who can enforce the contract and what the available remedies might be.[[173]](#footnote-173)

This section focuses mostly on the application of formal contract law, but also discusses the application of detrimental reliance. A detrimental reliance theory would be partially grounded in contract law, but the available remedies would be equitable rather than legal.[[174]](#footnote-174)

* + - 1. Contract cases

Because a FRAND commitment is typically viewed as a contract, much of the litigation in the FRAND commitment context focuses on formal contract law. The FRAND commitment is between the patent holder and the SSO, but does it really create a contract? When approaching these problems from a formal contract perspective, this is the threshold question. Fortunately, it is also a threshold question that has been repeatedly answered in the affirmative, at least when the question is whether the agreement creates a contract between the patent owner and the SSO.[[175]](#footnote-175) In *Microsoft v. Motorola*, the court concluded that a FRAND commitment is a valid contract, because the commitment involves an offer, an acceptance, and consideration.[[176]](#footnote-176) There, the court concluded that the SSO’s promise to include or consider including the patent in the standard in exchange for the FRAND commitment was consideration. On an interlocutory appeal concerning a related injunction issued against Microsoft by a German court, the Ninth Circuit concluded that the district court’s characterization of a FRAND commitment as a valid contract was not legally erroneous.[[177]](#footnote-177)

So there is a valid contract, but the contract was created by an agreement between the patent owner and the SSO. If a patent owner violates the agreement, the SSO could sue as the other party to the contract, but the policies of many SSOs indicate that the SSO will not get involved in licensing disputes. If the SSO will not hold the patent owner liable for violating a FRAND commitment, who else can? What about the potential adopters of the standard? Do they have a claim against the patent owner for breach of contract? So far under the law of the United States, the answer has been yes. The standard adopters are likely to be third party beneficiaries under the contract, which means that they receive a direct benefit from the contract even though they are not a party to the contract. In the case of FRAND commitments, these contracts are specifically intended to benefit parties that want to adopt the standard, so there is a solid argument for these adopters being third party beneficiaries. In *Microsoft v. Motorola*, the court specifically noted that Microsoft (a member of the SSO) was a third party beneficiary of the FRAND commitments that Motorola made to the SSO.[[178]](#footnote-178) It would also lead to unjust results if a patent owner who makes a FRAND commitment was permitted to sue standard adopters for infringement, but the standard adopters were not allowed to rely on the FRAND commitment as part of their legal theory. However, this conclusion is not universal across all jurisdictions. German contract law, for instance, typically does not recognize third party rights in a contract.[[179]](#footnote-179)

But many questions are still unresolved. So far, most of the litigation involving questions of third party beneficiaries to a FRAND commitment has occurred in a context where the third party beneficiary was a member of the SSO. Thus, case law is currently unclear as to whether a non-member would be considered a third party beneficiary, though there is at least one case where a court permitted a claim to proceed where a non-member of the SSO in question sought to enforce a FRAND commitment made by a patent owner and its predecessor in interest.[[180]](#footnote-180) Lemley, however, warns that allowing non-members to enforce a FRAND commitment would make the public at large into third party beneficiaries.[[181]](#footnote-181) In our view, non-members of the SSO who fall within the class of “standard adopters” should be eligible to enforce a FRAND commitment as a third party beneficiary, because the class of “standard adopters” is a distinct class and is not the same thing as allowing the FRAND commitment to be enforced by the public at large. The patent owner would not be bound by the FRAND commitment in the case of *all* infringements, just infringements that involve use of the patented technology to comply with the standard.

What does this contract create? In the case of *Apple v. Samsung*, the parties agreed that Samsung’s FRAND declaration to ETSI was a contract that at least created a duty for Samsung to negotiate licenses in good faith.[[182]](#footnote-182) In *Microsoft v. Motorola*, Motorola attempted to argue that the FRAND commitment imposes this duty to negotiate in good faith on the potential licensee, such that if the patent owner makes the first contact with the potential licensee, the obligation to license on FRAND terms is expunged.[[183]](#footnote-183) However, the court rejected this argument, reasoning that it would defeat the purpose of a FRAND promise if the patent owner could evade the obligation by making first contact. The court further rejected Motorola’s argument that Microsoft repudiated the FRAND commitment by filing suit against Motorola instead of negotiating for a license. In the court’s February 27, 2012 ruling granting a partial summary judgment, the court opined that a potential licensee would not be repudiating an agreement if the potential licensee filed suit to request that a court determine whether terms comported with the FRAND commitment.[[184]](#footnote-184) This dicta was made official in the court’s June 6, 2012 ruling on separate summary judgment motions.[[185]](#footnote-185)

If the SSO only requires the license to be *granted* on FRAND terms, is the patent owner obligated by the FRAND commitment to make an initial offer on FRAND terms? In *Microsoft v. Motorola*, the court said no, but that the initial offer “must comport with the implied duty of good faith and fair dealing.”[[186]](#footnote-186) This reasoning suggests that negotiations for royalty payments must start at a point that is not so far from FRAND that it appears to be made in bad faith. There, Motorola’s initial offer to license the patent to Microsoft was at a 2.25% royalty per unit.[[187]](#footnote-187) By including the “good faith and fair dealing” language, the court retained the authority to review the propriety of the initial offer, without inserting new language into a contract that, on its face, only refers to the granted license and not the initial offer.

While a standard implementer might choose to sue for breach of contract due to an excessive initial royalty offer, a more likely scenario is that the parties might fail to reach an agreement after prolonged negotiations. The standard implementer might then file suit, claiming that by failing to reach an agreement, the patent owner breached the contract with the SSO. In one such case, the mobile phone companies Ericsson and Samsung sued each other after reaching a stalemate in an attempted renegotiation of a cross-license of SEPs.[[188]](#footnote-188) Both companies asserted that the other party’s failure to reach an agreement was a breach of contract of the FRAND promise that each made to ETSI.

If a FRAND commitment is construed as an enforceable contract, and the litigation continues to a final judgment, the court may be asked to determine a reasonable royalty under the contract. When analyzing this question, some courts look to the 1970 case of *Georgia-Pacific Corp. v. U.S. Plywood Corp.*, which set forth a very detailed fifteen factor test for determining a reasonable royalty.[[189]](#footnote-189) The *Georgia-Pacific* factors, however, do not provide any guidance for calculating royalties, but only for determining whether proffered royalties are reasonable.[[190]](#footnote-190) Sometimes, the reasonable royalty question is simplified by the existence of a number of other licenses for the same patent, but a court following the *Georgia-Pacific* factors may emphasize that the existence of comparable royalty arrangements is only part of the test. Because owning a SEP gives the owner a greater power in negotiations, courts have also discussed a reasonable royalty for a SEP as being guided by the royalty that the patent would have warranted on its own in the absence of the standard.[[191]](#footnote-191) This is also a position supported by the FTC in its recent Intellectual Property Marketplace Report, in which the FTC recommended capping royalties at the licensing value of the patent at the time the standard was defined.[[192]](#footnote-192)

* + - 1. Litigation over FRAND commitments--Transferability

While contract theories are pretty straight forward when the litigation focuses on the obligations of the party who made the promise, the topic gets muddled when the patent starts changing hands. As we noted above in the context of bankruptcy law, licenses are often an easier case than FRAND commitments. The same is true in theories based on formal contract principles. In *Intel, Inc. v. Negotiated Data Solutions, LLC*, the court held a 1976 license valid even though the patent had been assigned multiple times and had been granted reissue by the USPTO since the license was initially created.[[193]](#footnote-193) Similarly, in *Rembrandt v. AOL*, the current owner of the patent was found to be bound by the prior license agreement and subsequent sublicensing agreements.[[194]](#footnote-194) In that situation, both the patent and the license had been assigned multiple times.

FRAND commitments, however, are potentially more complicated, because they do not create a license, and instead only leave open the possibility for a license. In *Rembrandt v. Harris Corp.*, which we also discuss in Sections III.B.i.1 and IV.B.vi, a Delaware court ran the gamut, and so did the litigants. Harris sought a FRAND license from Rembrandt for the ‘627 patent, an HDTV-related patent that Rembrandt obtained from AT&T. The same patent was also the subject of MDL in federal court, though Harris was not a party to that litigation. Based on the terms of the FRAND commitment that AT&T entered into with the ATSC, the court initially granted Harris’s motion for partial summary judgment on the issue that Rembrandt, as AT&T’s successor in interest to the relevant patent, owed Harris a FRAND license to essential patents.[[195]](#footnote-195) This ruling could potentially have helped standard adopters, but it quickly unraveled from there after a *Markman* hearing in the MDL suggested that the patent might be invalid, and the parties altered their theories in the Delaware proceeding accordingly. The Delaware court later vacated the earlier grant of partial summary judgment.[[196]](#footnote-196) Nonetheless, the court’s initial approach to the question of whether a successor in interest is bound by the previous owner’s FRAND commitment shows that courts may be receptive to contract-based arguments for the assignability of FRAND obligations, at least when, as here, the party seeking to enforce the FRAND commitment is a member of the SSO.[[197]](#footnote-197)

* + - * 1. Transferability of FRAND commitments in the EU

Though the post-assignment status of FRAND commitments is unclear under U.S. law, the European Commission (EC) takes a much stronger position about FRAND commitments and the transferability of FRAND commitments pertaining to essential patents. The EC approach to transferability, however, is more likely to focus on competition law than on contract law.

In 2001, the EC set out guidelines for applying European competition law to “horizontal cooperation agreements,” including SSOs.[[198]](#footnote-198) Specifically, paragraph 174 of the guidelines specifies that when industry actors work together to create a standard, “access to the standard must be possible for third parties on fair, reasonable and non-discriminatory terms.” Paragraph 285 of the “Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements” duplicates this language, also adding a recommendation that the FRAND commitment be binding against assignees.[[199]](#footnote-199) In 2009, the EC reacted favorably to IPCom’s agreement to abide by the FRAND commitment made by Bosch, its predecessor in interest to a number of SEPs.[[200]](#footnote-200)

As noted above, antitrust law in the United States takes a potentially more restrictive view of FRAND commitments than does European competition law. Thus, transferability of FRAND commitments under U.S. law currently turns on the application of contract law, with antitrust law largely not being as applicable. On the other hand, transferability of the same agreements in the EU will likely rely on European competition law, with some European jurisdictions taking a position against the third party beneficiary theory that allows for viable FRAND commitment enforcement under the formal contract law of the United States.[[201]](#footnote-201) In our view, a property-based approach may serve to unify both the U.S. and the E.C. on the issue of FRAND commitment transferability.

* + - 1. Formal contract law and the FRAND problems

Parties to a contract can generally agree to anything that doesn’t violate the law, isn’t contrary to public policy, and doesn’t render the contract so unfair as to be unconscionable. When a contract addresses all of the possible issues, and there is valid offer, acceptance, and consideration sufficient to support the formation of a contract, there would be no problem. However, there is currently no standard for standards – that is, SSOs adopt a wide variety of language as FRAND commitments, and there are many things that may be left out of these agreements.

The first problem that we introduced in the above Widget hypothetical concerned the enforceability of a FRAND commitment by a party who was not a member of the SSO. This issue will largely be influenced by the IPR policy of the SSO, and is likely to be resolved under contract law by reference to the third party beneficiary doctrine. The FRAND commitment is typically recognized as being a valid contract, and the potential licensee is a third party beneficiary of that contract. The Restatement (Second) of Contracts states that a party may be the intended beneficiary of a contract if the agreement indicates an intention to provide a right to the third party under the contract.[[202]](#footnote-202)

In our view, a FRAND commitment where the patent holder agrees to license on FRAND terms to anyone who intends to implement the standard clearly creates a category of intended beneficiary for all potential adopters of the standard. Thus, accepting that the agreement is a valid contract, and that potential licensees are the intended beneficiaries under the contract, there is a good legal basis for potential licensees bringing suit in court to enforce a FRAND commitment, whether they are SSO members or not. However, Lemley expresses concern that this broad interpretation of “intended beneficiary” as including non-members may be impermissible under contract law in the absence of explicit language in the FRAND commitment.[[203]](#footnote-203) An SSO can address this ambiguity by inserting language indicating that the FRAND commitment is intended to benefit all potential standard adopters, including non-members. If the Widget SSO adopted such language, the fact that Widgecom was not a member of the Widget SSO would clearly not prevent it from enforcing the FRAND commitment against parties who are otherwise bound by it.

Problem 2b of the hypothetical raises the issue of after-acquired patents. Assume that Gizmo, Inc. promised in 2010 to license patents on FRAND terms to adopters of the Widget standard, back when the only relevant patent held by Gizmo, Inc. was the 5 inch Widget-1A patent. In 2011, Gizmo, Inc. obtained Doodad LLC’s patent on the Widget-3 technology. Assuming that the FRAND commitment applies equally to “core” essential and “non-core” essential patents, can Widgetech and Widgecom demand the ability to negotiate for a FRAND license to the Widget-3 patent as well as the Widget-1A patent? This question of after-acquired patents is another issue that an SSO could address in advance in its IPR policy.

Of all of the options that we consider in this report, contract law is probably the best suited to address the problem of after-acquired patents. Contract terms that create an interest in after-acquired property are not new to the law. The branch of contract law concerned with commercial law and the UCC already addresses the issue of interests in after-acquired property.[[204]](#footnote-204) Specifically, Article 9 of the UCC allows for the creation of security interests in after-acquired collateral, such as if a small retail business obtained a loan from a bank, and in exchange for this loan, the business owner granted the bank a security interest in present and after-acquired inventory.

Security interests and FRAND commitments are similar to each other in a number of ways. First, both are promises relating to something that may not exist yet, and these promises are being offered as consideration for something desirable. With security interests, the promise is that the entity that makes a loan will have protection in the event that the borrower defaults.[[205]](#footnote-205) When a patent owner enters into an agreement with an SSO to license its patent on FRAND terms, this is often as a condition of the patent’s claims being adopted as part of the standard. The patents of mechanical devices are often not worth much on their own except as part of a larger product that relies on several technologies, but when a standard relies on a particular patent, that patent owner can then expect an increase in the demand for licenses.

Second, neither a security interest nor a FRAND commitment is a concrete thing, and neither would line up perfectly with contract law in the absence of specific provisions. If after-acquired collateral were not already an accepted premise in the law of secured transactions, loan terms allowing a lender to claim as yet undefined collateral might be argued as being vague and unenforceable under contract law. Similarly, a FRAND commitment to license as-yet-unacquired patents to undisclosed parties on undisclosed terms may lead to arguments from patent owners that the FRAND commitment is too vague to be an enforceable contract. This argument for unenforceability is likely to fail, because the modern rule of contract law permits parties to leave some terms subject to future determination, such as with references to a “reasonable market price.”

Problem 3 of the hypothetical poses the problem of the transferability of a FRAND commitment. Contract law focuses on mutual assent to contract terms, so in order for the FRAND commitment to apply to PatBuy, Inc., PatBuy would have to have agreed to be bound by this prior agreement. The current solution to the FRAND commitment transferability problem is for SSOs to address the transferability of the agreement in the initial contract with the patent owner. If the Widget SSO stated in its IPR policy that transfers *must* be made subject to the FRAND commitment, the focus would be on whether HF Gadget obtained the required consent to be bound. However, it is unclear what the proper recourse would be if a patent owner violated the terms of the SSO’s bylaws by failing to secure the assignee’s consent to be bound by the agreement. There may be a possibility of the implementers or the SSO holding the original patent owner liable for failure to abide by these terms, but even if damages could be obtained from the original patent owner, the implementers could probably not use the previous patent owner’s breach to compel a license from the current owner. In Section II.D.i, we discuss the differing approaches of four SSOs to the issue of FRAND commitment transferability.

With the exception of the patent transfer issue, the four main issues that we raised in the Widget hypothetical could be resolved through contract language, as long as the language wasn’t excessively broad or unreasonable. SSOs could impose a requirement that SEPs be transferred subject to the FRAND commitment made by the prior owner, but a breach of this term by the assignor likely could not be held against the assignee. The SSO could also make it explicit that the FRAND commitment is a promise to license on FRAND terms to *all* adopters of the standard, not just adopters who are also members of the SSO. The SSO could also include a provision addressing the after-acquired problem, explicitly stating that the FRAND commitment also applied to SEPs that the agreeing party obtained after entering into the agreement. Finally, the SSO could clarify whether the term “standard essential patent” includes “core” essential patents, “non-core” essential patents, and commercially essential patents. If the SSO considers commercially essential patents to be SEPs, the SSO should further clarify whether it is adopting a broad, intermediate, or narrow definition of commercial essentiality.

But to what end? Remedies under contract law are likely to focus on damages, but the court’s analysis will likely focus on the patent aspect of the case. In litigation where a patent infringement claim is met by a counterclaim that a failure to comply with a FRAND commitment amounts to a breach of contract, the remedy is still likely to focus on the patent. Thus, in Section V, we examine the options that a court might consider when determining the appropriate remedy for infringement of a SEP. For the purposes of this section, we note that the typical contract damages of expectation and reliance damages are likely to be difficult to calculate in the standards context, and even if a value was determined, pure money damages are likely to be less attractive than requiring the patent owner to grant a license permitting the contract beneficiary to manufacture a product and compete in the relevant market.

* + - 1. Applying detrimental reliance to the FRAND problems

Sometimes, the law of formal contracts will not be effective. While the third party beneficiary doctrine may protect standard adopters as the intended beneficiaries of a FRAND commitment, and the law of security interests provides helpful guidance for dealing with after-acquired patents, there are still gaps that formal contract law does not fill. For that reason, scholars like Lemley, Merges and Kuhn have suggested turning to an estoppel argument to permit standard adopters to argue that they relied to their detriment on the patent owner’s assertion that it would license on FRAND terms.[[206]](#footnote-206) A theory of detrimental reliance would focus on whether a specific agreement is binding against other entities outside the four corners of the agreement because of the expectation that the agreement creates for third parties. Contreras suggests that a detrimental reliance theory would be more helpful than formal contract theory when addressing FRAND commitment issues.[[207]](#footnote-207)

Detrimental reliance is often discussed in the context of implied licenses and equitable estoppel defenses in patent law,[[208]](#footnote-208) but for the purposes of this subsection, we are viewing detrimental reliance as an alternative to formal contract law. A detrimental reliance theory is likely to be more helpful than a formal contract theory in the case of patent transfers. Under formal contract law, the FRAND commitment would likely have to be accepted by the assignee for the agreement to be binding after the patent is transferred. On the other hand, a detrimental reliance theory is focused on the standard adopter’s investments in reliance on the availability of a license. In this situation, the standard adopter is fully willing to pay the cost of licensing, but in the interest of competition, may feel pressured to adopt the standard prior to solidifying a licensing agreement.

