“PAY NO ATTENTION TO THE COMPARABLE BEHIND THE CURTAIN!”

THE HARMs OF OPACITY IN STANDARD ESSENTIAL PATENT LICENSING

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ABSTRACT

Despite calls for greater transparency in standard essential patent (SEP) licensing from many quarters, there is a systemic lack of transparency at multiple levels of the global SEP licensing market, including questions of validity and essentiality in large portfolios, access to information from comparable licensing agreements, and sometimes the existence of past SEP disputes and the bases for their resolution. The current landscape incentivizes secretive, adversarial disputes instead of informed, arms-length negotiations, which creates inefficiencies and adds to the complexity of determining Fair, Reasonable, and Non-Discriminatory (FRAND) terms for SEP licenses. While this lack of transparency and the strategic use of information imbalances to game the system can create problems for the parties involved in a particular dispute, the inaccuracies and inefficiencies also harm the public interest. Market participants have legitimate business reasons to maintain confidentiality of sensitive commercial information alongside less legitimate reasons for withholding relevant data, and judges and arbitrators struggle to differentiate between genuine claims of confidentiality or trade secrecy and strategic obfuscation. These difficulties are more pronounced as SEP licensing moves into the Internet of Things (IoT), where potential licensees have more limited access to information and less experience navigating the FRAND terrain. Competition to disclose as little as possible reduces transparency and incentivizes information gamesmanship, the cumulative effects of which are harmful to the global market for SEPs and the resolution of FRAND disputes. This Article outlines the systemic lack of transparency in SEP licensing, the problems created by information disparities, and the resilience of—and harm created by—the opaque status quo. Mechanisms to increase transparency should be built into the global SEP system in order to increase efficiency, decrease transaction and litigation costs, maintain the balance of private and public interests in supporting innovation and standardization, and allow for adequate oversight.

DOI: https://doi.org/10.15779/Z38Q23R18R
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† Associate Professor and Dean’s Scholar in Intellectual Property Law, Texas Tech University School of Law. I am grateful for comments received from participants at the Berkeley-NYU Symposium on the Impact of the Patent System on Markets for Technology, held at the Haas School of Business, University of California at Berkeley, in February 2023.
I. INTRODUCTION

Digital interoperability is a quietly inescapable feature of everyday life. Advances in smart technologies and 5G connectivity have allowed for the proliferation of the Internet of Things (IoT) that incorporates networked devices into a wide range of everyday items and creates novel efficiencies and functionalities. The telecommunications industry has achieved the current high level of interoperability through the mechanism of industry-wide standard setting. Whether we are individually aware of it or not, the increasing presence of telecommunications technologies in our daily lives is also indicative of the increasing importance of industry standard setting on a global scale. The major telecommunications companies are positioned to develop valuable inventions and contribute to key standards that will benefit the global public. At the same time, disturbing the competitive balance of standard essential patent (SEP) licensing has the potential to harm billions.¹

Patent regimes strongly implicate both public and private interests; national patent laws already struggle to strike a balance between incentivizing innovation and harming marketplace competition. The increased market power arising from patented technologies in worldwide standards creates another level of complexity for legal regimes trying to maintain this crucial balancing act. Antitrust/competition authorities have sometimes viewed intellectual property with slight skepticism, given its monopolistic

characteristics. They have also traditionally approached standard setting with some caution due to the opportunities for collusion and other negative market effects. While the value of patent protection and standard setting in rapidly-moving, high-technology environments is generally thought to outweigh the risks of harm to the market, the potential for harm nevertheless remains. Although standard essential patents themselves are the product of public privileges (patents) and collective action (standards), the negotiations and disputes dealing with them are most often private and bilateral rather than public and cooperative.

The same system of collective private ordering that created SEPs also developed a widely adopted solution to the problems that can arise in standard setting in patent-heavy areas of technology: a requirement for SEP owners to declare their SEPs and license them on Fair, Reasonable, and Non-Discriminatory (FRAND) terms. The FRAND commitment is meant to prevent SEP owners from abusing the robust monopoly theoretically conferred by standard essentiality by refusing to license or licensing only at over-inflated rates (patent “hold-up”) ameliorating the risk of anticompetitive market harm.

While making an assertion of essentiality restricts an SEP owner by requiring them to license at FRAND terms and placing limits on the available remedies when faced with infringement, the assertion itself can also have the effect of increasing market power, which leads to habitual over-declaration of SEPs. Unlike the rigorous patent examination procedures conducted by many national patent offices, standard setting organizations (SSOs) usually do not examine declared SEPs to determine whether they are essential to the standard or even valid patents. Market participants, experts, and courts may disagree on which methods should be used for valuing portfolios and calculating

4. Jorge L. Contreras, Global Rate Setting: A Solution for Standard-Essential Patents?, 94 WASH. L. REV. 701, 709 (2019) (“In reality, despite the inherently bilateral, adversarial nature of litigation, the determination of a FRAND royalty is not strictly a bilateral matter.”)
6. In this Article, SSOs and Standard Development Organizations (“SDO’s”) are referred to collectively as SSOs for the sake of simplicity.
FRAND rates, and much of the data usually required to make these calculations is not readily available.

Partly because of the unique character of the global SEP market, the lack of information, and uncertainties about best practices, the FRAND landscape has left open opportunities for abusive and anticompetitive behaviors by both SEP owners and SEP implementers—and many players in the telecommunications industry have been both at the same time. SEP owners can make the most of their FRAND-encumbered patents through strategies such as over-declaration and excessive bundling of patents in their licensing portfolios, unreasonably requiring global licenses, or using confidentiality and non-disclosure agreements to hide data that might lower portfolio valuations. Implementers can take advantage of the FRAND commitment’s restrictive effects on the SEP owner’s ability to seek injunctive relief by simply manufacturing products incorporating standardized technology without a license; if caught, they can artificially prolong negotiations with the SEP owner by rejecting all licensing offers as not FRAND while continuing to manufacture: a practice known as “hold-out.”

The patent system is built on an expectation of openness and disclosure of valuable technology to the public. Lack of information has created innumerable challenges to the efficient operation of the market for SEP licenses, and private industry players, government authorities, judges, and academics alike have proposed means of improving access to relevant information and data. The European Union’s recent draft proposal for a Regulation on Standard Essential Patents recommends measures explicitly aimed at achieving greater transparency in licensing and rigor in monitoring standard essentiality, but it has received intense criticism from a variety of stakeholders.

8. Where injunctions are available, problems such as “constructive refusal to deal” can arise if a dominant SEP holder uses equitable relief to attempt seek royalties higher than FRAND “(excessive pricing theory of harm)” or to exclude downstream competitors “(exclusionary theory of harm).” A. Nicita & G. Corda, The “New Madison” v. the “Old Europe” Doctrine: On Re-balancing Competition Policy Towards SEPs, in THE INTERPLAY BETWEEN COMPETITION LAW AND INTELLECTUAL PROPERTY: AN INTERNATIONAL PERSPECTIVE 53, 54 (Gabriella Muscolo, Marina Tavassi eds., Kluwer Law 2019).


10. See SINGH, supra note 7, at 185–87.


In negotiation, mediation, litigation, and arbitration, parties and decisionmakers all struggle to differentiate between legitimate claims of confidentiality and strategic obfuscation. Sometimes both sides in a dispute are keen on minimizing transparency; even in the absence of an active dispute over access to information, the situation can still be to the detriment of the global markets for technology. Rather than providing a comprehensive solution to complicated jurisdictional problems in global SEP licensing disputes, the recent enthusiasm for arbitration is likely to increase the privacy and confidentiality of proceedings, which in turn will likely compound transparency problems and further obscure the licensing landscape for new entrants to the market.13 Resolving FRAND disputes—which implicate collective and public actions and rights—through straightforward bilateral proceedings means that the wider interest in having a functional global SEP licensing framework may not always be taken into account, particularly when those proceedings are private.

While some commentators assert that technology markets appear to function effectively and no genuine problem actually exists,14 others claim the problem may be getting worse as new markets open because these markets attract implementers who lack the information and experience with the SEP licensing landscape to know what they do not know. SEP licensing is rapidly moving into the IoT space where potential licensees, particularly small and medium-sized enterprises (SMEs), struggle to know who owns the SEPs in a given standard and cannot determine whether the cumulative rates for licensing SEPs might pose a barrier to their entry into the market.15

Looking at the system holistically, the current levels of opacity in the global SEP marketplace harm both the wider public and the individual private parties involved in bilateral transactions. In the former case, transparency levels are too low to allow for objective assessment, oversight, and procedural development of the SEP licensing system on behalf of the public interest. In the latter case, the lack of information pertaining to the validity and essentiality of declared SEPs and the lack of access to comparable licensing terms

disincentivizes negotiation and incentivizes information gamesmanship, hold-out, and contentious legal proceedings.

This Article sets out some of the present risks of information asymmetry and lack of transparency in SEP licensing, and then examines a variety of vested interests that militate to maintain the opaque status quo. While calls for greater transparency in SEP licensing are far from radical, it is important to analyze the legal and economic forces that militate to stand in the way of transparency and disincentivize adequate information exchanges. Transparency is unusually important in the SEP framework because of the special character of SEPs, the exceptional nature of their existence, their role in creating new markets, and their ability to facilitate or impede innovation. A broad view of the potential harm to the public interest at a structural level—combined with an appreciation of the strong vested interests that militate against transparency—is important to make an objective assessment of FRAND policy recommendations.

II. THE LACK OF TRANSPARENCY IN SEP MARKETS HARMS THE PUBLIC INTEREST

While the lack of transparency creates problems for individual market participants, the parties in any given transaction or dispute are not the only ones who have an interest. Their competitors and—importantly—the global public all have an interest in the wider system of standard setting, SEP licensing, and FRAND royalty rate calculations. While transparency regarding pricing information and agreements might seem to be an aberration—or even an anathema—in the commercial world, one must remember that patent protection and standard setting are both aberrations in the context of normal market behavior. Moreover, the concept of industry standard setting involving patented technology further defies the usual norms of the marketplace because it requires levels of transparency and oversight that would be inappropriate and potentially harmful in other markets.\(^\text{16}\) The fundamental bargain of the patent system is the disclosure of innovation in exchange for patent protection. Unlike other areas of commercial activity, when dealing with public patent systems the default position should be openness, with secrecy tolerated only in limited circumstances.

Granting patent rights is already an exceptional practice in traditional competitive markets, and it is an accepted fact that the public has its own stake

in the patent bargain. The word “patent” has Latin roots from the verb *pateo, patere* meaning “to be open, stand open, lie open.” Openness and transparency are foundational principles of the patent system; inventors receive a limited term of “protection from competitive exploitation” in exchange for bringing “new designs and technologies into the public domain through disclosure” for the benefit of all. The rights offered through the patent bargain incentivize innovation, but they also require disclosure to the public. In the recent case of *Amgen v. Sanofi*, the U.S. Supreme Court emphasized the role of enablement in ensuring adequate disclosure; patent specifications are meant to be sufficiently detailed and specific to allow the public access to the invention after the expiration of the patent term.