However, detrimental reliance is not perfect either. First, as Mueller notes, it may not be reasonable for parties who are not members of the SSO to rely on a patent owner’s promise to the SSO.[[209]](#footnote-209) In terms of addressing the problem of whether the FRAND commitment binds subsequent owners, detrimental reliance may suffer from the same drawbacks as equitable estoppel and implied licenses as defenses under patent law, because the assignee may have made no representations concerning licensing. And even if the detrimental reliance theory is effective at addressing some SEP licensing problems, it is unclear if the same theory could apply to non-core essential patents, commercially essential patents, or after-acquired patents. Detrimental reliance is also not likely to assist in the case of after-acquired patents, unless the previous owner made a FRAND commitment to the same SSO concerning that patent.

Ultimately, neither formal contract law nor detrimental reliance effectively addresses all of the primary problems that threaten to arise in the context of FRAND commitments. Contract law may assist with several of the problems, but contains no legal tools to enable a FRAND commitment to be binding against subsequent assignees in the absence of the assignee giving explicit consent to be bound. Considering how often patents are transferred, this threatens to reduce FRAND commitments to a meaningless formality that can be enforced against no one. At the most basic level of contract law, it does not seem like this would be a fair reading of the FRAND commitment, because an SSO would likely not require members to make a commitment that the SSO did not intend to have legal force. But the nature of contract law also would prevent a FRAND commitment from transferring to a subsequent assignee unless the assignee agrees to be bound by the commitment. During the development of a standard, if an SSO member refuses to make a FRAND commitment, the SSO will typically adopt an alternative technology and bypass the technology of the refusing member. An SSO that has already adopted a standard and now faces an assignee that refuses to commit to FRAND licensing has encountered a much bigger problem, because an entire industry may now be locked in to the version of the standard that includes the assignee’s patent.

Thus, we propose a fourth option for analyzing FRAND commitment problems: examining these problems through the lens of property law and servitudes, based on the theory that the FRAND commitment creates an encumbrance on the patent.

* + 1. *Property*

As discussed above, there are a number of fundamental flaws with relying on patent law, antitrust law, and contract law to address problems that might occur in the standards context. A final body of law that could potentially apply to these situations, though there has been no discussion of this option up to this point, is property law. But while the question of FRAND commitments has not been addressed using a property theory, there is a growing literature asserting that intellectual property licenses are analogous to traditional property rights.[[210]](#footnote-210) These arguments typically run counter to the traditional view of licensing as creating only a contract promising that the licensor will not sue the licensee for the licensee’s use of the intellectual property.[[211]](#footnote-211) In the following section, we argue that, like licenses, commitments to license have traits that resemble property interests. Both licenses and commitments to license create an encumbrance on the intellectual property owner’s right to exclude. The biggest difference between the two is the identity of the beneficiary. With licenses, it is clear who is favored by that encumbrance. With commitments to license, on the other hand, the encumbrance is the IP owner’s commitment to be open to future license negotiations and not refuse to negotiate with parties entitled to seek a license.

In Section IV, we examine the possibility that the law of real property can offer some useful analogies to buttress arguments that FRAND commitments “run with the patent.” For example, by treating FRAND commitments like servitudes, the main issue would become whether the assignee had notice of the agreement, rather than whether the predecessor in interest secured a commitment from the assignee to be bound by the agreement. It is to this new characterization of FRAND commitments that we now turn.

1. FRAND COMMITMENTS AND THE LAW OF TANGIBLE PROPERTY

“No one can doubt, that the convention for the distinction of property, and for the stability of possession, is of all circumstances the most necessary to the establishment of human society…”[[212]](#footnote-212)

Patents have aspects that resemble several different areas of law. Under U.S. patent law, patents are deemed to “have the attributes of personal property.”[[213]](#footnote-213) When a patent owner grants a license to another party, the license is often analyzed as a contract. Patent law also has flavors of tort law, with patent infringement claims being based on principles of strict liability. We noted above that there is currently a debate about the extent to which patent licenses should be viewed as property interests instead of purely as creations of contract. In our view, this argument has merit, but we view the property and contract traits of patent law as being interrelated, rather than a strict “either-or” matter. Contracts and property are not as independent of each other as the first year law school curriculum might suggest. As Newman observes, some typical contract language, like “title shall pass upon delivery,” focuses on legal consequences under property law and is impossible to breach.[[214]](#footnote-214)

A FRAND commitment is an enforceable contract, but it is also an enforceable contract that pertains to the treatment of intellectual property. While patents are statutorily decreed to have the attributes of personal property, Mossoff argues that historically, patents were treated as having attributes of both real property *and* personal property.[[215]](#footnote-215) It therefore might be instructive to analogize to real property in the case of standards and patent transfers. With real property, promises to do or not do something with the property may “run with the land.” Ultimately, however, intellectual property is a *sui generis* construction, and direct analogies may not always be accurate. While drawing comparisons to other types of property may be helpful, Menell warns there are still important distinctions between patents and tangible property.[[216]](#footnote-216) For instance, unlike land or personal property, a patent is nonrivalrous and thus can be used by many people at once. This fundamental distinction contributes to the difference between the more formalistic approaches to tangible property and the more flexible approaches to intellectual property.[[217]](#footnote-217) However, some property rights scholars argue that intellectual property rights share the same functionalist policy concerns as tangible property rights.[[218]](#footnote-218) Mossoff found that an examination of legal history supports this view, and argues that nineteenth century patent law in the United States reflects a judicial approach to patents that was much more similar to property law approaches than modern theorists believe.[[219]](#footnote-219)

* 1. Analyzing a Property Approach to FRAND commitments

Because we view a FRAND commitment as a prelude to a license, we begin this section with a discussion of how property theory has been applied to licenses, before treading into more theoretical grounds with discussions of the property-contract interface, informed by insights from the work of Hohfeld and more contemporary scholars like Merrill and Smith.

* + 1. *Licenses as Property*

Newman, a proponent of the property theory of IP licenses, acknowledges that licenses have traits of a contract and are often granted as part of a contractual relationship, but also observes that a license also shapes the allocation of resources, which is a fundamental concern of property.[[220]](#footnote-220) Some argue that a license should be viewed as a contract, not a property interest, based on the idea that a license is a “covenant not to sue.” As Newman critically observes, at its core, this argument relies on a view that what the licensee is doing constitutes trespass or infringement, and is only permitted because the licensor made a promise beforehand not to sue the licensee.[[221]](#footnote-221) After all, if the action of the licensee was not still a violation of the licensor’s rights, a promise not to sue would be unnecessary. Thus, asserting that a license is a promise not to sue implicitly assumes that a license contract does not create a privilege to use the licensed property,[[222]](#footnote-222) which is not logically sound. Newman argues that this approach is also not reconcilable with the aspect of copyright law that allows multiple co-owners the power to grant nonexclusive licenses without obtaining the consent of the other owners,[[223]](#footnote-223) or with the fact that revocable licenses can be created without contract formalities.[[224]](#footnote-224)

The idea that a patent license is a “covenant not to sue” is a very old one that represents the view of federal courts for over a century.[[225]](#footnote-225) However, this does not mean that courts view patent licenses as purely creatures of contract. This position is based on an even older view of patents themselves: that obtaining a patent does not give the owner a right to practice the invention, but instead gives the owner a right to exclude everyone else from practicing the invention without the owner’s permission.[[226]](#footnote-226) The patent is thus a “right against the world,” like other property rights. An assignment of a patent involves a full transfer of this right, whereas a patent license involves transfer of a lesser interest.[[227]](#footnote-227) As Mossoff’s research shows, patent case law in the United States has long recognized that patentees could convey lesser interests in the patent, and that the recipient of these lesser interests may be liable if they exceed the scope of these interests.[[228]](#footnote-228) Newman observes that as a legal instrument that permits use of a resource in a way that would otherwise be a trespass, a license can thus be understood as a use privilege similar to other recognized property interests.[[229]](#footnote-229) Thus, even if patent licenses are viewed as covenants not to sue, this does not prevent the license from also being a property interest.

This section extends this reasoning to FRAND commitments, arguing that FRAND commitments can be characterized as contractually created property interests in covered patents. We noted above that a patent license may be viewed as creating a use privilege. However, a FRAND commitment cannot be said to do the same thing. On the other hand, a FRAND commitment could fairly be categorized as creating a *negotiation* right to benefit the adopters of the standard, with the patent owner retaining a duty to not refuse to negotiate. A FRAND commitment is not a license, but when a patent owner makes a FRAND commitment, we argue that this acts as a conditional covenant not to sue, whereby the patent owner promises to not sue standard implementers for infringement *unless and until* good faith attempts at negotiation fail.

* + 1. *Hohfeldian Approaches to Jural Relations and the Intersection of Property and Contract*

Even though the career of Wesley Newcomb Hohfeld was short, he nonetheless made lasting contributions to the way that the language and philosophy of law are understood. Hohfeld’s 1913 article, “Some Fundamental Legal Conceptions as Applied in Judicial Reasoning,” sets forth a helpful guide for describing legal relations.[[230]](#footnote-230) This hundred year old article is so widely read and referenced that it landed a spot at number fifty in Shapiro and Pearse’s recent study ranking the one hundred most-cited law review articles.[[231]](#footnote-231)

In Hohfeld’s article, he abandons an attempt at formally defining each term and focuses on defining the terms as they relate to each other, focusing on the relations between the concepts of rights, no-rights, privileges, powers, immunities, duties, disabilities, and liabilities.[[232]](#footnote-232) Hohfeld noted that the term “right” is often used broadly to refer to privileges, powers, and immunities, but emphasizes that these ideas should be understood separately.[[233]](#footnote-233) Hohfeld pairs these eight concepts and indicates which are jural opposites of each other, and which are jural correlatives of each other. The jural opposite pairs are rights and no-rights; privilege and duty; power and disability; and immunity and liability; the jural correlative pairs are rights and duty; privilege and no-right; power and liability; and immunity and disability.[[234]](#footnote-234)

To say that rights and duty are jural correlatives of each other is to say that invading a right inherently involves the violation of a duty.[[235]](#footnote-235) Thus, a patent that gives its owner a right of exclusivity imposes on all others a duty to not infringe the patent. To say that duty and privilege are jural opposites of each other is to say that the privilege of doing a specific action negates the duty to not do a specific action.[[236]](#footnote-236) If a patent licensee has a privilege to use the licensed patent, this indicates that the licensee has no duty to refrain from using the patent. Rights and privileges are also related, in the sense that a *right* indicates an affirmative claim against another, whereas a *privilege* indicates “freedom from the right or claim of another.”[[237]](#footnote-237) Analogously, the word *power* is generally used to indicate that one person has affirmative control of a particular legal relation, whereas *immunity* indicates that one person has freedom from the control that another might otherwise exercise over a particular legal relation.[[238]](#footnote-238) Heled notes, however, that having an immunity from the power of another does not imply that a right to act has been conferred.[[239]](#footnote-239)

Newman notes that under traditional property law, a property owner can create use privileges, such as easements or licenses, and bestow these use privileges on another while otherwise retaining full ownership of the property.[[240]](#footnote-240) If A gives a use privilege to B that allows B to cross A’s land, this suggests that A has no right to interfere with B’s exercise of his use privilege. Use privileges can either be revocable or irrevocable. Let us again assume that A grants a use privilege to B. If A declares that B’s use privilege is irrevocable, this will generally mean that if A assigns his full interest in the property to C, then C will have no right to interfere with B’s existing use privilege.[[241]](#footnote-241) However, use privileges are likely not be irrevocable unless the property owner states that they are.[[242]](#footnote-242) In Hohfeldian terms, an irrevocable license may be understood as granting the licensee immunity from revocation,[[243]](#footnote-243) which is the same thing as saying that the licensor has no power to revoke the license.[[244]](#footnote-244)

By the license itself being a use *privilege*, this suggests that the licensee obtains a privilege to use the property, whereas the property owner has a *no-right* and cannot prevent the use by the licensee.[[245]](#footnote-245) An irrevocable patent license thus creates a use *privilege*, and the patent owner has *no right* to interfere with the licensee’s use. Several courts have noted that the FRAND commitment imposes on the patent owner a *duty* to negotiate, and through Hohfeldian analysis, this means that there is a correlative *right* to negotiation that is held by the potential licensee. Thus, an irrevocable license creates a use privilege with which the patent owner has no right to interfere, and a FRAND commitment bestows on the standard adopter a right to negotiate that the patent owner has a duty to recognize.

Having established that the FRAND commitment creates a right for the benefit of the potential licensee, we turn next to the characterization of this right. In a later article, Hohfeld recognizes two categories of rights: *in rem* and *in personam*.[[246]](#footnote-246) A conclusion that FRAND commitments create an in personam right would be consistent with a conclusion that contract law should govern, while a conclusion that FRAND commitments create an in rem right would be consistent with a conclusion that property law should govern.

Hohfeld refers to in personam rights as “paucital rights,” and to in rem rights as “multital rights.”[[247]](#footnote-247) Merrill and Smith provide a very helpful and detailed analysis of in rem and in personam rights as discussed by Hohfeld, and the overlap between these ideas in the modern context.[[248]](#footnote-248) Rights in rem may pertain to tangible objects, but they may also pertain to intangibles, like patents or a right to privacy.[[249]](#footnote-249) Rights that are “in rem” are typically viewed as being binding against the rest of the world, creating negative obligations preventing everyone else from taking particular actions.[[250]](#footnote-250) Rights that are “in personam” are typically viewed as being binding against only definite parties, creating affirmative obligations that require the specified parties to take affirmative actions.[[251]](#footnote-251) In rem rights are generally associated with a limited number of forms that the rights can take, while in personam rights are associated with flexibility and default rules.[[252]](#footnote-252) In personam rights impose a large informational burden on a small class of actors with very little effect on third parties, while the exclusion strategy of in rem rights imposes the informational burden on a large undefined class.[[253]](#footnote-253)

To mitigate the harmful effects of the informational burdens, Merrill and Smith note that the law typically uses either a notice strategy or a protection strategy.[[254]](#footnote-254) A notice strategy focuses on facilitating the generation of information about the relation, while a protection strategy involves specific legal interventions, like default rules, designed to favor the uninformed party.[[255]](#footnote-255) Merrill and Smith suggest that notice and protection strategies could be permitted to overlap, such as in the case of a notice strategy that includes a penalty default rule favoring the nontransferring party if there is a failure to disclose.[[256]](#footnote-256) Notice strategies are typically associated with in rem relations, while protection strategies are typically associated with in personam relations. Notice and protection strategies can already be seen in the private governance structures of SSOs. Many SSOs, for example, require members to disclose essential patents that the members own.[[257]](#footnote-257) The disclosure rule acts as a notice strategy that aims to put adopters on notice of the rights of others. A number of SSOs also make records of FRAND commitments publicly available. In the case of IEEE-SA, the member’s Letter of Assurance concerning IP rights is posted on the organizations website, thus serving a notice function.[[258]](#footnote-258) Some SSOs, such as VITA, go further and specify that a member who fails to disclose a SEP would then be required to license that patent on a FRAND-RF basis.[[259]](#footnote-259) This type of FRAND-RF rule could be fairly characterized as a protection strategy that favors the party who has an informational disadvantage.

As noted above, SSOs may handle FRAND commitments through a combination of notice and protection strategies. As we examine below, there are many more examples of instances where FRAND commitments behave like contract interests and property interests. This overlap is consistent with the theories of Merrill and Smith, who observe that some things can be purely in rem, others purely in personam, but that some legal situations demonstrate a mixture of the two concepts.[[260]](#footnote-260) Merrill and Smith thus propose that there are four primary categories of rights: pure paucital rights, compound-paucital rights, quasi-multital rights, and pure multital rights.[[261]](#footnote-261) As discussed above, in personam, or paucital rights avail against singular identified persons, while in rem, or multital rights avail against numerous unidentified persons. These two factors, numerosity and identification, also combine into two other possible intermediate characterizations. Merrill and Smith view compound-paucital rights as availing against numerous identified persons, whereas quasi-multital rights avail against singular, unidentified persons.[[262]](#footnote-262) According to Merrill and Smith, an example of a compound-paucital situation is a standard form contract, where the possible people bound by the agreement are numerous and definite; and an example of a quasi-multital situation is an assignment of interest, where the possible people bound by the agreement are nonnumerous but indefinite.[[263]](#footnote-263) Even though “in personam” and “contract” are not synonyms, nor are “in rem” and “property” synonyms, for our purposes, we consider compound-paucital rights to be “contract with property traits” and quasi-multital rights to be “property with contract traits.”

Merrill and Smith’s characterization of intermediate rights in the property-contract interface has proved very important in developing our own theory for characterizing FRAND commitments, which we quickly recognized were creations neither purely of contract nor purely of property. In the study by Merrill and Smith, the authors examined four separate areas of law that cannot clearly be characterized as purely in rem or purely in personam: bailments, landlord-tenant law, security interests, and trusts.[[264]](#footnote-264) In our view, the treatment of patents in the standard-setting context is a fifth area where the rights cannot be characterized as solely in rem or solely in personam. When a patent is declared essential to a standard, the patent owner has in rem rights which the law must protect against a large and indefinite class of potential infringers, and all of the adopters of the standards have a duty to respect the IP rights of those who own SEPs. When a patent owner enters into a license with a standard adopter, this creates an in personam relation with affirmative obligations exchanged between defined parties.