The role of antitrust/competition legislation is to safeguard the competitive process within markets, enabling the market participants to assess prices so that they reach an appropriate level without undue interference from individual firms or the government. Both standard setting and patent protection are public in nature and are exceptions to normal market functioning, and consequently they call for heightened public scrutiny because of the potential for abuse. Accuracy in calculating FRAND rates is important—not just to the immediate parties involved in a bilateral negotiation or dispute, but also to their competitors and the public. Both overvaluation and undervaluation of FRAND royalty rates have the potential to disrupt the market and harm innovation. It is unsurprising that the highly unusual marketplace for SEPs struggles to operate smoothly. Oversight is crucial in the context of FRAND because of the delicate balance to be maintained between apparently opposing forces: collaboration and competition; the sharing of

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17. “It is as important to the public that competition should not be repressed by worthless patents, as that the patentee of a really valuable invention should be protected in his monopoly.” Lear, Inc. v. Adkins, 395 U.S. 653, 663–64 (1969) (quoting Pope Manufacturing Co. v. Gormully, 144 U.S. 224, 234 (1892)).


21. Yoonhee Kim, *Lifting Confidentiality of FRAND Royalties in SEP Arbitration*, 16 COLUM. SCI. & TECH. L. REV 1, 32 (2014) (arguing that not all patent licensing terms need to be made public, but “a FRAND licensing rate calls for scrutiny in light of its public nature”).


knowledge and exclusivity; and a commitment to standards and radical innovation.24

The primary aim of the FRAND obligation is to maintain a balance of competition in the market for SEPs without unfair distortion from the collective standardization process. Pricing at FRAND rates should allow prospective implementers to predict future costs, adopt effective standards, and access technology markets efficiently, and their doing so should not inhibit further innovation in the industry.25 In recent years, private ordering has predominated in the standard setting world, but antitrust and intellectual property authorities should not be complacent about future risks to technology markets and to the patent system. Indeed, gaming disclosure of licensing terms has already been cited as a cause of competition problems.26 While SEP owners may eventually be compelled by courts to reveal the terms of past licenses because of their relevance in FRAND disputes, this raises the question of why confidentiality should be permitted at all.27 Effectively requiring litigation before other implementers can access information relevant to the FRAND determination is costly for the courts, inefficient for the parties, and promotes harmful hold-out.

Given the collective nature of standard setting and the public interests at stake, there is an argument that antitrust principles should be the predominant organizing framework of SEP licensing.28 While scrutinizing each and every license would be unnecessarily burdensome, and potentially harmful, government interference,29 incentivizing and/or compelling SSOs to incorporate greater transparency—starting in the earliest stages of the standard-setting and SEP-declaration process—could provide a more balanced strategy.30

How can antitrust/competition authorities provide limited but adequate oversight when they lack enough data about the overall market to assess whether market distortion is occurring even when individual claims come to

24. See Herbert Hovenkamp, FRAND and Antitrust, 105 CORNELL L. REV., 1683, 1743 (2020) (cautioning that oversight is necessary to prevent the “collaborative innovation that FRAND contemplates” from falling apart).

25. See Nicita & Corda, supra note 8, at 54.


30. EU Proposal 2023, supra note 11.
their attention? The current lack of transparency means that there are limited opportunities for objective scrutiny by government authorities, public institutions, the press, and academics who want to analyze and criticize the impact of the system from a public interest perspective.31 As Patterson observes, identifying and proving violations of antitrust/competition laws in a FRAND dispute, particularly in arbitration, can be very challenging for the authorities “because it is difficult to show collusion towards an unlawful objective when both sides of the dispute tend to have their own, different incentives for confidentiality.”32

The foundational principles behind both the patent system and standard setting suggest that the opacity prevalent at many levels of the standard setting and SEP licensing frameworks is symptomatic of an illness to be cured in the marketplace. Yet this symptom also hampers the development of a cure; the lack of transparency stifles the development of accepted procedures, methods, practices, and applicable laws when calculating FRAND rates and resolving disputes, which harms the market participants and the SEP licensing system.

For example, there is still no clear consensus on the best method for setting FRAND rates because there are competing methods of calculation and variation even within jurisdictions.33 Without transparency, the FRAND ecosystem struggles to develop consensus and effective procedures; confidential arbitration can cause further harm, preventing procedural precedents from emerging out of collective experience in resolving such disputes.34 Experienced players in the SEP licensing space have an increasingly significant advantage over new entrants to the market, who not only lack

31. Kung-Chung Liu, As a Matter of Standard for Asia and Beyond, in SEPs, SSOs AND FRAND: ASIAN AND GLOBAL PERSPECTIVES ON FOSTERING INNOVATION IN INTERCONNECTIVITY 1 [4.3.3] (2019) (“With FRAND royalties hidden in the dark, no creditable academic research or oversight from the Fourth Estate is possible, which will encourage patent abuse and trolls”).
32. See Patterson, supra note 26, at 879–80.
33. “Several methods of calculation have been developed in the case law around the world. Often combined, these methods are essentially the following: (1) the hypothetical negotiations approach; (2) the comparable approach; (3) the top-down approach; (4) the incremental value approach; and (5) the bottom-up approach” Matthew Dhenne, Calculation of FRAND Royalties: An Overview of Practices Around the World, 41(12) E.I.P.R. 755, 755 (2019).
34. Avinash Poorooye & Ronan Fehily, Confidentiality and Transparency in International Commercial Arbitration: Finding the Right Balance, 22 HARV. NEGOTIATION L. REV. 275, 301 (2017) (noting that one of the harms of commercial arbitration is that the “impossibility of or difficulty in obtaining these jurisprudential deliberations means that commercial law is effectively going underground”); Avantika Chowdhury, Alternative Dispute Resolution in FRAND Licensing: Economic Considerations for an Effective Framework, in THE INTERPLAY BETWEEN COMPETITION LAW AND INTELLECTUAL PROPERTY: AN INTERNATIONAL PERSPECTIVE 39, 46 (Gabriella Muscolo & Marina Tavassi, eds., 2019).
information gleaned from past transactions but are also unaware of the information-gathering techniques and calculation expertise of market veterans.  