We argue that a FRAND commitment also has traits of both property and contract. By promising to license SEPs on FRAND terms to eligible parties, a patent owner takes on specific duties with regard to a large, undefined class of standards adopters. In other words, the right created by the FRAND commitment avails against a singular, identified person. This makes the FRAND commitment seem like an instrument that creates in personam rights. But unlike a typical in personam situation, where both sides of the agreement are identified, FRAND commitments involve a singular, identified party who has a duty under the commitment, and a numerous class of unidentified parties who have a right under the commitment.

This facet prevents FRAND commitments from fitting easily into either Hohfeld’s primary categories or Merrill and Smith’s intermediate categories. Merrill and Smith arrive at their intermediate categories by characterizing Hohfeld’s approach as focusing on two things: the numerosity of duty holders, and the definiteness of duty holders.[[265]](#footnote-265) It may thus be helpful to add two more categories to the theoretical approach of Merrill and Smith: numerosity and definiteness of the right holders. In a typical in rem relation, the right holder will be nonnumerous and definite, while the duty holder will be numerous and indefinite. A FRAND commitment is a reversal of this, with a nonnumerous and definite duty holder, and a numerous and indefinite class of right holders. We argue that this gives the FRAND commitment itself some qualities of both property and contract.

The intermediate nature of the FRAND commitment is also apparent when a patent is transferred subject to a FRAND commitment. In that case, the patent owner against whom these rights may be asserted is unknown, giving the transfer traits of a quasi-multital relation. The class of potential licensees still has a negotiation right, but the right now avails against a singular, unidentified person. To protect FRAND commitments when patents are transferred, either a notice or protection strategy may be appropriate. In the case of patent transfers, a notice regime that provides for mandatory recordation of assignments might be effective at reducing the informational burden when the potential licensees must determine the current owner of an essential patent.

In this subsection, we have taken the view of a license as a use privilege, and extended it to conclude that a FRAND commitment is a negotiation right. This right creates a corresponding duty to not interfere with the authorized activity. The FRAND commitment can either be characterized as a contract with property traits or as property with contract traits. Building on the theories of Hohfeld and the work of Merrill and Smith, we argue that under some circumstances, it is appropriate to take a property-based approach to FRAND commitments and patent transfer issues in the standards context. As this section shows, viewing FRAND commitments through the lens of property interests is part of a logical progression building on work concerning the intersection of property and contract. Having established the theoretical underpinnings, we turn now to the more concrete application of the law of servitudes.

* 1. Analogizing to the Law of Servitudes

There are several defined interests in real property law, including fee simple estates, life estates, and leaseholds. In addition to these, there are also interests created by the law of servitudes, through which interested parties make land use arrangements based on private agreements. Servitudes are non-possessory property interests by which the holder gains a right in an asset, and servitudes are generally enforceable against successors in interest.[[266]](#footnote-266) There are four general categories of servitudes: easements, profits, licenses, and covenants. Covenants can either be real covenants or equitable servitudes, depending on how they are enforced, but the Restatement (Third) of Property (Servitudes) indicates that there is no longer a significant difference between real covenants and equitable servitudes.[[267]](#footnote-267) Equitable servitudes arose under English common law. Analysis often traces their development to *Tulk v. Moxhay*, an 1848 case concerning an encumbrance on a lot in Leicester Square, where the Chancery Court concluded that the prior restrictions ran with the land, provided the subsequent purchaser had notice of these restrictions.[[268]](#footnote-268)

The primary hurdle to analogizing to servitudes is that patents are treated as having the attributes of personal property, and servitudes on personal property are generally disfavored in the law, though Van Houweling argues that such servitudes may be permissible.[[269]](#footnote-269) Van Houweling notes that the law of servitudes has become more liberalized over the years, though this liberalization has primarily focused on servitudes in real property.[[270]](#footnote-270) When cases have considered servitudes on personal property, such as use restrictions, these cases have often been analyzed under competition law.[[271]](#footnote-271) There have also been use restriction cases focusing on IP rights that emphasized the first sale doctrine of copyright law and the exhaustion doctrine of patent law.[[272]](#footnote-272) Van Houweling’s work focuses on use restrictions in items embodying IP to argue that the liberalization of servitudes should apply to personal property, specifically in the case of End User Licnsing Agreements (EULAs). We argue that Van Houweling’s reasoning can also be extended to the negotiation rights that we propose are created by FRAND commitments.[[273]](#footnote-273) Compared to Van Houweling’s argument for viewing EULAs as creating servitudes, the informational burden is likely less significant if FRAND commitments are viewed as creating a servitude-like interest that runs with the patent, because patent licensees and assignees arguably already have more incentive to read contract terms than individual purchasers of consumer software.

A servitude theory of FRAND commitments would also assist in addressing problems that might arise in the bankruptcy context. Under the Restatement, servitudes are explicitly noted as not being dischargeable in bankruptcy.[[274]](#footnote-274) Viewing FRAND commitments as creating servitude thus helps fill in a gap within bankruptcy law, where even though a licensee is given the power to elect to retain their license, a FRAND commitment would likely be treated as less than a license unless the bankruptcy court explicitly stated otherwise, as in the case of *Nortel Networks*. If treated as creating a servitude, a FRAND commitment may more easily survive bankruptcy without extra steps being required of the bankruptcy court.

One last general advantage that should be noted for a servitude theory is the available remedy. By applying property law, the possibility of specific performance becomes viable for holders of the FRAND commitment-derived negotiation right. This specific performance, however, does not require the patent owner to grant a license immediately, but rather requires the patent owner to give the holder of the negotiation right the opportunity to negotiate for a license that meets specified parameters. Thus, the remedy for a violation of the FRAND commitment is that the patent owner cannot play the patent holdout game. The fact that this specific performance will end with the holder of the negotiation right paying royalties to the patent holder does not matter in our view. It is often the case that servitudes in real property are acquired through purchase, sometimes through recurring payments.[[275]](#footnote-275)

As we noted above, other areas of law do not seem to fully address some of the legal issues that are raised by FRAND commitments. If we analogize FRAND commitments to creating entitlements similar to those created under the law of servitudes, this greatly simplifies the issue of FRAND commitment transferability, though application of contract law principles for the other FRAND problems is likely still desirable.

* + 1. *Servitudes and Transfers*

The most significant effect of adopting a servitude theory is that it would make it clear that, as a negotiation right with traits of property, FRAND commitments survive transfers. We begin this analysis with further discussion of benefits and burdens.

The law of servitudes focuses on benefits and burdens that are either appurtenant or in gross. To say that a burden or benefit is “appurtenant” means that it is “tied to ownership or occupancy of a particular unit or parcel of land.”[[276]](#footnote-276) A burden or benefit that is “in gross,” on the other hand, is not tied to such ownership or occupancy.[[277]](#footnote-277) The law of servitudes allows an appurtenant benefit or burden to transfer automatically with the property interest.[[278]](#footnote-278) For example, if a large parcel of land is subdivided into multiple lots, only one of which faces the main road, an appurtenant easement will likely be created by the landowners, who will then construct a driveway perpendicular to the main road to reach the back lots. This appurtenant easement would thus give access to the main road to owners of lots that are not adjacent to the road by creating a right of way across parcels owned by others. According to the Restatement (Third) of Property (Servitudes), benefits in gross were historically prohibited, as were benefits created in third parties.[[279]](#footnote-279) However, the modern rule according to the Restatement permits both of these, and also allows for a burden to be appurtenant while a benefit is in gross.[[280]](#footnote-280)

The issue of transferring the burden created by the FRAND commitment is almost completely resolved if we view the FRAND commitment as creating an appurtenant burden and a benefit in gross. Rather than requiring an active acceptance on the part of the assignee, as is likely the case under a formal contract law approach, an appurtenant burden can be binding on an assignee automatically, though the transfer of the burden will require the assignee to be on notice of the FRAND commitment. Because a property interest theory would rely on notice for a burden to transfer, rather than assent to the agreement as would be required for a contract to transfer, a servitude approach could resolve the problem of how to ensure that these agreements are binding against new assignees. If an assignee does not explicitly consent to the agreement, but has actual or constructive notice that he is acquiring a SEP, this property theory could help avoid “innocent purchaser” defenses raised by assignees that seek excessive royalties for newly acquired SEPs. In other words, provided there is constructive or actual notice, the agreement will “run with the patent” and prohibit excessive rent-seeking behaviors on the part of new assignees.

The nature of the interest created also gives the property theory an advantage over a detrimental reliance theory. With detrimental reliance, the interest is created based on the actions of the patent holder and the standard adopter. When a property interest is properly created, on the other hand, the interest will exist independently of the actions and perceptions of the patent holder and standard adopter. Thus, the burden for establishing a negotiation right is potentially easier to demonstrate with the property theory than it is when applying a detrimental reliance theory.

It is true that a patent is generally not being transferred when a FRAND commitment is made. But there is no property transfer when a servitude is created either, just the creation of a use privilege. An illustration in the Restatement (Third) of Property: Servitudes provides a strong justification for our analogy to apply in this case. Illustration 2 of Section 2.6 explains the current law of benefits in gross as follows:

As a condition of granting planning approval, the City of X requires Developer, the owner of Blackacre, to execute an agreement limiting the density of development on Blackacre. The agreement states that the burden shall run with Blackacre and the benefit shall be held by the City in gross. The agreement creates a servitude burdening Blackacre. The City of X holds the benefit in gross.

This illustration offers an excellent analogy to the transfer of SEPs subject to FRAND commitments. Borrowing the above language, the FRAND commitment problem with SEPs and the corresponding solution from adopting the law of servitudes can be described as follows:

As a condition of [including the patent owner’s patent in the standard under development], the [standard-setting organization] requires [the owner of Patent X] to execute an agreement limiting [licensing agreements to fair, reasonable, and nondiscriminatory terms]. The agreement states that the burden shall run with [Patent X] and the benefit shall be held by [implementers of the standard] in gross. The agreement creates a servitude burdening [the owner of Patent X]. The [SSO and implementers of the standard] hold[] the benefit in gross.

The possibility for servitudes to have an appurtenant benefit *or* a benefit held in gross also provides an opportunity for distinguishing between licenses and FRAND commitments. With a FRAND commitment, as discussed above, the benefit must be characterized as being held in gross. On the other hand, if a patent license also creates a servitude, we would characterize that servitude as having an appurtenant benefit. The consequence of this characterization may be that the party asserting his right to a benefit will more easily be able to prove the entitlement if the benefit is appurtenant instead of in gross.

Generally, FRAND commitments address the issue of the agreement being enforceable against successors in interest. However, these agreements generally do so under the theory that a FRAND commitment is governed solely by formal contract law, where consent to be bound will need to be obtained.[[281]](#footnote-281) If consent to be bound is not obtained, the assignor may have violated the agreement with the SSO, but the assignee has committed no wrong. If FRAND commitments can be viewed as creating a property interest analogous to interests created under the law of servitudes, this could resolve many of the problems that arise in the context of transferring SEPs.

* + 1. *Servitudes and Essentiality*

In the law of servitudes, there is a concept called a servitude by necessity. A servitude by necessity may be created by implication when the absence of such a servitude would deprive one party “of rights necessary to reasonable enjoyment of the land.”[[282]](#footnote-282) One might argue that the existence of a standard suggests a servitude by necessity for companies that need to implement the standard to remain competitive. This theory might even work in the absence of FRAND commitments, at least for technologically essential core patents. However, if a servitude theory is adopted, there would likely not be a servitude by necessity for non-core or commercially essential patents.

On the other hand, there is no barrier under property law to expanding the scope of a servitude by agreement. We expect that an encumbrance could be created by express agreement in core, non-core, and commercially essential patents. However, the application of the agreement to non-core or commercially essential patents would need to be explicit in the contract, as courts would likely be hesitant to adopt broad readings of FRAND obligations either under a servitude or formal contract theory. Once created though, the express servitude in non-core or commercially essential patents would be subject to the same transfer rules as core essential patents.

* + 1. *Servitudes and the Member-Nonmember Question*

Like formal contract law and the idea of intended beneficiaries, the law of servitudes permits the benefit of a servitude to be created in a third party.[[283]](#footnote-283) Formal contract law, however, does not include the concept of a “contract benefit held in gross.” The idea of a “benefit in gross” assists not only in addressing the transfer issue, but also in addressing the question of whether FRAND commitments are enforceable by nonmembers. If the benefit of a FRAND commitment is understood to be held in gross for standard implementers, it will not matter whether the implementer is a member of the SSO. Thus, a servitude approach could resolve the member-nonmember issue. However, this will likely rely on the SSOs to not include limiting language that restricts the FRAND obligation to member licensees, so again, the contract language of the IPR policy will govern.

* + 1. *Servitudes and After-Acquired Patents*

Because our property theory relies on the idea that the servitude attaches to the specific patent at the time of the FRAND commitment, it is unlikely that a property theory would assist with the problem of after-acquired patents. Thus, a contract theory analogizing to the law of secured transactions would likely still be necessary to address after-acquired patents.

* + 1. *Invalidating Servitudes*

According to the current Restatement, servitudes are valid unless illegal, unconstitutional, or contrary to public policy.[[284]](#footnote-284) Under the Restatement, a servitude may be contrary to public policy if the servitude: 1) is arbitrary, spiteful, or capricious; 2) is unreasonably burdensome of a fundamental constitutional right; 3) unreasonably restrains alienability; 4) unreasonably restrains trade or competition; or 5) is unconscionable.[[285]](#footnote-285) A patent owner looking to invalidate a servitude created by a FRAND commitment may argue that the agreement imposes an unreasonable restraint on alienability, but we expect that this argument would fail. The applicable restriction on alienability is addressed in Section 3.5 of the Restatement, which says that indirect restraints on alienation do not cause a servitude to be invalidated. Under the Restatement, an indirect restraint may include use limitations, reducing the realizable amount from transferring the property, or some other act that reduces the property’s value. We would thus characterize the restriction on acceptable royalties imposed by a FRAND commitment as an indirect restraint on alienation that would not affect the servitude’s validity.

On the other hand, requiring a PAE to be bound by a FRAND-RF agreement could arguably be contrary to public policy as a restraint on the trade of this entity, if licensing patents is its sole business model. As noted above, some of the litigation that arises in the FRAND and SEP transfer context involves patents that were obtained by PAEs with this sort of business model. In these situations, if the agreements with the SSO required FRAND-RF agreements, thus depriving the PAE of any income from the patent that they likely purchased as part of a patent portfolio, this total loss of value might amount to an unreasonable restraint on alienation or an unreasonable restraint on trade. However, a PAE that found itself subject to a servitude created by a FRAND commitment could still obtain some value from the patent in its possession, and thus the servitude would probably be valid.

* + 1. *Adopting a Servitude Doctrine*

As noted above, servitudes in real property can be traced back to English common law and the seminal case of *Tulk v. Moxhay*.[[286]](#footnote-286) We thus note that legislative intervention would not be necessary to create a legally binding servitude approach to FRAND commitments. Such an approach could instead be adopted in case law by a court that recognizes the need for FRAND commitments to “run with the patent.” This would be consistent with how servitudes arose in property law.

In fact, there is some evidence that such a step would be a natural progression in terms of how courts currently view the transferability of FRAND commitments. Consider, for example, the 2008 ruling in *Rembrandt v. Harris*. The ruling is unpublished, and was later reversed for reasons unrelated to the court’s initial conclusion on this point, but the Delaware court there stated that "[A]ccording to the clear and unambiguous terms of the 1995 patent statement issued by Rembrandt's predecessor, AT & T, Rembrandt owes Harris a license to the ′627 patent under RAND terms to the extent the patent is ‘essential’ to the implementation of the HDTV standard set by the Advanced Television System Committee (“ATSC”)."[[287]](#footnote-287) The “patent statement” in that case is what we have characterized as a FRAND commitment, and under the patent statement, AT&T committed to granting nonexclusive licenses authorizing the use of essential patents in exchange for a reasonable royalty.[[288]](#footnote-288) AT&T later assigned the patent to Rembrandt. The court noted that Rembrandt had *notice* of the patent statement and was thus bound by it to the extent that the patent in issue was essential.[[289]](#footnote-289) There, the court characterized Harris’s right to a license as “a creature of contract,” suggesting that the contract theory of FRAND commitments is what makes this patent statement binding on Rembrandt.[[290]](#footnote-290)

But is calling it a “creature of contract” really a fair characterization of what is going on here? How often does contract law focus on notice when determining if a contract is enforceable against a nonparty? Certainly, as discussed above, there is plenty of support for the idea that a nonparty to a contract may be a third party beneficiary who is entitled to enforce the contract in appropriate circumstances. But outside specific exceptions, like binding a principal to a contract that an agent entered into on the principal’s behalf,[[291]](#footnote-291) a trustee’s assumption of a contract during bankruptcy proceedings,[[292]](#footnote-292) and using principles of equitable estoppel to prevent a party from claiming the benefits of a contract while denying burdens under the same contract such as arbitration provisions,[[293]](#footnote-293) contract law typically relies on mutual assent in order to obligate a party to take on contractual burdens. So while the patent statement made by AT&T was a contract, this alone would likely not be enough to obligate Rembrandt to license the essential patents on FRAND terms – *unless* the contract is understood as creating an encumbrance that *runs with the patent*.

The court in *Rembrandt* explicitly relied on Rembrandt’s having notice of the patent statement in concluding that Rembrandt was bound by the patent statement.[[294]](#footnote-294) This position is a direct echo of *Tulk v. Moxhay*, where that court asserted that “if an equity is attached to the property by the owner, no one purchasing with notice of that equity can stand in a different situation from the party from whom he purchased."[[295]](#footnote-295) In the language of *Tulk v. Moxhay*, the FRAND commitment is an instrument by which the patent owner attaches an “equity” to the patent. *Tulk v. Moxhay* involved the creation of an entirely new legal doctrine for allowing encumbrances on real property to run with the land, and it is a seminal case that the majority of first year Property courses discuss. But when the Delaware court used very similar language, it was just a “creature of contract.” We expect that the *Rembrandt* court felt constrained to use the contract theory, so while the analysis tangentially alluded to a servitude theory of FRAND commitments, the court did not take the analysis one step further to explicitly recognize the FRAND commitment as creating a property interest.

Discussion of cases involving patent transfers thus hints at an undercurrent of servitude theory, and we argue that there should be formal recognition of the property theory that we advance for understanding the nature of the encumbrance created by the FRAND commitment. We urge that courts should explicitly recognize that the FRAND commitment attaches to the patent, and that the obligation to license on FRAND terms will run to subsequent assignees. Once courts explicitly recognize these commitments as attaching an encumbrance to the patent in a manner analogous to a servitude, the market will respond to the new legal certainty. Patent buyers will have an incentive to inquire into the existence of FRAND commitments as part of normal due diligence, and will price the offer accordingly. For example, a patent encumbered by a FRAND commitment will likely bring in licensing income. To the purchaser, a FRAND-encumbered patent may be worth less than an unencumbered patent that is currently being licensed, but more than an unencumbered patent that is not currently being licensed.[[296]](#footnote-296)

This new legal certainty is also desirable from a law and economics perspective. As Coleman notes in discussing the market paradigm, markets require contracting or exchange, and uncertainty threatens exchange.[[297]](#footnote-297) Coleman further observes that the appropriate application of law can reduce uncertainty and foster market cooperation.[[298]](#footnote-298) A clear definition of property rights and effective enforcement of contractual arrangements are two of the hallmarks of a robust economy.[[299]](#footnote-299) An understanding that FRAND commitments run with the patent creates an environment where investors are assured that these types of commitments will be enforced. Awareness of these carefully circumscribed property rights will then, as an ex ante matter, foster investment and support the adoption of the standardized technologies.

Because of the nature of the FRAND commitment, courts should consider principles of both property and contract law when resolving disputes. The effects of the commitment should largely be determined by the language of the contract, and many of the problems noted in this Article could be resolved by a sufficiently detailed IPR policy. But if a patentee could extinguish the benefits of a FRAND commitment by transferring the patent to a third party, this would lead to inequitable results. Once FRAND commitments are formally recognized as creating an encumbrance on patents that “runs with the patent” to subsequent assignees, this will add legal certainty to situations where SEPs are assigned. Because the modern economy involves the frequent transfer of intellectual property, we expect that increased certainty concerning the availability of licenses after an assignment will strengthen competition and the standard-setting process. However, this new legal certainty will need to be complemented by the certainty of license availability, which may be lacking if patent owners are permitted to seek injunctions for the infringement of SEPs. Thus, any efforts to improve legal certainty in the standards context must also consider the availability of injunctions as a remedy for patent infringement, a topic that we turn to next.

1. FRAND COMMITMENTS, INJUNCTIONS, AND LIABILITY RULES

We now turn to the fifth problem in our hypothetical: May a patent owner seek an injunction against the use of a SEP by a standard adopter? This analysis is typically shaped by the presence of a FRAND commitment; specifically, the extent to which a FRAND commitment affects the possibility of an injunction.

The wide availability of injunctions, formerly a hallmark of patent law, has become more restricted over the last seven years, as courts have narrowed the situations in which an injunction will be appropriate. The narrowing of the injunction standard is likely to be especially relevant when patent litigation concerns SEPs. In *Apple, Inc. v. Motorola, Inc.*, Motorola sought an injunction against Apple for infringement of the ‘898 patent.[[300]](#footnote-300) Judge Posner, sitting by designation, concluded that by making the FRAND commitment, Motorola “implicitly acknowledged that a royalty is adequate compensation for a license to use that patent.”[[301]](#footnote-301) The theoretical basis for this approach is examined in more detail in Section V.B. below.

Before *eBay v. MercExchange*, injunctions were frequently sought and obtained when a patent was found to be infringed.[[302]](#footnote-302) Injunction-seeking behavior was often motivated by the added leverage that an injunction gave its holder.[[303]](#footnote-303) For example, when NTP, Inc., a PAE, sued Research in Motion (RIM) for patent infringement, a jury initially awarded NTP $23 million in damages in November 2002.[[304]](#footnote-304) The damages award was followed by an injunction, which was stayed pending appeal, and was then vacated by the Federal Circuit.[[305]](#footnote-305) In February 2006, the litigation was still ongoing. The district court judge, impatient with the parties’ failure to negotiate, suggested that he was considering granting an injunction that would prohibit the U.S. sale of RIM’s Blackberry line of products.[[306]](#footnote-306) Settlement negotiations quickly concluded, with RIM agreeing to pay NTP $612.5 million in a full and final settlement with no provisions that might have required NTP to return the funds if the USPTO later invalidated the patents in issue.[[307]](#footnote-307) The threat of another injunction effectively turned a $23 million jury verdict into a $612 million payout.

* 1. Injunctions After *eBay v. MercExchange*

The patentee’s right to exclude has long figured importantly in the issue of injunctions in patent litigation.[[308]](#footnote-308) In May 2006, the Supreme Court decided *eBay v. MercExchange*, replacing the Federal Circuit’s injunction-friendly approach with the same four-factor test for injunctions used in non-patent litigation.[[309]](#footnote-309) Under *eBay*, a party seeking an injunction must show: irreparable injury; inadequacy of money damages; that an equitable remedy is warranted after considering the balance of hardships; and that a permanent injunction would not be harmful to the public interest.[[310]](#footnote-310) This has generally made it more difficult to obtain an injunction in patent litigation, with courts increasingly awarding ongoing royalties instead.[[311]](#footnote-311) Ongoing royalties are similar to compulsory licenses, except an ongoing royalty only applies to a particular set of defendants.[[312]](#footnote-312) Thus, a prevailing patentee might seek money damages for past infringement and ongoing royalties for future infringement, but is less likely to successfully obtain an injunction post-*eBay*.[[313]](#footnote-313) According to research by Chien and Lemley, before *eBay*, approximately 95% of requests for injunctions in patent cases were granted, but after *eBay*, this number was down to about 75%.[[314]](#footnote-314)

In the context of standards, it is likely that the four factors of *eBay* will weigh against an injunction, especially when a FRAND commitment exists.[[315]](#footnote-315) When the Ninth Circuit decided an interlocutory appeal in *Microsoft v. Motorola*, the Court noted in dicta that injunctive relief “is arguably a remedy inconsistent with the licensing commitment.”[[316]](#footnote-316) While the Ninth Circuit did not state its position on this matter as a legal conclusion, its choice of wording did provide some hints as to the Court’s position. In addition to noting that an injunction was “arguably” inconsistent with a FRAND commitment, the Ninth Circuit also noted that “it could well be” that the only remedy that a patent owner could seek consistent with FRAND commitments made to ITU would be for the court to set a reasonable royalty rate and have it apply retrospectively.[[317]](#footnote-317) Thus, if a patent owner sues a standard adopter for infringement, trends in case law in the United States suggest that a court that finds infringement might limit remedies to reasonable royalties, reasoning that injunctions are an inappropriate means of redress when the patent in issue is a SEP. A court that does so and orders payment of past royalties at a reasonable rate, as determined by the court, would effectively be enforcing the FRAND commitment by refusing the patent owner the option to deny a license.

In his concurring opinion in *eBay*, Justice Kennedy suggested that it might be inappropriate to grant injunctions “[w]hen the patented invention is but a small component of the product,”[[318]](#footnote-318) a condition that will almost certainly be met in the context of standards that read on dozens of individual patents. However, Merges and Kuhn question whether merely making it more difficult to obtain an injunction provides sufficient protection for good faith adopters of open standards, suggesting that it would be beneficial to address the public interest factor relating to standards earlier in litigation than *eBay* permits.[[319]](#footnote-319) But addressing the issue earlier in litigation will only benefit good faith adopters of standards if there is not an alternative to Article III courts that still provides a viable possibility of injunctions. As we discuss in Section V.C, the ITC offers just such an alternative.

Injunctions in the FRAND context are arguably very different from injunctions in typical patent litigation. Thus, we now turn to a theoretical analysis of the effect that FRAND commitments have on the entitlements held by the patent owner and prospective licensee.

* 1. Property Rules and Liability Rules

When the interests of two or more groups conflict, the government must generally decide which interest should be protected. As Calabresi and Melamed assert in their foundational article, entitlements may generally be protected by either property rules or liability rules.[[320]](#footnote-320) An injunction is an example of an entitlement protection under a property rule. In this framework, property rules are generally understood as conferring a right to exclude, whereas liability rules confer a right to be paid.[[321]](#footnote-321)

By analogizing to criminal sanctions, Calabresi and Melamed suggest that applying property rules can deter actions that society views as harmful in a way that liability rules would not. If a thief is caught and a liability rule is applied to only require the thief to compensate the victim for the value of the stolen item, this would convert all property rules into liability rules,[[322]](#footnote-322) in a regime where anyone could claim any property as long as he paid for it after the taking. Property rules may also be more efficient than liability rules when the lowest cost avoider is known.[[323]](#footnote-323) If a potential thief knows that he wants a specific item, he can attempt to negotiate with the rightful owner instead of stealing it, because the potential thief is the lowest cost avoider. But if an item is damaged or destroyed in an accident, a liability rule to compensate the owner would be appropriate. In this case, a property rule would be inefficient, because that would require parties to negotiate value before an unforeseen accident.[[324]](#footnote-324)

While the certainty of liability rules may be desirable in the case of patents, Calabresi and Melamed’s analogy to criminal sanctions may be instructive. Though injunctions in patent cases may be harmful, it may be in the best interests of society to preserve injunctions in egregious cases of willful infringement. It may also be socially desirable to preserve the availability of injunctions in the standards context in very limited circumstances, such as when the implementer of the standard refuses to pay for a license.[[325]](#footnote-325)

Some argue that in the context of IP, property remedies like injunctions or exclusive rights may promote settlements and efficiency, though Menell warns that such remedies may also lead to inefficiencies and holdout under some circumstances.[[326]](#footnote-326) In our view, the standards context would likely fit Menell’s characterization of circumstances where exclusivity may be undesirable. The potential harm to consumers in the form of increased prices and enforced injunctions persuades us to argue against injunctions as a general rule, especially in the context of standards. This conclusion is also supported by Reichman’s reasoning in his widely cited article on liability rules in hybrid intellectual property systems, where Reichman urged that a liability rule would be more appropriate than an exclusionary property rule in the context of technical standards.[[327]](#footnote-327)

Burk’s analysis of property and liability rules in the intellectual property context examines four possible allocative rules,[[328]](#footnote-328) which we summarize in the below table:

|  |  |  |
| --- | --- | --- |
|  | **Property Rule** | **Liability Rule** |
| **Owner has entitlement** | Owner needs exclusivity  Injunction against infringer | Damages are adequate  Infringer must pay owner damages |
| **Potential infringer has entitlement** | No infringement, or infringer is prior user  Non-owner may continue use | Reverse liability  Owner may pay damages to non-owner, non-owner will halt the use |

In typical patent litigation, where the patent owner practices the patent and needs exclusivity, protection by a property rule in the form of an injunction may be appropriate in some circumstances. However, in the standards context, we argue that a patent owner who has made a FRAND commitment has essentially stated that, as to their SEPs, damages will be adequate. This type of reasoning can also be found in multiple recent cases concerning FRAND commitments.[[329]](#footnote-329) Thus, by making the FRAND commitment, the SEP owner has waived a claim to using a property rule to preserve exclusivity. The FRAND commitment can thus be said to have converted the property rule into a liability rule, under which the patent owner would be entitled to money damages, but not an injunction, when the owner asserts his rights in the patent.

The lower right cell’s “reverse liability” rule may be illustrated by property cases about moving to the nuisance.[[330]](#footnote-330) In such a case, the party that causes the nuisance is entitled to payment from the injured party for the cost of abating the nuisance.[[331]](#footnote-331) Burk suggests that a reverse liability approach could potentially apply in the standards context if a court focused on a breach of the FRAND commitment as the injury instead of focusing on patent infringement. If a court found both that a FRAND commitment was breached *and* a patent was infringed, instead of requiring the infringer to pay ongoing royalties, the court might choose to require the patent owner to compensate the infringer for the cost of adopting a non-infringing alternative. In normal patent infringement cases, we do not think this option would be appropriate, since it requires the patent owner to pay for the right to exclude after having already paid to develop the technology and obtain the patent. However, Burk suggests that a reverse liability rule may provide a deterrent effect for abusive use of a SEP in the case of standards.[[332]](#footnote-332)

While it may sound good in theory, a reverse liability rule would likely not work in practice, even in the context of standards. If the patent owner were required to pay the infringer for the cost of designing around the patent, this would be very impracticable on several levels. First, such a design around may not even be feasible. Second, such a payment may effectively amount to the SEP owner paying off a competitor to exit the market for the standardized good, which may raise antitrust concerns. Third, the payment is likely to be so high that no reasonable SEP owner would be interested. Thus, a reverse liability theory would likely not have any lasting impact in the context of SEPs, and the effect of a FRAND commitment would be limited to converting the property rule into a liability rule.

Even if FRAND commitments are understood as converting a property rule favoring injunctions into a liability rule where only damages may be sought, this conversion would likely only occur in traditional court settings. We turn now to the existence of different kind of injunction, an exclusion order, that remains available to patent holders.

* 1. ITC Exclusion Orders

In *eBay*, the Supreme Court overruled the Federal Circuit’s “general rule” that permanent injunctions should issue in patent cases unless there were “unusual circumstances” such that denial of an injunction was necessary to protect the public interest.[[333]](#footnote-333) However, this general rule still survives elsewhere in patent-related litigation: the ITC. The ITC is not discussed as often in patent literature as litigation before Article III courts, but Chien and Lemley provide a detailed analysis of patent disputes before the ITC in their 2012 article.[[334]](#footnote-334)

The ITC allows patent owners to seek exclusion orders under Section 1337 of Title 19.[[335]](#footnote-335) According to the Federal Circuit, as a non-Article III court, the ITC is not bound by the equitable test of *eBay*.[[336]](#footnote-336) Under Section 1337, if the ITC determines that the section has been violated, the articles concerned *shall* “be excluded from entry into the United States,” *unless* an exception applies.[[337]](#footnote-337) Thus, the burden is inverted. In Article III courts, *eBay* puts the burden on the patentee to establish that an injunction would not violate the four factors, whereas in cases before the ITC, the infringer carries the burden of establishing that an exclusion order would be too harmful.

The ITC’s standard resembles the pre-*eBay* standard of the Federal Circuit, which required a showing of exceptional circumstances to support *not* granting an injunction. Adequacy of money damages is not considered by the ITC, likely in part because the ITC cannot award damages.[[338]](#footnote-338) The presence of irreparable injury and the balance of the hardships between the patent owner and the infringer are also not factors before the ITC, which instead focuses on several categories of harm that we would characterize as public interest harms: 1) public health and welfare; 2) competitive conditions across the whole U.S. economy; 3) whether directly competitive articles are produced in the United States; and 4) the effect on U.S. consumers.[[339]](#footnote-339) However, the ITC generally has only rarely found that public interest factors weigh against an exclusion order, and in these cases, the products in issue were necessary for a purpose related to health and welfare, *and* there was no other supplier who could meet the demand in a reasonable time period.[[340]](#footnote-340) Chien and Lemley found that in the ITC, relatively little emphasis has been placed on competitive conditions or harm to consumers as factors that might weigh against an exclusion order.[[341]](#footnote-341) Thus, while the presence of patents in standards might weigh against granting an exclusion order, the ITC’s current lack of emphasis on these two factors may make it more difficult to avoid an exclusion order, even in the standards context.[[342]](#footnote-342)

Thus, while *eBay* seemingly offers some protection against injunctions for adopters of a standard when the litigation is in an Article III court, the ITC continues to grant exclusion orders as its sole statutorily authorized method of indicating that a patent owner’s exclusive rights have been violated. The ITC’s approach to patents in the standards context should be revised. We are in favor of the approach promoted by the DOJ and USPTO in a letter to the ITC dated January 8, 2013, wherein the two agencies make a joint recommendation that exclusion orders should not be granted in the case of SEPs unless the putative licensee has refused to pay any royalties.[[343]](#footnote-343)

In our view, neither injunctions nor exclusion orders should be available to patentees bound by a FRAND commitment unless extreme circumstances exist. For example, if the patentee has offered a rate that is accepted as being consistent with FRAND principles, but the adopter refuses to pay royalties at any price, this type of behavior may justify an injunction. Beyond that sort of narrow circumstance, however, the FRAND commitment should be understood as converting the property rule into a liability rule, since by making the commitment, the patentee has freely acknowledged that royalties would provide adequate compensation for the loss of exclusivity. We argue that a general prohibition on injunctive relief when a FRAND commitment exists would be consistent with well-established approaches to property and liability rules, and is a logical progression following the Supreme Court’s recent narrowing of injunction policy in patent litigation.

1. CONCLUSION

Information is like a currency. Some sources indicate that over 50% of the business output of industry in the United States is comprised of intangible assets, many of which are protected by intellectual property rights.[[344]](#footnote-344) Companies are often bought and sold based on the value of their IP portfolios, especially patents. These patent transfers have significant implications for technology-reliant industries like ICT industries. These industries often utilize standards to facilitate interoperability, with SSOs often requiring owners of essential patents to commit to licensing these patents on FRAND terms to future licensees.

Numerous court decisions demonstrate the types of problems regarding FRAND commitments that we have delineated in this Article. But despite these problems, the theoretical foundations that might help us understand the nature and scope of the FRAND commitment have not been studied. In this Article, we examine these theoretical foundations and expose the limitations of theories grounded in patent, antitrust, and contract in terms of enabling the analysis of issues and problems concerning the FRAND commitment. We note that a contract-based theory offers a good approach in many situations, but we also expose the significant limitations of contract theory as applied to FRAND commitments. In particular, contract theory fails to effectively address the problem of enforcing FRAND commitments after a standard essential patent (SEP) has been transferred.

In this Article, we posit for the first time that understanding a FRAND commitment through the lens of property would be an effective approach to support the public interest in favor of having a FRAND commitment run with the patent. We also conclude that such an approach would be consistent with U.S. law concerning servitudes, and that this theoretical approach could resolve one of the major problems that arises when SEPs are transferred. By applying the classic theories of Hohfeld and those of modern scholars like Merrill and Smith, we establish that a FRAND commitment creates a hybrid type of right that cannot be understood purely through the lens of contract law. This approach then allows us to conceptualize the FRAND commitment as an encumbrance that runs with the patent, similar to a servitude under real property law.