III. THE LACK OF TRANSPARENCY IN SEP MARKETS HARMS THE MARKET PARTICIPANTS

Both industry participants and voluntary consensus standards bodies are equipped with the appropriate knowledge and experience to best facilitate the SEP licensing process. This is achieved, among other ways, by facilitating good-faith negotiations and the transparent exchange of information, as well as setting forth, and adhering to, clear intellectual property rights policies.  

While the quote above from a former United States Patent and Trademark Office (USPTO) Director acknowledges that good-faith negotiations and the transparent exchange of information are indeed required to facilitate the SEP licensing process, an increasingly severe problem is that not all industry participants do have adequate levels of knowledge and experience for them to participate meaningfully in the SEP licensing process or clear IP rights policies to follow. As IoT markets emerge, businesses are implementing standards that include SEPs for the first time, meaning they have little accumulated information about SEP licensing from the past or experience with the SEP landscape. Even when offered a genuinely FRAND license, implementers may be suspicious of whether it is indeed FRAND given the complexity and their lack of information—particularly if any disclosures they do receive are accompanied by robust non-disclosure agreements.  

Knowing the limitations the FRAND commitment places on relief, implementers may resort to infringement instead of seeking a license, which harms SEP owners and the


37. For example, a non-disclosure agreement at issue in Vringo v. ZTE Corporation provided that the information provided in licensing negotiations would “not be used or referenced in any way by any Party in any existing or future judicial or arbitration proceedings or made the subject of any public comment or press release.” NO 14-cv-498 (S.D.N.Y. June 3, 2015).
Swiftly reaching a licensing agreement with implementers is in the best interest of SEP owners, but an insistence on secrecy can make it more challenging for them to demonstrate to implementers—particularly those with less experience—that their offers are genuinely FRAND. Thus, the lack of transparency in the worldwide SEP licensing system contributes to an inefficient and unpredictable market situation that harms the would-be licensors and licensees alike.

Complaints about a lack of transparency in SEP licensing from prospective implementers usually fall into two broad categories: 1) lack of scrutiny as to the invalidity and/or inessentiality of patents in the portfolio; and 2) lack of information about comparable licensing agreements. There is an established basis for concerns regarding validity and essentiality. Over-declaration means many declared SEPs may not be practiced by a standard; one study found that 80% of patents declared essential were unlikely to be essential under the SSO’s own criteria. Implementers may have reasonable challenges to the validity of SEPs, and implementation may not, in fact, even infringe.

Negotiations commonly proceed thus: prospective implementers claim their refusals to pay proposed rates for SEP licenses are not anticompetitive hold-out, but rather the natural result of their lack of access to the information necessary to know whether the proposed rate is FRAND. Without accurate and objective assessment of the validity and essentiality of the patent portfolio or access to comparable licensing terms for similarly situated parties, assessing whether the rate offered is FRAND can be a guessing game. SEP owners respond that expense and impracticality are insurmountable barriers to any scrutiny of the validity and essentiality of their portfolio, and that genuine issues of confidentiality—including contractual non-disclosure and trade secrecy—prevent them from sharing relevant information. Requiring an NDA before sharing royalty rates can lead prospective licensees to assume that


41. Mark A. Lemley & Timothy Simcoe, How Essential are Standard-Essential Patents? 104 CORNELL L. REV. 607, 608 (2019) (finding the SEPs in their study more likely to be valid than most litigated patents but “significantly less likely to be infringed”).

42. The EU survey found that three quarters of the respondents identified lack of transparency and conflicting decisions as “key problems” in the FRAND landscape. EU Proposal 2023, supra note 11, at 6.
secrecy is imposed in order to allow for them to impose discriminatory rates in violation of the FRAND commitment.\textsuperscript{43} Implementers may be unaware of the number and identity of SEP owners who may require licenses following the implementation of a standard. This leads to fears about overpayment for the implementation of the standard, known as “royalty stacking.” The lack of transparency in the system as a whole, combined with SEP owners enforcing excessive confidentiality requirements—requiring NDAs and withholding relevant information—encourages implementer hold-out. Even if wholly unjustified, secrecy in this context can be viewed as a red flag that encourages prospective licensees to wait for litigation and court-ordered disclosure of information.\textsuperscript{44}

In theory, a competitive market for SEP licensing would need to be fully transparent to allow access to all the relevant data necessary to calculate FRAND rates with accuracy:

Ideally, complete information both ex ante and ex post on the existence, validity, essentiality, ownership, scope, enforceability of the relevant patents would improve decision-making, prevent opportunistic behavior and reduce transaction costs in the licensing process.\textsuperscript{45}

This ideal situation is far from the reality; negotiating parties are “at a great disadvantage if its opponent knows the terms of its licence agreements” while they remain unaware of the terms of their opponents’ agreements.\textsuperscript{46} Naturally, parties in FRAND negotiations or disputes want everyone else to show their hands without showing their own, and no one wants to bear the cost of essentiality or invalidity inquiries.\textsuperscript{47} If one market participant can get away with

\begin{footnotes}
\item[43.] Kathuria & Lai, supra note 27, at 357–58.
\item[44.] Fair Standards Alliance, Transparently FRAND: The Use (and Misuse) of Confidentiality Obligations in FRAND Licensing Negotiations (2017), https://fair-standards.org/wp-content/uploads/2017/02/170213-FSA-Position-PaperTransparency-FRAND-1.pdf (“Indeed, imposing excessive secrecy requirements, or failing to provide relevant materials, may in some cases encourage licensees to pursue court resolution over private negotiation, so as to obtain the benefit of the procedures for information exchange available in court matters.”).
\item[45.] Standardisation and SEP Licensing: A EU Policy Perspective, in The Interplay Between Competition Law and Intellectual Property, 14 (discussing European Commission, Setting out the EU approach to Standard Essential Patents, Communication from the Commission to the European Parliament, the Council, and the European Economic and Social Committee 712 (Brussels 2017)).
\item[46.] Id.
\item[47.] In its 2022 submissions to the EU Qualcomm agreed on principle that “that perfect knowledge of which patents are essential to a standard and infringed by a product would be beneficial for both patent holders and implementers” but objected to the cost, time, expertise
\end{footnotes}
gaming the system by withholding information, others will naturally try to do the same thing to remain competitive.48