Finally, we examine the use of injunctions in patent litigation, and in FRAND disputes in particular, and discuss the availability of injunctions in non-traditional forums like the ITC. Through application of theoretical insights concerning property rules and liability rules, we establish why a FRAND commitment should be understood as a waiver of the right to seek an injunction for infringement of a SEP. By applying the FRAND commitment theories espoused in this Article to prohibit injunctions for infringement of SEPs and to protect the transferability of FRAND commitments, courts and SSOs can ensure the continued viability of a competitive marketplace for ideas and innovation.

**APPENDIX – GLOSSARY**

|  |  |  |
| --- | --- | --- |
| **Acronym** | **Meaning** | **Notes** |
| **ATSC** | Advanced Television Systems Committee | http://www.atsc.org/cms/ |
| **AVS** | China’s Audio and Video Coding Standard Workgroup | http://www.avs.org.cn/en/ |
| **ETSI** | European Telecommunications Standards Institute | http://www.etsi.org/ |
| **IEEE-SA** | Institute of Electrical and Electronics Engineers - Standard Association | https://standards.ieee.org/ |
| **ITU** | International Telecommunications Union | http://www.itu.int/en/ITU-T/Pages/default.aspx |
| **VITA** | VMEbus International Trade Association | http://www.vita.com/home/VSO/VSO.html |
|  |  |  |
| **IPO** | Intellectual Property Owners Association | http://www.ipo.org |
|  |  |  |
| **DOJ** | Department of Justice | http://www.justice.gov/ |
| **FTC** | Federal Trade Commission | http://ftc.gov/ |
| **ITC** | International Trade Commission | http://www.usitc.gov/ |
| **USPTO** | United States Patent and Trademark Office | http://www.uspto.gov/ |
|  |  |  |
| **EC** | European Commission |  |
| **EULA** | End User Licensing Agreement |  |
| **FRAND** | Fair, Reasonable, and Nondiscriminatory |  |
| **FRAND-RF** | Fair, Reasonable, and Nondiscriminatory - Royalty-free |  |
| **HDTV** | High-definition television |  |
| **ICT** | Internet, Computing, and Telecommunications |  |
| **IP** | Intellectual Property |  |
| **IPR** | Intellectual Property Rights |  |
| **MDL** | Multi-district litigation |  |
| **PAE** | Patent Assertion Entity |  |
| **RFC** | Request for Comments |  |
| **SEPs** | Standard Essential Patents |  |
| **SSOs** | Standard Setting Organizations |  |
| **UCC** | Uniform Commercial Code |  |