Once negotiations have failed between an SEP owner and a potential licensee, the decisionmaker usually determines the FRAND rate for the SEP portfolio—attempting to predict the result of a hypothetical bilateral negotiation between the licensor and licensee, absent any unfair advantage that can arise from the implementers already committed to using the standardized technology.49 The non-discrimination element prevents price discrimination between similarly situated licensees.50 The bottom line in FRAND calculation is identifying a rate that will not allow an SEP owner to abuse its position or result in an implementer paying SEP owners collectively more than their technology is actually worth.51

While there are some arguments for greater disclosure of patent licensing generally, SEPs are different. Non-disclosure of information related to SEPs and comparable licensing terms makes it difficult for market entrants to ascertain their future licensing costs and to determine whether a license they are being offered is FRAND. This is nearly impossible to do before a dispute arises and can even be challenging during the dispute.52 Moreover, because non-discrimination is based on comparison with similarly situated licensees, both the context and the rate are important when assessing comparable licenses.53


50. See Patterson, supra note 26, at 831–32 (acknowledging that while views on non-discrimination differ, “different license terms are at least problematic”).

51. See Dhenne, supra note 33, at 760 (“Not all of these methodologies of calculation are mutually exclusive and may even be complementary but at the end of the day they should all be able to exclude abuses like patent hold-up and royalty stacking.”).

52. Kathuria & Lai, supra note 27, at 357.

While access to some commercial information—from the SEP owner, SSO, and potentially third parties—is crucial in making judgments and calculations of FRAND rates, it is possible that some of this information does give rise to a genuine need for protective secrecy. Unfortunately, one of the difficulties faced by a decisionmaker in a FRAND case—even in jurisdictions like the United States where extensive discovery is common—involves making decisions that balance the need for transparency with legitimate confidentiality concerns.  

Parties often claim that they must keep information about third-party comparable licenses confidential for purposes of litigation strategy, concern for commercial interests, binding non-disclosure or confidentiality agreements, or some combination of the above. Trade secrecy is also asserted to help maintain confidentiality, and it can be particularly difficult for an opposing party to challenge assertions of trade secrecy in some courts or arbitration proceedings, particularly where extensive discovery is not part of the legal culture.

When an SEP owner approaches an implementer asking them to pay for a license on FRAND terms, a lack of transparency surrounding an offer can cause suspicion even when an offer is genuinely FRAND. When a potential licensee, particularly one new to SEP licensing, lacks the means to assess the validity or essentiality of an SEP owner’s portfolio and has limited access to information about the SEP owner’s prior licenses, it may be impossible for the prospective licensee to determine to its satisfaction whether the offer is FRAND. Consequently, the lack of transparency increases suspicion and incentivizes implementer hold-out and escalation of disputes to the courts. By pursuing judicial resolution instead of setting a rate through private negotiation, prospective licensees can benefit from the increased access to information that comes with court-mandated disclosure. Ultimately, the low levels of transparency in SEP licensing encourage greater complexity and higher costs in transactions, harming the parties and the public.

Even where SEP owners are prevented from licensing at rates higher than FRAND, they may attempt to use their position of power to impose excessive secrecy through non-disclosure agreements as a prerequisite for entering into licensing negotiations. While secrecy regarding sensitive business information may be standard commercial practice in many markets, confidentiality in SEP


55. See Dhenne, supra note 33, at 759 (“Nothing will prevent the holder from invoking a trade secret in order to maintain the confidentiality of agreements concluded with third parties.”).

56. FAIR STANDARDS ALLIANCE, supra note 48.
licensing comes with a higher risk of harm to third parties.\textsuperscript{57} In litigation, parties often seek broader confidentiality protection than is desirable for third parties’ interests.\textsuperscript{58} In proceedings brought by InterDigital to enforce an arbitral award against Huawei arising from a FRAND dispute, both parties jointly moved for an order sealing the courtroom on the basis that “the written submissions and the record to date reference a significant amount of confidential business information.” The judge denied the request, stating it was “incredible to think that the parties could not make intelligent legal arguments without referring to highly confidential information.”\textsuperscript{59}

Unlike major players in the telecommunication industry equipped with sophisticated legal teams with decades of experience in FRAND negotiations and disputes, new implementers—even those with substantial resources—lack knowledge about SEP licensing that could deter them from entering the market.\textsuperscript{60} They may not know enough about the information they lack to even be able to ask about it. They also may not be aware of techniques using publicly available information from past disputes between parties to fill in some of the information gaps, as more experienced parties in the SEP licensing territory might attempt.\textsuperscript{61} This point regarding channels for information gathering was highlighted by Love and Helmers as a particular topic of concern in their submission to the EU Call for Evidence:

Our results may also suggest that confidentiality and price dispersion can be contributing factors to opportunistic behaviors like “holdup” and “holdout,” both of which leverage (at least to some extent)

\begin{itemize}
\item \textsuperscript{57} E.g., TQ Delta L.L.C. v Zyxel Comm’ns UK Ltd. & Anor (Rev 1) [2018] EWHC 1515 ¶ 22 (Ch) (2018).
\item \textsuperscript{59} InterDigital v. Huawei, 15 Civ. 4485 (JGK), 2 (S.D.N.Y. Feb. 11, 2016).
\item \textsuperscript{60} Apple Inc., Response to European Commission Call for Evidence on Intellectual Property – New Framework for Standard-Essential Patents, EUR. COMM’N, at 4 (May 9, 2022), \url{https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13109-Intellectual-property-new-framework-for-standard-essential-patents/F3257505_en} (referencing Feedback F3257505) (“An SME abandoned plans to develop a novel drone that monitors dangerous conditions for firefighting agencies due to uncertainty about product costs related to SEP royalties.”).
\item \textsuperscript{61} Christian Helmers & Brian J. Love, Submission to European Commission Call for Evidence for an Impact Assessment re: Intellectual Property – New Framework for Standard-Essential Patents, EUR. COMM’N, at 60 (May 9, 2022), \url{https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13109-Intellectual-property-new-framework-for-standard-essential-patents/F3257444_en} (explaining that their results “suggest experienced incumbents are advantaged in patent licensing markets to the extent that they possess private information gleaned from prior transactions and thus need not rely exclusively on the sparse public record.”).
\end{itemize}
information asymmetries about what royalty rates actually (or should) prevail in the market.  

While it may be true that larger SEP owners have little interest in taking action against SMEs and rarely do so, some patent assertion entities (possibly SMEs themselves) do choose to go after IoT SMEs.  

Moreover, implementers who are not also SEP owners are less likely to be members of SSOs or involved in the standard setting process, and many manufacturers in the IoT field are pure implementers. Information imbalances may benefit or harm parties on either side of an individual licensing negotiation, but it is true that SEP owners and SEP owner-implementers collectively have incentives to keep information about licensing as opaque as possible in their dealings with pure implementers. Since pure implementers are seldom involved in process, there is no impetus to incorporate their interests into SSO policy. Implementers from new markets may not know about the existence of a standard until after it has been finalized. Newcomers may also have more difficulty ascertaining the identities of all the SEP owners when implementing a standard, which may create a perception of high risk and uncertainty even when neither may exist. While it is important to offer predictable and reliable IP protection to encourage both innovation and standard development, it is also important to offer a degree of predictability and reliability to innovative implementers coming to patent licensing from diverse commercial backgrounds.  

Supporters of device-level licensing make a strong case for the efficiencies of licensing at only one level of the supply chain, but the inefficiencies created by a lack of transparency may be compounded by downstream licensing due to the larger numbers and nature of the potential licensees in this area, many of whom will not have access to methods of obtaining information that would aid them in the negotiation process. Greater transparency built into earlier

62. Id. at 60–61.
65. Iancu, supra note 36 (cautioning that “without predictable and reliable IP rights, fewer may be willing to invest the resources needed to develop robust standard-based technology; or, if they do develop such technology, to disclose it so that it can become a standard that others can use.”).
66. In its submission to the EU Call for Evidence, Apple Inc. raised concerns about the increase in transaction costs that would result from requiring numerous device level licenses
stages of the standard setting process would make it easier and more efficient for patent owners to demonstrate later that the license they are offering is indeed FRAND, whether in negotiations or in proceedings to obtain injunctive relief.

IV. ARBITRATION OF SEP LICENSING DISPUTES WOULD DECREASE TRANSPARENCY

These appeals illustrate yet again the dysfunctional state of the current system for determining SEP/FRAND disputes. Each side has adopted its position in an attempt to game the system in its favour. The only way to put a stop to such behaviour is for SDOs like ETSI to make legally-enforceable arbitration of such disputes part of their IPR policies.

As Lord Justice Arnold forcefully stated in Optis v. Apple, international commercial arbitration is seen as an attractive solution to the controversial question of FRAND rate setting on a global scale. Without the same constraints of territoriality and legal jurisdiction, global FRAND terms could be decided by a single tribunal. If effective, parallel proceedings would be avoided, disincentivizing aggressive forum shopping or racing to national courts. The USPTO and WIPO have already made joint efforts to facilitate the resolution of SEP disputes.

Parties in a FRAND dispute may welcome the efficiency, neutrality, and global reach of international commercial arbitration, but some may also appreciate both the privacy and opportunity for heightened confidentiality that it offers. Contractual requirements of confidentiality are already pervasive in

as well as the burden that such licensing practices could create for SMEs in the field of IoT. Apple Inc. Response to European Commission Call at Annex B, 23.

67. For a more extensive discussion of the arbitration of FRAND disputes, see Lauriat, supra note 13 at 59–78.


70. Jing He, Annie Xue & Melissa Feng, Could (China-Based) Arbitration Save the FRAND Rate Setting Game?, CIP ANTIRUST CHRON. 1, 3 (2021).

the SEP licensing territory; for example, concerns have been raised that overly broad non-disclosure agreements can result in license fees paid at multiple levels of the supply chain.\textsuperscript{72} Given the incentives for SEP owners to maintain secrecy of their commercial information, the opportunity to maintain high levels of confidentiality in the arbitration process would be likely to increase the existing transparency problems\textsuperscript{73} and lead to progressively less accurate calculations of FRAND rates.\textsuperscript{74}

Arbitration is voluntary and parties would be unlikely to agree on a dispute settlement procedure requiring full transparency;\textsuperscript{75} the limited discovery available in arbitration proceedings would provide even further opportunities for them to avoid disclosure of useful data. Common sense should lead us to assume that parties will contractually limit transparency for self-interested reasons;\textsuperscript{76} known disadvantageous comparable licenses could contribute to decision-making by a court or tribunal, which could then have further undesirable effects on future decisions and negotiations.\textsuperscript{77} With decreasing transparency and increasing information asymmetry, progressively less accurate FRAND rates would result from future arbitration proceedings.\textsuperscript{78}

While commercial arbitration awards usually have no precedential value, the outsized relevance of previous awards in FRAND valuations means that they might be used in future proceedings and therefore lead to increasingly less accurate calculations.

Parties could agree to build transparency into their bilateral arbitration proceedings, but they would have no reason to do so without legal

\begin{itemize}
  \item \textsuperscript{72} Agreement on Core Principles and Approaches for Licensing of Standard Essential Patents, June 2019, CWA 95000, ICS 03.140.
  \item \textsuperscript{74} See Lauriat, supra note 13, at 74–78.
  \item \textsuperscript{75} Union Oil Co. of California v. Leavell, 220 F.3d 562, 568 (7th Cir. 2000) (“People who want secrecy should opt for arbitration. When they call on the courts, they must accept the openness that goes with subsidized dispute resolution by public (and publicly accountable) officials.”).
  \item \textsuperscript{76} Mark Lemley & Carl Shapiro, A Simple Approach to Setting Reasonable Royalties for Standard-Essential Patents, 28 BERKELEY L. & TECH. J. 1135, 1145 (2013).
  \item \textsuperscript{77} See James H. Carter, FRAND Royalty Disputes: A New Challenge for International Arbitration?, in CONTEMPORARY ISSUES IN INTERNATIONAL ARBITRATION AND MEDIATION 78 (2015) (“Parties naturally wish to maintain the privacy of their royalty arrangements to the greatest extent possible; but it will be difficult for arbitrators to make rulings on what is nondiscriminatory without some access to information about related decisions and license.”).
  \item \textsuperscript{78} Eli Greenbaum, Forgetting Frand: The WIPO Model Submission Agreements, LES NOUVELLES 81, 83 (June 2015), https://www.wipo.int/amc/en/docs/frand_2015.pdf.
\end{itemize}
compulsion. Respect for party autonomy, secrecy of proceedings, and allowing the option of confidentiality are widely accepted norms of international commercial arbitration practice. Both parties may be happy to keep a FRAND arbitration award confidential for reasons of competitive advantage. For example, consider a case where an arbitral tribunal finds a high likelihood of invalidity and/or non-essentiality in a portfolio. The SEP licensor would not want to disclose the award for fear it would encourage others to infringe or bring a judicial or administrative challenge to the validity of its patent. The licensee would not want to lose the competitive advantage it has obtained by not having to pay royalties when its competitors must. Furthermore, even under the standard WIPO FRAND submission agreement, the disputants and the arbitrators will be required to keep the existence of a FRAND arbitration as well as the details of any award confidential, unless required to disclose them by law. While § 294 of the US Patent Act requires any arbitral awards addressing the validity and infringement of US patents to be filed with the USPTO, parties rarely comply.

Opportunities for parties to seek disclosure of relevant third-party agreements may also be more limited in arbitration, but decision makers in FRAND cases must be aware of the need to question claims of trade secrecy and confidentiality, even where third parties are involved or the parties in a dispute agree to maintain secrecy. More troubling is the fact that future decision makers in FRAND cases, whether national courts or arbitral tribunals, may not know that there was a dispute resulting in a relevant award. Incomplete FRAND rate setting data may lead to compounded flaws in future FRAND rate setting. Arbitrating FRAND disputes without requiring transparency could compromise the global SEP licensing framework in ways that would be hidden from public scrutiny.

80. Patterson, supra note 26, at 839.
81. See Lauriat, supra note 13, at 68–69.
82. 35 U.S.C. § 294 (c)-(e). See Letter from Traci Alexander, USPTO FOIA Specialist, to Barbara Lauriat (June 6, 2023) (on file with author) (identifying no records in response to a request for arbitration award notices filed since Jan. 1, 2017); Patterson, supra note 26, at 82.
83. The 2023 EU Proposal noted that national courts already struggle with FRAND determinations, “due to the lack of transparency and complexity of the issues that are central to such determinations, such as the essentiality of patents, comparable licenses and compliance with FRAND requirements.” EU Proposal 2023, supra note 11, at 5.
V. CONCLUSION: IMPROVING TRANSPARENCY IN FRAND LICENSING

When focusing on the specific private interests of a bilateral FRAND dispute, the public interest in the operation of the standard essential patent licensing system as a whole is easily overlooked. Standard essential licensing disputes are indicative of a larger global problem, which calls for a more holistic and systemic solution beyond simply resolving each individual dispute.

The much-maligned EU Proposal aims to improve negotiations and lower transaction costs for SEP holders and implementers by creating a central database with information about SEP ownership and essentiality and offering greater transparency about FRAND royalty rates. There are flaws in its prospective implementation, but it represents an attempt to address a general consensus that greater transparency would benefit the SEP licensing system overall. However, there needs to be a collective commitment to transparency. The disadvantages of being the first to show one’s cards in a negotiation are acutely felt and understandably avoided, particularly in the case of SEP owners. At the same time, the challenge of obtaining highly relevant commercial information in FRAND negotiations or calculations presents one of the strange paradoxes of the SEP universe. Under normal circumstances, it would be entirely inappropriate—and possibly in violation of antitrust and competition laws—for competitors to be sharing information about their various commercial licensing arrangements with each other. In the case of setting FRAND rates, however, where the standard-setting process is necessarily a cooperative enterprise, it becomes necessary to achieve efficiency in an already-unnatural market.