1. \* Professor and H. Ross & Helen Workman Research Scholar, University of Illinois College of Law. [↑](#footnote-ref-1)
2. \*\* Research Associate, University of Illinois College of Law; Fall 2010 Fellow in the Christine Mirzayan Science and Technology Policy Graduate Fellowship program at the National Academy of Sciences.  
    The authors wish to thank the Board on Science, Technology, and Economic Policy (STEP) of the National Academies for their support of this work. The authors acknowledge the valuable guidance and useful discussions provided by Sandy Block, Jorge Contreras, Jon Law, Mark Lemley, Amy Marasco, Steve Merrill, Adam Mossoff, Gil Ohana, Scott K. Peterson, and Claudia Tapia Garcia.   
    [↑](#footnote-ref-2)
3. Nielsen News, Young Adults and Teens Lead Growth Among Smartphone Owners, Sep. 10, 2012, http://blog.nielsen.com/nielsenwire/online\_mobile/young-adults-and-teens-lead-growth-among-smartphone-owners/. [↑](#footnote-ref-3)
4. *Id.* [↑](#footnote-ref-4)
5. Miller School of Medicine at the University of Miami, Wi-Fi/802.11 Standards, <http://it.med.miami.edu/x275.xml> (last visited Feb. 23, 2013). [↑](#footnote-ref-5)
6. Chris O’Brien, *Apple Appeals Denial of Product Ban in Samsung Patent Case*, L.A. Times, Jan. 15, 2013, *available at* http://www.latimes.com/business/technology/la-fi-tn-apple-appeals-denial-of-product-ban-in-samsung-patent-case-20130115,0,4451226.story. [↑](#footnote-ref-6)
7. Foss Patents, RIM Loses Arbitration, Has to Agree with Nokia on Royalties or Stop Selling WiFi Products, Nov. 28, 2012, http://www.fosspatents.com/2012/11/rim-loses-arbitration-has-to-agree-with.html. [↑](#footnote-ref-7)
8. Microsoft Corp. v. Motorola, Inc., 696 F.3d 872, 879 (9th Cir. 2012). The injunction pertained to products using patents relating to the H.264 video encoding standard and the 802.11 wireless standard, which would have prohibited Microsoft from selling the Xbox 360 or any product incorporating Windows 7 or Windows Media Player 12. [↑](#footnote-ref-8)
9. The label “PAE” was promoted by the FTC in its 2011 report to distinguish a specific type of non-practicing entity (NPE). Federal Trade Comm’n, The Evolving IP Marketplace: Aligning Patent Notice and Remedies with Competition, at 8 (Mar. 2011), *available at* http://www.ftc.gov/os/2011/03/110307patentreport.pdf. [↑](#footnote-ref-9)
10. *See, e.g.*, Charles Arthur, *VirnetX Adds iPhone 5 to New Apple Lawsuit After $368m Trial Win*, The Guardian, Nov. 9, 2012, http://www.guardian.co.uk/technology/2012/nov/09/apple-virnetx-patent-iphone-5 (noting ongoing litigation); Christina Bonnington, *Jurors Say Apple iPhone Infringes on Three MobileMedia Patents*, Wired, Dec. 13, 2012, http://www.wired.com/gadgetlab/2012/12/iphone-infringes-patent/ (quoting Florian Mueller for the premise that MobileMedia is a patent licensing and assertion entity, though it undertakes its activities on behalf of Sony, Nokia, and MPEG-LA). On VirnetX’s website, the company explicitly states that their “portfolio of intellectual property is the foundation of [their] business model,” so it is probably not unreasonable to categorize VirnetX as a patent assertion entity. Gabriel Patent Licensing, http://virnetx.com/licensing/patent-licensing-2/ (last visited Jan. 16, 2013). [↑](#footnote-ref-10)
11. Charles Duhigg and Steve Lohr, *The Patent, Used as a Sword*, N.Y. Times, Oct. 7, 2012, *available at* http://www.nytimes.com/2012/10/08/technology/patent-wars-among-tech-giants-can-stifle-competition.html. [↑](#footnote-ref-11)
12. Steve Lohr, *Smartphone Patent Wars Show the System Works, Patent Chief Says*, Bits Blog, N.Y. Times, Nov. 20, 2012, 3:25 PM EST, http://bits.blogs.nytimes.com/2012/11/20/smartphone-patent-wars-show-the-system-works-patent-chief-says/. [↑](#footnote-ref-12)
13. U.S. Const. Art. 1 § 8. [↑](#footnote-ref-13)
14. *See* Mark A. Lemley, *Intellectual Property Rights and Standard-Setting Organizations*, 90 Cal. L. Rev. 1889, 1892 (2002) (referencing and contesting the standard economic theory of IP rights, which argues that weaker IP rights will result in decreased innovation). [↑](#footnote-ref-14)
15. 35 U.S.C. § 154(a)(2). [↑](#footnote-ref-15)
16. *See* Herbert Hovencamp, *Antitrust and the Movement of Technology*, 19 Geo. Mason L. Rev. 1119, 1137 (2012). [↑](#footnote-ref-16)
17. Carl Shapiro, *[Navigating](http://web2.westlaw.com/result/result.aspx?cnt=DOC&cfid=1&referencepositiontype=T&eq=Welcome%2fLawSchoolPractitioner&rlti=1&vr=2.0&method=TNC&origin=Search&rltdb=CLID_DB9748965416139&db=TP-ALL&referenceposition=SR%3b39613&utid=2&srch=TRUE&n=1&sri=327&fn=_top&fmqv=s&service=Search&query=%22NAVIGATING+THE+PATENT+THICKET%22&sskey=CLID_SSSA2548965416139&sv=Split&scxt=WL&rlt=CLID_QRYRLT6234775416139&rs=WLW12.07&ss=CNT&rp=%2fWelcome%2fLawSchoolPractitioner%2fdefault.wl&mt=LawSchoolPractitioner" \t "result) the* *[Patent](http://web2.westlaw.com/result/result.aspx?cnt=DOC&cfid=1&referencepositiontype=T&eq=Welcome%2fLawSchoolPractitioner&rlti=1&vr=2.0&method=TNC&origin=Search&rltdb=CLID_DB9748965416139&db=TP-ALL&referenceposition=SR%3b39615&utid=2&srch=TRUE&n=1&sri=327&fn=_top&fmqv=s&service=Search&query=%22NAVIGATING+THE+PATENT+THICKET%22&sskey=CLID_SSSA2548965416139&sv=Split&scxt=WL&rlt=CLID_QRYRLT6234775416139&rs=WLW12.07&ss=CNT&rp=%2fWelcome%2fLawSchoolPractitioner%2fdefault.wl&mt=LawSchoolPractitioner" \t "result)* *[Thicket](http://web2.westlaw.com/result/result.aspx?cnt=DOC&cfid=1&referencepositiontype=T&eq=Welcome%2fLawSchoolPractitioner&rlti=1&vr=2.0&method=TNC&origin=Search&rltdb=CLID_DB9748965416139&db=TP-ALL&referenceposition=SR%3b39616&utid=2&srch=TRUE&n=1&sri=327&fn=_top&fmqv=s&service=Search&query=%22NAVIGATING+THE+PATENT+THICKET%22&sskey=CLID_SSSA2548965416139&sv=Split&scxt=WL&rlt=CLID_QRYRLT6234775416139&rs=WLW12.07&ss=CNT&rp=%2fWelcome%2fLawSchoolPractitioner%2fdefault.wl&mt=LawSchoolPractitioner" \t "result): Cross Licenses, Patent Pools, and Standard Setting*, in 1 Innovation Pol’y & Econ. 119, 120 (Adam B. Jaffe et al. eds., 2000), *available at* http://www.nber.org/chapters/c10778.pdf; *see also* Peter S. Menell, *The Property Rights Movement’s Embrace of Intellectual Property: True Love or a Doomed Relationship?*, 34 Ecology L.Q. 713, 752 (2007) (“[T]he cumulative nature of innovation means that almost all innovations are linked to other innovations to some degree.”). [↑](#footnote-ref-17)
18. Adam Speegle, Note, *Antitrust Rulemaking as a Solution to Abuse of the Standard-Setting Process*, 110 Mich. L. Rev. 847, 848 (2012) (noting that the majority of consumer electronics are “aggregations of independent patented technologies that are packaged together”). [↑](#footnote-ref-18)
19. Lemley, *supra* note 12, at 1948 (referencing economic scholarship); *see also* Menell, *supra* note 15, at 753 (“[T]he trend of digital technology toward greater collaborative creativity and costly enforcement seems unlikely to support traditional conceptions of ownership and control.”). [↑](#footnote-ref-19)
20. *See, generally*, John M. Golden, *Principles for Patent Remedies*, 88 Tex. L. Rev. 505 (2010). [↑](#footnote-ref-20)
21. *See* id. at 508. [↑](#footnote-ref-21)
22. 35 U.S.C. § 282(b). [↑](#footnote-ref-22)
23. *See* Robert P. Merges and Jeffrey M. Kuhn, *An Estoppel Doctrine for Patented Standards*, 97 Cal. L. Rev. 1, 4 (2009) (“Standardization spurs network effects because a program that interoperates with a vartiety of programs and files is more valuable than one that works only in isolation.”). [↑](#footnote-ref-23)
24. *See id.* at 5 (stating that in the case of “network goods” like software, a product becomes more valuable when more people use it). [↑](#footnote-ref-24)
25. The Blu-ray/HD DVD conflict is an example of a “standard war” in a de facto standard setting context. In lieu of a separate organization determining the final specifications, the winner of the standard war was determined by the market. Speegle, *supra* note 16, at 848. [↑](#footnote-ref-25)
26. Lemley, *supra* note 12, at 1898. [↑](#footnote-ref-26)
27. *See id.* at 1947 (noting that SSOs “are built on agreements among horizontal competitors”). [↑](#footnote-ref-27)
28. Because this article includes many acronyms, we have included a glossary in the appendix as a quick reference. [↑](#footnote-ref-28)
29. Merges & Kuhn, *supra* note 21, at 10 (stating that patent holdup can either be in the form of “bait-and-switch,” where the patentee increases the licensing cost unexpectedly, or “snake in the grass,” when it is a third party that unexpectedly asserts a patent). Merges and Kuhn refer to this type of behavior as “strategic rent-seeking.” *Id.* at 25. [↑](#footnote-ref-29)
30. Colleen V. Chien & Mark A. Lemley, *Patent Holdup, the ITC, and the Public Interest*, 98 Cornell L. Rev. 1, 39 (2012). [↑](#footnote-ref-30)
31. *See* Chien & Lemley, *supra* note 28, at 6; Merges & Kuhn, *supra* note 21, at 49. Chien and Lemley also note that many patent infringement litigation in this sort of context involves inadvertent infringement. Chien & Lemley, *supra* note 28, at 6. [↑](#footnote-ref-31)
32. Anne Layne-Farrar, A. Jorge Padilla, and Richard Schmalensee, *Pricing Patents for Licensing in Standard-Setting Organizations: Making Sense of FRAND Commitments*, 74 Antitrust L.J. 671, 672 (2007). [↑](#footnote-ref-32)
33. In the United States, these terms are sometimes referred to as “reasonable and nondiscriminatory,” or RAND. Judge Posner wrote recently that the “fair” part of “fair, reasonable, and nondiscriminatory” does not add anything substantive to the phrase. Apple v. Motorola, 869 F.Supp.2d 901, 911-12 (N.D. Ill. 2012). However, because “FRAND” is often used to describe these terms in the United States anyway, and is how these terms are typically described in analysis elsewhere (including Europe), we use the term FRAND in this report instead of RAND to better encompass the international scope of the discussion. Adopting the acronym “FRAND” might also simplify searches for relevant information, as fewer words in the English language contain the consecutive letters F-R-A-N-D than that contain the consecutive letters R-A-N-D. [↑](#footnote-ref-33)
34. James Surowiecki, *Turn of the Century*, Wired, Jan. 2002, at 85. [↑](#footnote-ref-34)
35. *See* Merges & Kuhn, *supra* note 21, at 7 (stating that standardization allows for greater interoperability between different software components). [↑](#footnote-ref-35)
36. Speegle, *supra* note 16, at 849. [↑](#footnote-ref-36)
37. *See* Merges & Kuhn, *supra* note 21, at 23 (noting the problems of lock-in and collective switching costs in the standards context). [↑](#footnote-ref-37)
38. *Compare* Merges & Kuhn, *supra* note 21, at 25 (suggesting that the timing of patent applications might indicate bad faith on the part of the applicant) *with* Anne Layne-Farrar, *Innovative or Indefensible? An Empirical Assessment of Patenting Within Standard Setting*, 9 Int'l J. of IT Standards and Standardization Research 1, 13 (July-Dec. 2011) (noting that the author’s analysis of forward citations indicates that only between ten and thirty percent of patents obtained after a standard is set are actually opportunistic). [↑](#footnote-ref-38)
39. Speegle, *supra* note 16, at 849. [↑](#footnote-ref-39)
40. Layne-Farrar, Padilla, & Schmalensee, *supra* note 30, at 678-79. [↑](#footnote-ref-40)
41. *See* Speegle, *supra* note 16, at 853 (arguing that the FRAND commitments are too vague and “often provide at most a questionable foundation on which to base litigation over patent licensing disagreements.”). [↑](#footnote-ref-41)
42. *See* Layne-Farrar, Padilla, & Schmalensee, *supra* note 30, at 676. Layne-Farrar, Padilla, and Schmalensee apply economic models to various possible circumstances, and conclude that the equilibrium royalty rate will be highest when there is no competition, lower when there is imperfect competition, and minimal when there is perfect competition. *Id.* at 693. [↑](#footnote-ref-42)
43. *See, e.g.,*  Microsoft v. Motorola, Inc., 696 F.3d 872, 878 (9th Cir. 2012). [↑](#footnote-ref-43)
44. *See* Lemley, *supra* note 12, at 1959 (warning that the inclusion of “unnecessary patents will complicate the disclosure and licensing processes.”). [↑](#footnote-ref-44)
45. Lemley, *supra* note 12, at 1959. [↑](#footnote-ref-45)
46. Shapiro, *supra* note 15, at 128. [↑](#footnote-ref-46)
47. IEEE-SA, Standards Board Bylaws, http://standards.ieee.org/develop/policies/bylaws/sect6-7.html (last visited Feb. 19, 2013). [↑](#footnote-ref-47)
48. John Paczkowski, *Google Says Some Apple Inventions Are So Great They Ought to Be SEPs*, All Things D, July 20, 2012, http://allthingsd.com/20120720/google-claims-popularity-has-made-some-apple-patents-de-facto-essentials/. [↑](#footnote-ref-48)
49. IEEE-SA, Standards Board Bylaws, http://standards.ieee.org/develop/policies/bylaws/sect6-7.html (last visited Feb. 7, 2013) (emphasis added). [↑](#footnote-ref-49)
50. Layne-Farrar, Padilla, & Schmalensee, *supra* note 30, at 677 (referencing findings of empirical work by Chiao, et al.). Declaring that an essential patent has been found is often a judgment call. *Id.* [↑](#footnote-ref-50)
51. FRAND-RF and FRAND terms are often seen as alternatives to one another. In the standards context, parties occasionally cross-license on FRAND-RF terms, as Apple allegedly offered to do if ETSI adopted its design for a new Nano-SIM card as essential to a new standard. Posting by Eric Slivka to MacRumors, *Apple Offers Royalty-Free Patent Licenses to Push Proposed Nano-SIM Standard*, Mar. 26, 2012, 6:47 AM PDT, http://www.macrumors.com/2012/03/26/apple-offers-royalty-free-patent-licenses-to-push-proposed-nano-sim-standard/. In some cases, SSOs might also treat FRAND-RF licenses as a punitive measure, as in the case of SSOs that include provisions in their IP policies to require members to license on FRAND-RF terms if they own essential patents that they fail to disclose. *E.g.*, VSO Policies & Procedures – Revision 2.6, at 14 (Nov. 30, 2009), *available at* http://www.vita.com/home/VSO/vso-pp-r2d6.pdf. [↑](#footnote-ref-51)
52. Guidelines for Implementation of the Common Patent Policy for ITU-T/IRU-R/ISO/IEC 5 (Apr. 23, 2012), *available at* http://www.itu.int/dms\_pub/itu-t/oth/04/04/T04040000010003PDFE.pdf. [↑](#footnote-ref-52)
53. Part of the reason that SSOs do not specify what FRAND means may be that SSOs want to avoid any appearance that the organization exists for price fixing purposes that would be illegal under antitrust law. Layne-Farrar, Padilla, & Schmalensee, *supra* note 30, at 678-79. [↑](#footnote-ref-53)
54. Merges & Kuhn, *supra* note 21, at 7; *but see* Lemley, *supra* note 12, at 1951 (considering SSOs to be similar to patent pools, but not the same). [↑](#footnote-ref-54)
55. Jorge L. Contreras, Fixing FRAND: A Pseudo-Pool Approach to Standards-Based Patent Licensing (Feb. 13, 2013) (unpublished working paper, on file with the authors). [↑](#footnote-ref-55)
56. *Id.* (suggesting that a pseudo-pool model could remedy the uncertainty of FRAND commitments). [↑](#footnote-ref-56)
57. *See* Alan Devlin, *Standard-Setting and the Failure of Price Competition*, 65 N.Y.U. Ann. Surv. Am. L. 217, 227 (2009) ("But an SSO's insistence on royalty-free licensing may be undesirable with respect to technological innovation in the long run if other forms of compensation to the patentee are not forthcoming."). [↑](#footnote-ref-57)
58. *See* AVS, Audio Video Coding Standard Workgroup of China, http://www.avs.org.cn/en/ (click on “IPR Policy”) (last visited Feb. 13, 2013). [↑](#footnote-ref-58)
59. Merges & Kuhn, *supra* note 21, at 23. [↑](#footnote-ref-59)
60. *See generally* Lemley, *supra* note 12. [↑](#footnote-ref-60)
61. *Id.* at 1903. [↑](#footnote-ref-61)
62. *Id.* at 1891. [↑](#footnote-ref-62)
63. *Id.* at 1904. [↑](#footnote-ref-63)
64. Layne-Farrar, Padilla, & Schmalensee, *supra* note 30, at 677-78. [↑](#footnote-ref-64)
65. Lemley, *supra* note 12, at 1971 (citing previous work indicating that patents can block improvements in the ICT industries). However, Lemley also says that IP rules must be transparent and fair to fulfill this function. *Id.* at 1957. [↑](#footnote-ref-65)
66. IEEE-SA Standard Board Bylaws, Sec. 6, http://standards.ieee.org/develop/policies/bylaws/sect6-7.html (last visited Feb. 19, 2013). [↑](#footnote-ref-66)
67. *See, e.g.*, IEEE-SA Standard Board Bylaws, Sec. 6, http://standards.ieee.org/develop/policies/bylaws/sect6-7.html (last visited Feb. 19, 2013) (requiring members to transfer patents subject to the FRAND commitment). [↑](#footnote-ref-67)
68. *See, e.g.*, Common Patent Policy for ITU-T/ITU-R/ISO/IEC, http://www.itu.int/en/ITU-T/ipr/Pages/policy.aspx (last visited Feb. 19, 2013) (“The detailed arrangements arising from patents (licensing, royalties, etc.) are left to the parties concerned, as these arrangements might differ from case to case.”). [↑](#footnote-ref-68)
69. IEEE-SA Standard Board Bylaws, Sec. 6, http://standards.ieee.org/develop/policies/bylaws/sect6-7.html (last visited Feb. 19, 2013) [↑](#footnote-ref-69)
70. Guidelines for Implementation of the Common Patent Policy for ITU-T/ITU-R/ISO/IEC, Apr. 23, 2012, http://www.itu.int/dms\_pub/itu-t/oth/04/04/T04040000010003PDFE.pdf. Section 7 of the IPR policy of the ITU, however, does specify that if the member had specifically identified patents to the standard-setting body, the member would be required to obtain the assignee’s consent to be bound by the same agreement as the member. [↑](#footnote-ref-70)
71. ETSI Intellectual Property Rights Policy, Nov. 30, 2011, http://www.etsi.org/images/etsi\_ipr-policy.pdf. The approach taken by ETSI, where the SSO reserves a right to scrap the entire standard if a FRAND commitment cannot be obtained, is mostly unique because it is explicitly stated. Some indications suggest that this approach is fairly common in the standard setting context, but many SSOs do not expressly refer to it in their IPR policies. [↑](#footnote-ref-71)
72. IEEE-SA, Standard Board Bylaws, Sec. 6, http://standards.ieee.org/develop/policies/bylaws/sect6-7.html (last visited Feb. 19, 2013); Welcome to AVS, http://www.avs.org.cn/en/ (click “IPR Policy”) (last visited Feb. 19, 2013). [↑](#footnote-ref-72)
73. U.C.C. § 9-709 (2001) (addressing priority). [↑](#footnote-ref-73)
74. 35 U.S.C. § 261. [↑](#footnote-ref-74)
75. 37 C.F.R. § 3.11(b). [↑](#footnote-ref-75)
76. Federal Trade Comm’n, The Evolving IP Marketplace: Aligning Patent Notice and Remedies with Competition, at 130-31 (Mar. 2011), *available at* http://www.ftc.gov/os/2011/03/110307patentreport.pdf (“Recording assignments of government-conferred rights to exclude is necessary to ensure public notice and will not unduly burden patent transfers."). [↑](#footnote-ref-76)
77. 76 Fed. Reg. 72372 (Nov. 23, 2011). [↑](#footnote-ref-77)
78. 76 Fed. Reg. 72372, 72372 (Nov. 23, 2011). [↑](#footnote-ref-78)
79. 76 Fed. Reg. 72372, 72372-73 (Nov. 23, 2011). [↑](#footnote-ref-79)
80. Comment on Eliciting More Complete Patent Assignment Information, submitted by IPO, *available at* http://www.uspto.gov/patents/law/comments/a\_ipo\_120123.pdf. [↑](#footnote-ref-80)
81. United States Patent and Trademark Office Fee Schedule, http://www.uspto.gov/web/offices/ac/qs/ope/fee100512.htm (last visited Feb. 18, 2013). [↑](#footnote-ref-81)
82. Thomas W. Merrill & Henry E. Smith, *The Property/Contract Interface*, 101 Colum. L. Rev. 773, 805 (2001). [↑](#footnote-ref-82)
83. *E.g.*, VSO Policies & Procedures – Revision 2.6, at 14 (Nov. 30, 2009), *available at* http://www.vita.com/home/VSO/vso-pp-r2d6.pdf (“If a WG Member fails to adequately and timely disclose… a patent claim or license terms for it as set forth in this Section 10… the VITA Member Company must license it to the extent it is essential to a Draft VSO Specification on a royalty free basis…”). [↑](#footnote-ref-83)
84. SeeSection II.D.i. for a brief discussion of four SSOs and their very different rules about the effect of patent transfer on FRAND commitments. [↑](#footnote-ref-84)
85. *E.g.,*  Apple, Inc. v. Samsung Electronics Co., Ltd., No. 11–CV–01846, 2012 WL 1672493 (N.D. Cal. May 14, 2012) ("Moreover, both parties agree that Samsung's contractual obligation arising from its FRAND declarations to ETSI at the very least created a duty to negotiate in good faith with Apple regarding FRAND terms.”). [↑](#footnote-ref-85)
86. Microsoft Corp. v. Motorola, Inc., 864 F. Supp. 2d 1023, 1038 (W.D. Wash. 2012). [↑](#footnote-ref-86)
87. Common Patent Policy for ITU-T/ITU-R/ISO/IEC, http://www.itu.int/en/ITU-T/ipr/Pages/policy.aspx (last visited Feb. 19, 2013). At least one court has read ITU’s patent policy as applying the FRAND requirement at the negotiation stage. ESS Tech v. PC-Tel, No. C-99-20292 at 1 (N.D. Cal. 1999). [↑](#footnote-ref-87)
88. Georgia-Pacific Corp. v. U.S. Plywood Corp., 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970). [↑](#footnote-ref-88)
89. eBay Inc. v. MercExchange, L.L.C., 547 U.S. 388, 391 (2006). [↑](#footnote-ref-89)
90. Paice LLC v. Toyota Motor Corp., 609 F. Supp. 2d 620, 624 (E.D. Tex. 2009). [↑](#footnote-ref-90)
91. Chien & Lemley, *supra* note 28, at 3-4 (warning that PAEs have started seeking exclusion orders from the ITC in greater numbers since *eBay* was decided in 2006). [↑](#footnote-ref-91)
92. 11 USC § 522(d)(5) (2006) (exemptions); 11 USC § 363 (2006) (sale of assets by trustee). [↑](#footnote-ref-92)
93. Merges & Kuhn, *supra* note 21, at 36. [↑](#footnote-ref-93)
94. 11 U.S.C. § 365(n) (2006). [↑](#footnote-ref-94)
95. *See* Merges & Kuhn, *supra* note 21, at 37 (suggesting adopting a similar approach in the authors’ proposed standards estoppel doctrine). [↑](#footnote-ref-95)
96. *In re* Nortel Networks, Inc., 2011 WL 4831218, slip op. at 9 (Bkrtcy. D. Del. July 11, 2011). [↑](#footnote-ref-96)
97. *In re* Nortel Networks, Inc., 2011 WL 4831218, slip op. at 9 (Bkrtcy. D. Del. July 11, 2011). [↑](#footnote-ref-97)
98. *See* Lemley, *supra* note 12, at 1909 (asserting that the IP rules of SSOs should be enforced through contract and IP law, but acknowledging that there are issues that make it difficult to enforce the rules effectively through these means). [↑](#footnote-ref-98)
99. *See* Merges & Kuhn, *supra* note 21, at 33-34. [↑](#footnote-ref-99)
100. *Id.* at 35. [↑](#footnote-ref-100)
101. A.C. Aukerman Company v. R.L. Chaides Construction Co., 960 F.2d 1020, 1032 (Fed. Cir. 1992). [↑](#footnote-ref-101)
102. Merges & Kuhn, *supra* note 21, at 44. [↑](#footnote-ref-102)
103. A.C. Auckerman, 960 F.2d at 1033. [↑](#footnote-ref-103)
104. A.C. Auckerman, 960 F.2d at 1033. [↑](#footnote-ref-104)
105. Merges & Kuhn, *supra* note 21, at 42 (noting that the “knew or should have known” requirement of laches does not protect the entire group of standards adopters). [↑](#footnote-ref-105)
106. *Id.* at 45-46. [↑](#footnote-ref-106)
107. Lemley, *supra* note 12, at 1918 (quoting A.C. Aukerman, 960 F.2d at 1028). [↑](#footnote-ref-107)
108. A.C. Auckerman, 960 F.3d at 1043. [↑](#footnote-ref-108)
109. Lemley, *supra* note 12, at 1921. [↑](#footnote-ref-109)
110. Merges & Kuhn, *supra* note 21, at 39. [↑](#footnote-ref-110)
111. Lemley, *supra* note 12, at 1920-21. [↑](#footnote-ref-111)
112. *Id.* at 1923. [↑](#footnote-ref-112)
113. Merges & Kuhn, *supra* note 21, at 23. [↑](#footnote-ref-113)
114. *Compare* Merges & Kuhn, *supra* note 21, at 39-40 (suggesting that misrepresentation might not be found in a failure to disclose) *with* Lemley, *supra* note 12, at 1918 (positing that nondisclosure of patents to an SSO might count as silence when there is a duty to speak). [↑](#footnote-ref-114)
115. Merges and Kuhn suggest an alternative that they call “standards estoppel.” Merges & Kuhn, *supra* note 21, at 20. [↑](#footnote-ref-115)
116. *Id.* at 34. [↑](#footnote-ref-116)
117. *Id.* at 35. [↑](#footnote-ref-117)
118. Lemley, *supra* note 12, at 1925. [↑](#footnote-ref-118)
119. Merges & Kuhn, *supra* note 21, at 35. [↑](#footnote-ref-119)
120. Barnes & Noble, Inc. v. LSI Corp., 849 F. Supp. 2d 925, 932 (N.D. Cal. 2012) (noting that fraud prior to issuance and subsequent to issuance can make a patent unenforceable). [↑](#footnote-ref-120)
121. *E.g.,* Wang Laboratories Inc. v. Mitsubishi Electronics America, Inc., 103 F.3d 1571, 1580 (1997). [↑](#footnote-ref-121)
122. 103 F.3d 1571 (Fed. Cir. 1997). [↑](#footnote-ref-122)
123. Lemley, *supra* note 12, at 1923-24. [↑](#footnote-ref-123)
124. Stambler v. Diebold, Inc., 11 U.S.P.Q.2d 1709, 1714-15 (E.D.N.Y. 1988) (“Plaintiff could not remain silent while an entire industry implemented the proposed standard and then when the standards were adopted assert that his patent covered what manufacturers believed to be an open and available standard.”). [↑](#footnote-ref-124)
125. *See supra* note 112. [↑](#footnote-ref-125)
126. 49 F.3d 807 (1st Cir. 1995). [↑](#footnote-ref-126)
127. *Lotus*, 49 F.3d at 821; *see also* Merges & Kuhn, *supra* note 21, at 20 (discussing the *Lotus* case). [↑](#footnote-ref-127)
128. 849 F. Supp. 2d 925 (N.D. Cal. 2012). [↑](#footnote-ref-128)
129. Rembrandt Tech. v. Harris Corp., 2009 WL 1509103 (Del.Super. 2009) (“At the initial scheduling conference, the Court was advised that multi-district patent litigation (to which Harris is not a party) involving the ′ 627 patent was ongoing in the United States District Court for the District of Delaware (the “MDL”).”). [↑](#footnote-ref-129)
130. Rembrandt Tech. v. Harris Corp., 2009 WL 1509103 n. 8 (Del.Super. 2009). [↑](#footnote-ref-130)
131. Rembrandt Tech. v. Harris Corp., 2009 WL 1509103 (Del.Super. 2009) (“If Harris admitted infringement, then the admission could be used as evidence in the prosecution of the patent litigation. If Harris denied infringement, then, based on the language of the commitment on which Harris' demand for the license was based, Rembrandt would not owe a license to Harris and this case would be over. The Court denied the motion.”). [↑](#footnote-ref-131)
132. Rembrandt Tech. v. Harris Corp., 2009 WL 1509103 (Del.Super. 2009) (“Throughout the life of this litigation, the parties have used this action principally as a device to gain strategic advantages in related multi-district federal patent litigation. Positions taken here come and go with the changing tides of the federal litigation.”). [↑](#footnote-ref-132)
133. Because of the nature of SSOs as organizations of competitors, there are sometimes questions about whether the SSOs themselves violate antitrust law. *See* Lemley, *supra* note 12, at 1937 (noting the existence of this argument). However, courts typically acknowledge that the pro-competitive value of SSOs. Intel Corp. v. Via Tech., Inc., 174 F. Supp. 2d. 1038 (N.D. Cal. 2001) (“Without [technology standards], the industry would balkanize, improvements would slow, and consumers would suffer.”). Some scholars note, however, that the risk of violating antitrust law might partially explain why SSOs keep a “hands off” approach to licensing and the interpretation of FRAND. *E.g.*, Layne-Farrar, Padilla, & Schmalensee, *supra* note 30, at 678-79. [↑](#footnote-ref-133)
134. Lemley, *supra* note 12, at 1928. [↑](#footnote-ref-134)
135. *Id.* at 1927. [↑](#footnote-ref-135)
136. 15 U.S.C. § 45 (2006). [↑](#footnote-ref-136)
137. Merges & Kuhn, *supra* note 21, at 14 (noting that authorities faced with antitrust claims often defer to patent law because of patent law’s inherent tradeoff between competition benefits and incentives for innovation). [↑](#footnote-ref-137)
138. *See* Broadcom Corp. v. Qualcomm Inc., 501 F.3d 297, 314 (2007) (holding that patent holdup in the form of unexpected enforcement of a declared essential patent was actionable under antitrust law). [↑](#footnote-ref-138)
139. Adam Mossoff, *A Simple Conveyance Rule for Complex Innovation*, 44 Tulsa L. Rev. 707, 735 (2009) (noting the institutional competence concerns). [↑](#footnote-ref-139)
140. *E.g.*, George S. Cary, Mark W. Nelson, Steven J. Kaiser, & Alex R. Sistla, *The Case for Antitrust Law to Police the Patent Holdup Problem in Standard Setting*, 77 Antitrust L.J. 913 (2011); Speegle, *supra* note 16; Joshua D. Wright & Aubrey N. Stuempfle, *Patent Holdup, Antitrust, and Innovation: Harness or Noose?*, 61 Ala. L. Rev. 559 (2010). [↑](#footnote-ref-140)
141. *See, e.g.*, Maurice E. Stucke, *Does the Rule of Reason Violate the Rule of Law?*, U.C. Davis L. Rev. 1375, 1375 (2009) (referring to the rule-of-reason standard as turning on a fact-specific inquiry). [↑](#footnote-ref-141)
142. 501 F.3d 297 (3d. Cir. 2007). [↑](#footnote-ref-142)
143. 644 F. Supp. 2d 788 (N.D. Tex. 2008). [↑](#footnote-ref-143)
144. Vizio, Inc. v. Funai Elec. Co. Ltd., 2010 WL 7762624 (C.D. Cal. 2010). [↑](#footnote-ref-144)
145. Vizio, Inc. v. Funai Elec. Co. Ltd., 2010 WL 7762624 (C.D. Cal. 2010). [↑](#footnote-ref-145)
146. 522 F.3d 456, 459 (D.C. Cir. 2008) (“But the latter – deceit merely enabling a monopolist to charge higher prices than it otherwise could have charged – would not in itself constitute monopolization.”). [↑](#footnote-ref-146)
147. *Rambus*, 522 F.3d at 466-67. [↑](#footnote-ref-147)
148. *Rambus*, 522 F.3d at 465 (citing NYNEX Corp. v. Discon, Inc., 525 U.S. 128 (1998)). [↑](#footnote-ref-148)
149. Apple, Inc. v. Motorola Mobility, Inc., 2012 WL 3289835 (W.D. Wis. Aug. 10, 2012). The *Noerr-Pennington* doctrine is often understood as being based on the First Amendment. In *Apple v. Motorola*, the court held that the *Noerr-Pennington* doctrine applied because Apple’s claim about Motorola’s anticompetitive conduct arose from Motorola’s attempt to enforce its patents in court, and thus the counterclaim was dismissed on summary judgment. [↑](#footnote-ref-149)
150. *Rambus*, 522 F.3d at 461. [↑](#footnote-ref-150)
151. *Rambus*, 522 F.3d at 467. [↑](#footnote-ref-151)
152. *In re* Dell Computer Corp., 121 F.T.C. 616, 618-19 (May 20, 1996). [↑](#footnote-ref-152)
153. Lemley, *supra* note 12, at 1928-29. [↑](#footnote-ref-153)
154. Decision and Order, *In re* Negotiated Data Solutions LLC, FTC File No. 051-0094, *available at* http://www.ftc.gov/os/caselist/0510094/080122do.pdf. [↑](#footnote-ref-154)
155. *See* Merges & Kuhn, *supra* note 21, at 3 (commenting on the FTC’s findings in the NData proceeding). [↑](#footnote-ref-155)
156. Merges & Kuhn, *supra* note 21, at 3 (suggesting that *NData* should have been an obvious case for finding anticompetitive behavior). [↑](#footnote-ref-156)
157. Motorola Mobility LLC and Google Inc.; Analysis of Proposed Consent Order to Aid Public Comment, 78 Fed. Reg. 2398, 2399 (Jan. 11, 2013). [↑](#footnote-ref-157)
158. Motorola Mobility LLC and Google Inc.; Analysis of Proposed Consent Order to Aid Public Comment, 78 Fed. Reg. 2398, 2400, 2405 (Jan. 11, 2013). [↑](#footnote-ref-158)
159. Motorola Mobility LLC and Google Inc.; Analysis of Proposed Consent Order to Aid Public Comment, 78 Fed. Reg. 2398, 2400 (Jan. 11, 2013) ("The Proposed Complaint alleges that Motorola and Google's conduct violates Section 5 of the FTC Act, both as an unfair method of competition and an unfair act or practice."). [↑](#footnote-ref-159)
160. *See* Speegle, *supra* note 16. [↑](#footnote-ref-160)
161. Speegle, *supra* note 16, at 847. [↑](#footnote-ref-161)
162. *E.g.*, ESS Tech v. PC-Tel, No. C-99-20292 at 5 (N.D. Cal. 1999) (“The court finds that plaintiff has failed to sufficiently allege injury to competition beyond the impact on plaintiff.”). [↑](#footnote-ref-162)
163. Vizio, Inc. v. Funai Elec. Co. Ltd., 2010 WL 7762624 (C.D. Cal. 2010). However, agreements or external forces can intervene to make these agreements transfer. For example, in the Nortel bankruptcy proceeding, the court specified that the patents would be transferred subject to agreements with standard setting organizations. The Department of Justice has also indicated (after an initial investigation) that it would continue to watch Google, Apple, Microsoft, and Research In Motion to ensure that these companies do not use newly acquired SEPs in a way that would be anticompetitive, and that these companies comply with their own promises to be bound by the previous patent owners’ promises to SSOs. Statement of the Department of Justice’s Antitrust Division on Its Decision to Close Its Investigations of Google Inc.’s Acquisition of Motorola Mobility Holdings Inc. and the Acquisitions of Certain Patents by Apple Inc., Microsoft Corp. and Research In Motion Ltd. (Feb. 13, 2012), *available at* http://www.justice.gov/atr/public/press\_releases/2012/280190.htm. [↑](#footnote-ref-163)
164. *See generally* Edward Cavanagh, *[Antitrust](http://web2.westlaw.com/result/result.aspx?cnt=DOC&cfid=1&referencepositiontype=T&eq=Welcome%2fLawSchoolPractitioner&rlti=1&vr=2.0&method=TNC&origin=Search&rltdb=CLID_DB1567110501769&db=JLR&referenceposition=SR%3b9545&utid=2&srch=TRUE&n=1&sri=328&fn=_top&fmqv=s&service=Search&query=%22ANTITRUST+REMEDIES+REVISITED%22&sskey=CLID_SSSA5367110501769&sv=Split&scxt=WL&rlt=CLID_QRYRLT7698310501769&rs=WLW12.07&ss=CNT&rp=%2fWelcome%2fLawSchoolPractitioner%2fdefault.wl&mt=LawSchoolPractitioner" \t "result) [Remedies](http://web2.westlaw.com/result/result.aspx?cnt=DOC&cfid=1&referencepositiontype=T&eq=Welcome%2fLawSchoolPractitioner&rlti=1&vr=2.0&method=TNC&origin=Search&rltdb=CLID_DB1567110501769&db=JLR&referenceposition=SR%3b9546&utid=2&srch=TRUE&n=1&sri=328&fn=_top&fmqv=s&service=Search&query=%22ANTITRUST+REMEDIES+REVISITED%22&sskey=CLID_SSSA5367110501769&sv=Split&scxt=WL&rlt=CLID_QRYRLT7698310501769&rs=WLW12.07&ss=CNT&rp=%2fWelcome%2fLawSchoolPractitioner%2fdefault.wl&mt=LawSchoolPractitioner" \t "result) Revisited*, 84 Or. L. Rev. 147 (2005). [↑](#footnote-ref-164)
165. 15 USC § 45(b) (2006). [↑](#footnote-ref-165)
166. Heater v. FTC, 503, F.2d 321, 326 (9th Cir. 1974); *see also* Peter C. Ward, *Restitution for Consumers Under the Federal Trade Commission Act: Good Intentions or Congressional Intentions?*,41 Am. U. L. Rev. 1139, 1144 (1992) [↑](#footnote-ref-166)
167. 15 USC § 45(l) (2006). [↑](#footnote-ref-167)
168. Pub.L. 93-153, § 408(c). [↑](#footnote-ref-168)
169. CPI Inflation Calculator, http://data.bls.gov/cgi-bin/cpicalc.pl (last visited Jan. 29, 2013). [↑](#footnote-ref-169)
170. GOOGLE/MOTOROLA MOBILITY, Case No. COMP/M.6381, para. 59 (Feb. 2012), *available at* http://ec.europa.eu/competition/mergers/cases/decisions/m6381\_20120213\_20310\_2277480\_EN.pdf. [↑](#footnote-ref-170)
171. Lemley, *supra* note 12, at 1910-11. [↑](#footnote-ref-171)
172. *E.g.*, Guidelines for Implementation of the Common Patent Policy for ITU-T/IRU-R/ISO/IEC 1 (Apr. 23, 2012), *available at* http://www.itu.int/dms\_pub/itu-t/oth/04/04/T04040000010003PDFE.pdf ("The Organizations should not be involved in evaluating patent relevance or essentiality with regards to Recommendations | Deliverables, interfere with licensing negotiations, or engage in settling disputes on Patents; this should be left - as in the past - to the parties concerned."). [↑](#footnote-ref-172)
173. Merges & Kuhn, *supra* note 21, at 14. [↑](#footnote-ref-173)
174. *See id.* at 4 (suggesting that a “reliance interest” should be recognized when a standard adopter uses a standard over time). [↑](#footnote-ref-174)
175. However, courts in several countries have rejected an argument that a FRAND commitment is an offer to license that can be accepted by use of the patent. Apple, Inc. v. Samsung Elec. Co., Ltd., 2012 WL 1672493 slip op. at 14 (N.D. Cal. May 14, 2012) (“[I]t is not plausible that Samsung’s FRAND declarations constitute an offer to license”); Samsung v Apple, General Docket NO. 45629-112011, Court of Milan, Section specialized in industrial and intellectual property matters, January 5, 2012; Samsung v Apple, Case No. LJN: BT7610, District Court of The Hague, Netherlands, 14 October 2011; *see also* General Instrument Corp. [a subsidiary of the Motorola Group] v. Microsoft, case no. 2 O 240/11, Mannheim Regional Court, May 12, 2012 (“[T]he Patent Statement and Licensing Declaration Form… cannot be understood as a binding license offer to any number of third parties unknown to the Plaintiff, requiring only acceptance by a third party, but as a request to license seekers to submit their own FRAND offers.”). [↑](#footnote-ref-175)
176. Microsoft Corp. v. Motorola, Inc., 864 F. Supp. 2d 1023 (W.D. Wash. 2012). [↑](#footnote-ref-176)
177. Microsoft Corp. v. Motorola Inc., 696 F.3d 872 (9th Cir. 2012). [↑](#footnote-ref-177)
178. Microsoft Corp. v. Motorola, Inc., 864 F. Supp. 2d 1023 (W.D. Wash. 2012). [↑](#footnote-ref-178)
179. *E.g.*, *General instrument corporation* [a subsidiary of the Motorola Group] *v Microsoft*, case no. 2 O 240/11, Mannheim Regional Court, May 12, 2012 (stating that the ITU Patent Statement and Licensing Declaration is not “a contract to the benefit of third parties.”). [↑](#footnote-ref-179)
180. ESS Tech v. PC-Tel, No. C-99-20292 at 5 (N.D. Cal. 1999). [↑](#footnote-ref-180)
181. Lemley, *supra* note 12, at 1915. [↑](#footnote-ref-181)
182. Apple, Inc. v. Samsung Electronics Co., Ltd., 2012 WL 1672493 (N.D. Cal. 2012). The court rejected Apple’s argument that it already had a license based on a theory that the FRAND commitment constituted an offer to license that Apple could accept by using the patent. [↑](#footnote-ref-182)
183. Microsoft Corp. v. Motorola, Inc., 864 F. Supp. 2d 1023 (W.D. Wash. 2012). [↑](#footnote-ref-183)
184. Microsoft Corp. v. Motorola, Inc., 854 F. Supp. 2d 993, 1002 (W.D. Wash. 2012) ("As stated above, the court believes that reasonable parties may disagree as to the terms and conditions of a RAND license, leaving the courthouse as the only viable arena to determine the meaning of “reasonable” under the circumstances. It would be illogical, therefore, to deem it repudiation of one's rights under a policy to file a lawsuit to enforce one's rights under that same policy."). [↑](#footnote-ref-184)
185. Microsoft Corp. v. Motorola, Inc., 864 F. Supp. 2d 1023, 1034 (W.D. Wash. 2012) ("[T]he court determines that it was not the intent of the contracting parties (Motorola and the IEEE/ITU) to require that implementer of a standard first apply for a license and then negotiate for a license in good faith before Motorola's RAND obligations are triggered."). [↑](#footnote-ref-185)
186. Microsoft Corp. v. Motorola, Inc., 864 F. Supp.2d 1023 (W.D. Wash. 2012). [↑](#footnote-ref-186)
187. Motorola claimed that a royalty of 2.25% based on the price of the end product (for example, each Xbox 360 that used the 802.11 wireless standard) would be a reasonable royalty. [↑](#footnote-ref-187)
188. Ericsson Inc. v. Samsung Electronics Co., Ltd., 2007 WL 1202728 (E.D. Tex. 2007). [↑](#footnote-ref-188)
189. Georgia-Pacific Corp. v. U.S. Plywood Corp., 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970). [↑](#footnote-ref-189)
190. Layne-Farrar, Padilla, & Schmalensee, *supra* note 30, at 681-82. [↑](#footnote-ref-190)
191. Apple, Inc. v. Motorola, Inc., 869 F. Supp. 2d 901, 913 (N.D. Ill. 2012). [↑](#footnote-ref-191)
192. Federal Trade Comm’n, The Evolving IP Marketplace: Aligning Patent Notice and Remedies with Competition 194 (Mar. 2011), *available at* http://www.ftc.gov/os/2011/03/110307patentreport.pdf. [↑](#footnote-ref-192)
193. Intel, Inc. v. Negotiated Data Solutions, LLC, 699 F. Supp. 2d 871 (E.D. Tex. 2010). [↑](#footnote-ref-193)
194. Rembrandt v. AOL, 641 F.3d 1331 (Fed. Cir. 2011). [↑](#footnote-ref-194)
195. Rembrandt Tech. LP. V. Harris Corp., 2008 WL 4824066 \*1 (Del. Super., 2008). Harris is listed as a member of ATSC. ATSC Members, http://www.atsc.org/cms/index.php/policies/50-details/146-members (last visited Feb. 13, 2013). [↑](#footnote-ref-195)