84. “A SEP owner should be prepared to provide a base level of information needed to assess whether the accused products infringe valid patent rights. This will typically include a list of the asserted patents, a detailed specification (e.g., claim charts) describing how the patents are allegedly infringed by the products implementing the standard, as well as other relevant information needed by the potential licensee to evaluate claims of infringement, validity, and essentiality, and to assess the proposed valuation.” Innovators Network Foundation Response to the European Commission’s Call for evidence for an impact assessment for a new framework for standard-essential patents, F3257385 (May 2022), https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13109-Intellectual-property-new-framework-for-standard-essential-patents/F3257385_en.
85. EU Proposal 2023, supra note 11, at 19.
86. Id. at 8.
87. “In order to ascertain whether the royalties that the SEP owners are charging are fair and free of discrimination, comparison must be made between the royalties they have charged for the same SEPs, even between royalties they have charged for different SEPs.” Liu, supra note 31, at ¶ 4.3.3.
This paradox has been debated at length—legal and regulatory authorities have repeatedly called for SSOs to require greater transparency from their members to no avail. More attention, along with more resources, should be focused at the SSO level; collective standard setting in private industry has always required careful scrutiny. Competition authorities should be insisting upon greater participation and representation from those representing the interests of potential implementers, whose interest in greater transparency is more immediate, at the SSO level.

Standards development has emerged as the responsibility of private industry and governments are understandably—perhaps admirably—wary of involvement. Placing the full responsibility of the system on SSOs, however, has demonstrably failed so far. Although some SSOs have considered increasing transparency through validity and essentiality checks and disclosure of ex ante licensing terms, there has been little action. Because standard setting is an exception to normal competitive market activity, there should be more involvement of implementers, neutral third parties, and national patent offices when it comes to shaping SSOs’ intellectual property rights (IPR) policies. The 5G Transparency Project’s pragmatic approach to qualitative review of SEPs, focusing strategically on patents where minimal effort and straightforward review would yield useful results, may represent the kind of realistic strategies that could help shift the balance in the right direction. Restrictions on the use of NDAs and general presumptions against claims of confidentiality by decisionmakers in FRAND cases would also aid in improving the general atmosphere. Incorporating greater transparency into the system at an earlier stage in a way that applies equally to all SEP owners will also make it easier for them to demonstrate later—whether in negotiations or

88. IGOR NIKOLIC, LICENSING STANDARD ESSENTIAL PATENTS 232 (2021). See also Mark A. Lemley, Intellectual Property Rights and Standard-Setting Organizations 90 CALIF. L. REV. 1889, 1965 (2002); Dornis, supra note 23, at 591 (“Transparency and information are thus of utmost importance. This will not be achieved through court proceedings alone—it must occur in the sphere of SSOs as well.”).

89. Ohana & Biddle, supra note 64, at 254 (noting that while there has been much discussion in SDOs about ways to encourage disclosure of licensing terms, “the number of SDOs that have developed ex ANTE disclosure rules is small”).

90. Ohana & Biddle, supra note 64, at 256 (“The relative prominence of patent holders compared to implementers in standards development processes may explain why efforts to encourage disclosure of future licensing terms (in groups that permit FRAND licensing) have been less broadly adopted than the development of rules to encourage the disclosure of patents.”).

in proceedings to obtain injunctive relief—that the license they are offering is indeed FRAND.

Competition authorities shifting their focus away from FRAND litigation and towards the standards development process could help force SSOs to address potential anticompetitive exclusions in the initial standard development process that lead to a lack of transparency in the system. While the public law aspects of SEP licensing certainly exist, the first point of concern for antitrust authorities should be at the SSO level, where the unusual market interactions begin, rather than focusing only on the fallout from disputes.

With disclosure identified as a fundamental organizing principle of contemporary patent regimes, the fact that such a level of transparency in SEP licensing is seen as an absurd utopian dream should worry more people. SSOs and their industry participants claim that the reality must rest “far below the full information benchmark” because “the provision of reliable information entails costs and requires time.” Of course, the patent examination process, upon which national patent systems rely, also takes time and resources. Reaching greater transparency for SEPs should not be considered an impossibility when the global importance of telecommunications standards and patented technology are acknowledged. In addition to the dedication of public resources, other kinds of private collective licensing might provide better predictability and efficiency, though they would not necessarily increase transparency and could increase the risk of antitrust violations. With appropriate oversight, however, patent pools could allow entrants from the IoT market greater access to SEP licensing while creating reliable profits for SEP owners.

In the current climate, parties in FRAND disputes are understandably going to try to obscure information that might be contrary to their interests in a present or future dispute if they are allowed to do so. Mechanisms to increase transparency should be built into the global SEP system to increase efficiency, decrease transaction and litigation costs, maintain the balance of private and public interests in supporting innovation and standardization, and allow for oversight. While SEP licensing should be recognized as both a private law and public law concern, this Article suggests that antitrust authorities focusing on

93. NIKOLIC, supra note 88, at 242.
the SSO level—insisting on greater involvement in SSO policymaking for potential implementers and neutral parties with relevant expertise—would be a solid beginning in improving transparency.

The FRAND commitment is meant to be the solution to a problem. The less transparent the SEP licensing system is and the longer the opacity continues, the greater the advantages that will come from being one of the players who possesses useful information and knows how to obtain more. This situation presents a barrier to new entrants to technology markets. Furthermore, decision-makers—whether national courts or arbitral tribunals—will not necessarily know about or have access to important information about past licenses and how their terms were set.

The complex public-private nature of FRAND cases should mean strong resistance against restricting the issues and parties in the immediate dispute without concern for the system as a whole. There are compelling interests—public and private, economic and non-economic—that may extend to consumers, third party competitors, and nations. Patent hold-out is clearly a problem but, at the same time, neither side of a business negotiation should be forced to take the other side’s claims at face value in the absence of adequate evidence to support an asserted valuation. Simply shifting the balance of power away from the implementer by expanding access to injunctive relief is a solution to many of the inefficiencies of the system, but it would also create new and different undesirable consequences.

Just as with standard setting itself, any solution to the problem of transparency must involve collective action. The private actors involved should be compelled towards greater transparency when facing their competition. The transparency problems of SEP licensing—and the incentives to maintain the opaque status quo—are problems for us all.