196. Rembrandt Tech. LP. V. Harris Corp., 2009 WL 2490873 (Del. Super., 2009). [↑](#footnote-ref-196)
197. However, we question in Section IV.B.vi whether this court’s analysis can really be fairly considered to be based on formal contract law. [↑](#footnote-ref-197)
198. Commission Notice: Guidelines on the applicability of Article 81 of the EC Treaty to horizontal cooperation agreements, Official Journal C 003 (06/01/2001), *available at* http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32001Y0106(01):EN:HTML; *see also* Case COMP/39.615-- Nokia/Bosch+IPCom, Press Release, European Comm'n, Antitrust: Commission Welcomes IPCom's Public FRAND Declaration (Dec. 10, 2009) (MEMO/09/549), *available at* http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/09/549&format=HTML&aged=0&language=EN. [↑](#footnote-ref-198)
199. Commission Notice: Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements, Official Journal C 011 (01/14/2011), *available at* http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52011XC0114(04):EN:NOT. [↑](#footnote-ref-199)
200. Case COMP/39.615-- Nokia/Bosch+IPCom, Press Release, European Comm'n, Antitrust: Commission Welcomes IPCom's Public FRAND Declaration (Dec. 10, 2009) (MEMO/09/549), *available at* http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/09/549&format=HTML&aged=0&language=EN. [↑](#footnote-ref-200)
201. *See* Microsoft Corp. v. Motorola, Inc., 696 F.3d 872, 879 (9th Cir. 2012) (discussing a German ruling in Motorola’s favor, a jurisdiction that does not allow third party beneficiaries to enforce a contract). [↑](#footnote-ref-201)
202. Restatement (Second) of Contracts § 302. [↑](#footnote-ref-202)
203. Lemley, *supra* note 12, at 1915. However, Lemley is arguing that it would be inconsistent with Contract law to read a contract as making the public at large an intended third-party beneficiary. In the SSO context, the public is not the intended beneficiary. The class of intended beneficiary consists of potential implementers of the standard. If a member of the public was using the patent for a purpose other than to comply with the standard, the FRAND commitment would not apply. [↑](#footnote-ref-203)
204. U.C.C. § 9-204 (2001). [↑](#footnote-ref-204)
205. *See* U.C.C. § 9-601 (2001) (describing a secured party’s rights after debtor defaults). [↑](#footnote-ref-205)
206. *E.g.*, Lemley, *supra* note 12; Merges & Kuhn, *supra* note 21. [↑](#footnote-ref-206)
207. Jorge Contreras, Standards, Equity and Infrastructure (presentation at 12th Annual Intellectual Property Scholars Conference, Aug. 9-10, 2012, Stanford Law School) [↑](#footnote-ref-207)
208. *E.g.*, Janice Mueller, *Patent Misuse Through the Capture of Industry Standards*, 17 Berkeley Tech. L.J. 623, 659 (2002). [↑](#footnote-ref-208)
209. *Id.* at 659 ("Third parties who did not participate in the standards-setting activity and had no contact with the patentee would be unable to establish detrimental reliance."). [↑](#footnote-ref-209)
210. *E.g.*, Christopher M. Newman, *A License Is Not a "Contract Not To Sue": Disentangling Property and Contract in the Law of Copyright Licenses*, 98 Iowa L. Rev. (forthcoming Mar. 2013), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract\_id=2010853; Molly Shaffer Van Houweling, *The New Servitudes*, 96 Geo. L.J. 885 (2008). [↑](#footnote-ref-210)
211. *See, e.g.*, Spindelfabrik Suessen-Schurr Stahlecker & Grill GmbH v. Schubert & Salzer Maschinefabrik Aktiengesellschaft, 829 F.3d 1075, 1081 (Fed. Cir. 1987) (“As a threshold matter, a patent license agreement is in essence nothing more than a promise by the licensor not to sue the licensee.”); Mark R. Patterson, *Must Licenses Be Contracts? Consent and Notice in Intellectual Property*, *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract\_id=2009934 (forthcoming in Florida State University Law Review 2013) (“This article argues that the weight of judicial authority and sound policy support a contractual approach.”). [↑](#footnote-ref-211)
212. David Hume, A Treatise of Human Nature 491 (L.A. Selby-Bigge ed., Oxford Univ. Press 1978) (1739). [↑](#footnote-ref-212)
213. 35 U.S.C. § 261 (2006). [↑](#footnote-ref-213)
214. Newman, *supra* note 208, at 31. [↑](#footnote-ref-214)
215. Mossoff, *supra* note 137, at 719. [↑](#footnote-ref-215)
216. Menell, *supra* note 15, at 739 (warning that “extrapolating from real property law to intellectual property law overlooks important distinctions between the underlying resources at issue.”). [↑](#footnote-ref-216)
217. *Id.* at 751 (arguing that the absolutist view of the property rights movement does not align with the IP rights system). [↑](#footnote-ref-217)
218. *See* Mossoff, *supra* note 137, at 707 (discussing the position of Richard Epstein). [↑](#footnote-ref-218)
219. *Id.* at 711-712 (noting that patent exhaustion doctrine is derived from traditional property law). [↑](#footnote-ref-219)
220. Newman, *supra* note 208, at 7-8. [↑](#footnote-ref-220)
221. *Id.* at 32. [↑](#footnote-ref-221)
222. *Id.* [↑](#footnote-ref-222)
223. *Id.* at 33. [↑](#footnote-ref-223)
224. *Id.* at 44. [↑](#footnote-ref-224)
225. Henry v. A.B. Dick, Co., 224 U.S. 1, 24 (1912) (“As a license passes no interest in the monopoly, it has been described as a mere waiver of the right to sue by the patentee.”); *see also* De Forest Radio Telephone & Telegraph Co. v. United States, 273 U.S. 236, 242 (1927) (affirming the above quoted language of *Henry*). [↑](#footnote-ref-225)
226. Bloomer v. McQuewan, 55 U.S. (14 How.) 539, 548 (1852) (“The franchise which the patent grants, consists altogether in the right to exclude every one from making, using, or vending the thing patented, without the permission of the patentee. This is all that he obtains by the patent.”). [↑](#footnote-ref-226)
227. Mossoff, *supra* note 137, at 714. [↑](#footnote-ref-227)
228. *Id.* at 715. [↑](#footnote-ref-228)
229. Newman, *supra* note 208, at 61-62. [↑](#footnote-ref-229)
230. Wesley Newcomb Hohfeld, *Some Fundamental Legal Conceptions as Applied in Judicial Reasoning*, 23 Yale L.J. 16, 30 (1913) (hereinafter Hohfeld, *Jural Relations*). [↑](#footnote-ref-230)
231. Fred R. Shapiro and Michelle Pearse, *The Most-Cited Law Review Articles of All Time*, 110 Mich. L. Rev. 1483, 1489 (2012). [↑](#footnote-ref-231)
232. Hohfeld, *Jural Relations*, supra note 228, at 30. [↑](#footnote-ref-232)
233. *Id.* [↑](#footnote-ref-233)
234. *Id.* [↑](#footnote-ref-234)
235. *Id.* at 32. [↑](#footnote-ref-235)
236. *Id.* at 32. [↑](#footnote-ref-236)
237. *Id.* at 55. [↑](#footnote-ref-237)
238. *Id.* [↑](#footnote-ref-238)
239. *See* Yaniv Heled, Regulatory Competitive Immunities – An Emerging Class of Intellectual Property, at 24 (unpublished draft manuscript on file with author). [↑](#footnote-ref-239)
240. *See* Newman, *supra* note 208, at 47 (noting the existence of use privileges in property law). [↑](#footnote-ref-240)
241. *Id.* at 23. [↑](#footnote-ref-241)
242. *Id.* at 50. [↑](#footnote-ref-242)
243. *Id.* at 16. [↑](#footnote-ref-243)
244. Hohfeld, *Jural Relations*, supra note 228, at 55. [↑](#footnote-ref-244)
245. *Id.* at 32. [↑](#footnote-ref-245)
246. Wesley Newcomb Hohfeld, *Fundamental Legal Conceptions as Applied in Judicial Reasoning*, 26 Yale L.J. 710, 718 (1917) (hereinafter Hohfeld, *Fundamental Conceptions*) [↑](#footnote-ref-246)
247. Hohfeld, *Fundamental Conceptions*, *supra* note 244, at 718. [↑](#footnote-ref-247)
248. Merrill & Smith, *supra* note 80. [↑](#footnote-ref-248)
249. Hohfeld, *Fundamental Conceptions*, *supra* note 244, at 733-34 [↑](#footnote-ref-249)
250. Merrill & Smith, *supra* note 80, at 776-77, 788. [↑](#footnote-ref-250)
251. *Id.* at 776-77, 789. [↑](#footnote-ref-251)
252. *Id.* at 778. [↑](#footnote-ref-252)
253. *Id.* at 790. [↑](#footnote-ref-253)
254. *Id.* at 805. [↑](#footnote-ref-254)
255. *Id.* at 805. [↑](#footnote-ref-255)
256. *Id.* at 808. [↑](#footnote-ref-256)
257. *E.g.*, ETSI Intellectual Property Rights Policy, <http://www.etsi.org/images/etsi_ipr-policy.pdf> (Nov. 30, 2011). [↑](#footnote-ref-257)
258. IEEE-SA, Records of IEEE Standards-Related Patent Letters of Assurance, http://standards.ieee.org/about/sasb/patcom/patents.html (last visited Feb. 19, 2013). [↑](#footnote-ref-258)
259. VSO Policies & Procedures – Revision 2.6, at 14 (Nov. 30, 2009), *available at* http://www.vita.com/home/VSO/vso-pp-r2d6.pdf. [↑](#footnote-ref-259)
260. Merrill & Smith, *supra* note 80, at 777. [↑](#footnote-ref-260)
261. *Id.* at 778. [↑](#footnote-ref-261)
262. *Id.* at 778. [↑](#footnote-ref-262)
263. *Id.* at 785. [↑](#footnote-ref-263)
264. *Id.* at 814. [↑](#footnote-ref-264)
265. *Id.* at 785. [↑](#footnote-ref-265)
266. Van Houweling, *supra* note 208, at 891-92. [↑](#footnote-ref-266)
267. Restatement (Third) of Property: Servitudes § 1 IN NT (2000). [↑](#footnote-ref-267)
268. (1848) 41 Eng. Rep. 1143, 1144; *see also*, *e.g.*, Van Houweling, *supra* note 208, at 895. [↑](#footnote-ref-268)
269. *See* Van Houweling, *supra* note 208, at 888-89. [↑](#footnote-ref-269)
270. *Id.* at 897. [↑](#footnote-ref-270)
271. *See id.* at 908-09 (discussing cases about conditions placed on consumer products). [↑](#footnote-ref-271)
272. *Id.* at 910-12. [↑](#footnote-ref-272)
273. However, the IP servitudes that Van Houweling’s work focused on are typically in the context of restrictions being placed on patented items that are sold, not the sale of patents themselves. Thus, while Van Houweling’s work and her reasoning are instructive, the ideas behind patent exhaustion and the legality of conditional sales of patented items are relevant but are ultimately very different from the FRAND commitment issues. The importance of the transferability of FRAND commitments is a matter of symmetry and equity, not a matter of a property owner exercising continued control over the final product. [↑](#footnote-ref-273)
274. Restatement (Third) of Property: Servitudes § 7.9 (2000). [↑](#footnote-ref-274)
275. E.g., Riverwood Commercial Park, LLC v. Standard Oil Co., Inc., 797 N.W.2d 770, 776-78 (N.D. 2011) (affirming the district court's conclusion that the existence of an annual payment was more in line with an easement than a license); Smith v. Huston, 251 S.W.3d 808, 815 (Tex. App. 2008) (discussing the creation of an access easement involving a $200 per year charge). [↑](#footnote-ref-275)
276. Restatement (Third) of Property: Servitudes § 1.5(1) (2000). [↑](#footnote-ref-276)
277. Restatement (Third) of Property: Servitudes § 1.5(2) (2000). [↑](#footnote-ref-277)
278. Restatement (Third) of Property: Servitudes § 5.1 (2000). [↑](#footnote-ref-278)
279. Restatement (Third) of Property: Servitudes § 2.6, illustration 2 (2000) (providing an example of a burdened parcel of land). [↑](#footnote-ref-279)
280. Restatement (Third) of Property: Servitudes § 2.6, comment a (2000). [↑](#footnote-ref-280)
281. The bylaws of IEEE-SA explicitly state that once a Letter of Assurance is accepted, there is an “encumbrance” that the patent owner must transfer with the patent. IEEE-SA Standard Board Bylaws, Sec. 6, http://standards.ieee.org/develop/policies/bylaws/sect6-7.html (last visited Feb. 19, 2013). However, this approach is still based on contract language and does not mean that a FRAND commitment is automatically considered to be an encumbrance on the SEPs of other SSOs. [↑](#footnote-ref-281)
282. Restatement (Third) of Property: Servitudes § 2.15 (2000). [↑](#footnote-ref-282)
283. Restatement (Third) of Property: Servitudes § 2.6(2) (2000); *see also* Willard v. First Church of Christ, Scientist, 498 P.2d 987 (Cal. 1972) (holding that when deeding real property to one person, a grantor may reserve an easement that benefits a third party). [↑](#footnote-ref-283)
284. Restatement (Third) of Property: Servitudes § 3.1 (2000). [↑](#footnote-ref-284)
285. Restatement (Third) of Property: Servitudes § 3.1 (2000). [↑](#footnote-ref-285)
286. *Supra* text accompanying note 266. [↑](#footnote-ref-286)
287. Rembrandt Tech. LP. V. Harris Corp., 2008 WL 4824066 \*1 (Del. Super., Oct. 31, 2008). [↑](#footnote-ref-287)
288. Rembrandt Tech. LP. V. Harris Corp., 2008 WL 4824066 \*2 (Del. Super., Oct. 31, 2008). [↑](#footnote-ref-288)
289. Rembrandt Tech. LP. V. Harris Corp., 2008 WL 4824066 \*3 (Del. Super., Oct. 31, 2008). [↑](#footnote-ref-289)
290. Rembrandt Tech. LP. V. Harris Corp., 2008 WL 4824066 \*5 (Del. Super., Oct. 31, 2008). [↑](#footnote-ref-290)
291. 12 R. Lord, Williston on Contracts § 35:34 (4th ed.2001). [↑](#footnote-ref-291)
292. 11 U.S.C. § 365 (permitting the trustee to "assume or reject any executory contract or unexpired lease of the debtor). [↑](#footnote-ref-292)
293. Int'l Paper Co. v. Schwabedissen Maschinen & Anlagen GMBH, 206 F.3d 411, 418 (4th Cir. 2000); 21 R. Lord, Williston on Contracts § 57:19 (4th ed.2001). [↑](#footnote-ref-293)
294. Rembrandt Tech. LP. V. Harris Corp., 2008 WL 4824066 \*3 (Del. Super., Oct. 31, 2008). [↑](#footnote-ref-294)
295. (1848) 41 Eng. Rep. 1143. [↑](#footnote-ref-295)
296. Estimates suggest that only a minority of existing patents are actually licensed, and approximately half of existing patents have been commercialized. Jason Rantanen, Lee Petherbridge, and Jay Kesan, Debate, *America Invents, More or Less?*, 160 U. Pa. L. Rev. PENNumbra 229, 242 (2012) (citing studies estimating that between five and twenty-nine percent of patents are licensed). [↑](#footnote-ref-296)
297. Jules L. Coleman, Risks and Wrongs 68 (1992). [↑](#footnote-ref-297)
298. *Id.* at 69. [↑](#footnote-ref-298)
299. Paul G. Mahoney, *The Common Law and Economic Growth: Hayek Might Be Right*, 30 J. Legal Stud. 503, 523 (2001) (concluding that "the strong association between secure property and contract rights and growth is causal, and not simply a consequence of simultaneity."). [↑](#footnote-ref-299)
300. 869 F. Supp. 2d 901, 913-14 (N.D. Ill. 2012). [↑](#footnote-ref-300)
301. *Apple, Inc.*, 869 F. Supp. 2d at 914. [↑](#footnote-ref-301)
302. Dan L. Burk, Intellectual Property in the Cathedral, in Access Challenges in the 21st Century 5 (Dana Beldiman et al. eds., forthcoming 2013) (noting that before eBay, there was a presumption in the lower courts “in favor of an almost automatic permanent injunction for patent owners who proved their cases against infringers.”), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract\_id=2170093. [↑](#footnote-ref-302)
303. Jaideep Venkatesan, *Compulsory Licensing of Nonpracticing Patentees After* eBay v. MercExchange, 14 Va. J. L. & Tech. 26 (2009) ("[I]njunction requests are often motivated by the leverage that they provide in subsequent licensing negotiations."). [↑](#footnote-ref-303)
304. NTP, Inc. v. Research In Motion, LTD., 418 F.3d 1282, 1291 (Fed. Cir. 2005). [↑](#footnote-ref-304)
305. NTP, 418 F.3d at 1325. [↑](#footnote-ref-305)
306. Tom Krazit & Anne Broache, *BlackBerry Saved*, CNET News, Mar. 3, 2006, *available at* http://news.cnet.com/BlackBerry-saved/2100-1047\_3-6045880.html. [↑](#footnote-ref-306)
307. *Id.* [↑](#footnote-ref-307)
308. *See* Menell, *supra* note 15, at 736 (noting arguments from the property rights movement “that exclusive patent rights meant that the patent owner should be fre to decide who may use a claimed invention.”). [↑](#footnote-ref-308)
309. eBay Inc. v. MerExchange, LLC, 547 U.S. 388, 393-94 (2006). [↑](#footnote-ref-309)
310. eBay, 547 U.S. at 391. [↑](#footnote-ref-310)
311. *E.g.*, Paice LLC v. Toyota Motor Corp., 609 F. Supp. 2d 620, 630 (E.D. Tex. 2009) (determining an ongoing royalty by applying the 25% Rule of Thumb, whereby the royalty is initially set at 25% of the profit margin on the product, and then reducing the amount accordingly in light of other factors, yielding a royalty of 1.5% of the value of the infringing part of the product). [↑](#footnote-ref-311)
312. Paice, 504 F.3d at 1313 n.13 (distinguishing the equitable remedy of an ongoing royalty from the grant of a compulsory license). [↑](#footnote-ref-312)
313. *See* Chien & Lemley, *supra* note 28, at 1 (noting that parties are generally unable to obtain injunctions in patent cases after *eBay*). [↑](#footnote-ref-313)
314. Chien & Lemley, *supra* note 28, at 9-10. [↑](#footnote-ref-314)
315. Merges & Kuhn, *supra* note 21, at 28-29. [↑](#footnote-ref-315)
316. Microsoft Corp. v. Motorola Inc., 696 F.3d 872, 885 (9th Cir. 2012). [↑](#footnote-ref-316)
317. Microsoft, 696 F.3d at 885 ("Whatever the appropriate method of determining the RAND licensing rate, it could well be that retrospective payment at the rate ultimately determined and a determination of the future rate, not an injunction banning sales while that rate is determined, is the only remedy consistent with the contractual commitment to license users of ITU standard-essential patents."). [↑](#footnote-ref-317)
318. eBay Inc. v. MercExchange, LLC, 547 U.S. 388, 396 (2006) (Kennedy, J., concurring). [↑](#footnote-ref-318)
319. Merges & Kuhn, *supra* note 21, at 48. [↑](#footnote-ref-319)
320. Guido Calabresi and A. Douglas Melamed, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral*, 85 Harv. L. Rev. 1089, 1092 (1972). Shapiro and Pearse list this article as the sixth most cited law review article of all time. Shapiro and Pearse, *supra* note 229, at 1489. [↑](#footnote-ref-320)
321. Burk, *supra* note 300, at 1. [↑](#footnote-ref-321)
322. Calabresi & Melamed, *supra* note 318, at 1124-25. [↑](#footnote-ref-322)
323. *Id.* at 1119. [↑](#footnote-ref-323)
324. *Id.* at 1126-27. [↑](#footnote-ref-324)
325. United States Department of Justice and United States Patent and Trademark Office, Policy Statement on Remedies for Standards-Essential Patents Subject to Voluntary F/RAND Commitments 6-7, Jan. 8, 2013, *available at* http://www.justice.gov/atr/public/guidelines/290994.pdf. [↑](#footnote-ref-325)
326. Menell, *supra* note 15, at 730. [↑](#footnote-ref-326)
327. J.H. Reichman, *Legal Hybrids Between the Patent and Copyright Paradigms*, 94 Colum. L. Rev. 2432, 2554-55 (1994). [↑](#footnote-ref-327)
328. Burk, *supra* note 300, at 2. [↑](#footnote-ref-328)
329. Microsoft Corp. v. Motorola Inc., 696 F.3d 872, 885 (9th Cir. 2012); Apple, Inc. v. Motorola, Inc., 869 F. Supp. 2d 901, 914 (N.D. Ill. 2012). [↑](#footnote-ref-329)
330. *E.g.,* Spur Industries v. Del E. Webb. Development Co., 494 P.2d 700 (Ariz. 1972) (applying the “coming to a nuisance” doctrine). [↑](#footnote-ref-330)
331. Burk, *supra* note 300, at 5. [↑](#footnote-ref-331)
332. *See id.* at 7. [↑](#footnote-ref-332)
333. eBay Inc. v. MercExchange, LLC, 547 U.S. 388, 393-94 (2006). [↑](#footnote-ref-333)
334. Chien & Lemley, *supra* note 28. [↑](#footnote-ref-334)
335. 19 U.S.C. § 1337 (2006). [↑](#footnote-ref-335)
336. Spansion, Inc. v. International Trade Commission, 629 F.3d 1331, 1359 (Fed. Cir. 2010). [↑](#footnote-ref-336)
337. 19 U.S.C. § 1337(d) (2006). [↑](#footnote-ref-337)
338. Chien & Lemley, *supra* note 28, at 14. [↑](#footnote-ref-338)
339. 19 U.S.C. § 1337(d) (2006); Spansion, Inc. v. International Trade Commission, 629 F.3d 1331, 1338 (Fed. Cir. 2010). [↑](#footnote-ref-339)
340. Chien & Lemley, *supra* note 28, at 19-20. [↑](#footnote-ref-340)
341. *Id.* at 25. [↑](#footnote-ref-341)
342. *See id.* at 41 (expressing the authors’ opinion that the ITC should not grant injunctions for SEPs). [↑](#footnote-ref-342)
343. United States Department of Justice and United States Patent and Trademark Office, Policy Statement on Remedies for Standards-Essential Patents Subject to Voluntary F/RAND Commitments 6-7, Jan. 8, 2013, available at http://www.justice.gov/atr/public/guidelines/290994.pdf. [↑](#footnote-ref-343)
344. 76 Fed. Reg. 72372 (Nov. 23, 2011). [↑](#footnote-ref-344)