



# IP Literature Watch

CRA Charles River  
Associates

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This newsletter contains an overview of recent publications concerning intellectual property issues. The abstracts included below are as written by the author(s) and are unedited.

## IP & Antitrust

### **Tying and bundling involving standard-essential patents**

Koren W. Wong-Ervin (George Mason University, Antonin Scalia Law School – Global Antitrust Institute)

Evan Hicks (George Mason University, Antonin Scalia Law School, Students)

Ariel Slonim (George Mason University, Department of Economics, Students)

*George Mason Law Review, Forthcoming*

[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2956359](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2956359)

Competition agencies around the world, including in Canada, China, India, Japan, Korea, and the United States (at least prior to the current administration), have taken the unwarranted position that antitrust enforcement involving standard-essential patents (SEPs) upon which a patent holder has made an assurance to license on fair, reasonable, and nondiscriminatory (FRAND) terms should be subject to special rules or unique presumptions and burdens of proof. Recently, this approach has manifested itself in contentions (and in the case of the Korea Fair Trade Commission, an administrative decision) that it is somehow “unfair” (and therefore unlawful) for a SEP holder to license its patents, including both SEPs and non-SEPs, on a portfolio basis. This is because, as the contention goes, the SEP holder is either unfairly forcing implementers to license more than they desire or evading its FRAND assurance through package licensing. This article explains that neither of these are economically sound theories of harm, particularly in jurisdictions like the United States that do not punish the mere extraction of monopoly profits, but instead focus on the unlawful acquisition or maintenance of monopoly power. We set forth the mainstream alternative theories of harm — namely leveraging and monopoly maintenance — and apply them to common portfolio licensing practices of SEP holders, particularly those in the SEP-intensive telecommunications sector. We also address allegations that a vertically-integrated SEP holder’s decision to license at the end-user device level amounts to de facto bundling, relying on a recent paper by Dr. Jorge Padilla and Koren W. Wong-Ervin. In that paper, the authors show through a simple model that a vertically integrated firm’s de facto bundling of a component and its SEP portfolio will not result in foreclosure of the component market if: (i) the vertically integrated SEP holder does not assert its patents at the component level, and (ii) it licenses its SEP portfolio to end-device manufacturers on FRAND terms irrespective of whether they source components from its own subsidiary or from the non-integrated rival.

## Over-declaration of standard essential patents and determinants of essentiality

Marc Van Audenrode (Laval University – Département d'Économique, Analysis Group, Inc.)

Jimmy Royer (Analysis Group, Inc.; Université de Sherbrooke – Department of Economics)

Robin Stitzing (Nokia Corporation)

Pekka Sääskilahti (Compass Lexecon)

*Working paper*

[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2951617](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2951617)

Standard Essential Patents (SEPs) cover technologies necessary to meet industry standards that are established in Standard Setting Organizations (SSOs), but not all patents declared as SEPs are actually essential to the implementation of the standard or even covered by the standard specifications. SEPs are self-declared by patent-holding companies as essential for the implementation of the standard, and are not subject to any SSO review. SSO IPR policies, aiming to prevent patent ambush, contribute to over-declaration, because patent holders are required to declare all patents that might be essential. We analyze patent and company attributes that are associated with technical essentiality among SEPs of the 4G LTE cellular standard using a unique dataset. Our results show that a declaration against a specific technical specification document of the standard is a strong predictor of technical essentiality. While there is no general link between forward citations and technical essentiality, we find that citations from SEPs declared to the same standard predict technical essentiality. Patent ownership changes before the essentiality declaration do not affect standard essentiality. Our results provide guidance to the policy debate on standards, licensing of SEPs, and the patent system, and call for a recognition of SEP over-declaration in the economics literature on standardization and SEPs.

## Retooling the patent-antitrust intersection: insights from behavioral economics

Daryl Lim (The John Marshall Law School)

*Baylor Law Review, Forthcoming*

[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2953031](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2953031)

Behavioral economics has been embraced in finance and implemented by the government. In IP law, scholars have argued it can inform non-obviousness analyses, decipher patent damages, and develop a more nuanced narrative for incentivizing innovation. In antitrust law, scholars have argued for a larger role for behavioral economics in antitrust law more generally. Yet to date, there has been no consideration of the role of behavioral economics at the patent-antitrust intersection.

In presenting pioneering work on the issue, this Article explains the role heuristics and biases play at the patent-antitrust intersection, and identifies specific ways that courts can take them into account. If antitrust law based on neoclassical economics were analogized to an app, behavioral economics would be a patch, not an overhaul of the status quo. A court that understands how patentees, licensees, consumers, and enforcers decide can more accurately contextualize and assess competing narratives and articulate more effective remedies. In other words, behavioral economics can help judges better understand how to use the rule of reason to achieve more dynamically efficient outcomes.

Through the lens of patents, Part II traces how the discretion given to courts in applying the rule of reason has empowered them to treat patents first with disdain, and then with veneration under antitrust law. This shift parallels the ascendance of the importance of IP industries to the national economy and the rise of neoclassical economics. It also explains how the quest for dynamic efficiency has resulted in antitrust ennui, before mounting three challenges to the belief that antitrust policy deference toward patent owners promotes innovation. These challenges are that (1) deference underestimates anticompetitive harm and undervalues the value of gains from intervention, (2) courts are inconsistent about their insecurities in regulating innovation through antitrust: they worry about getting it wrong in

exclusionary abuses and yet approach vertical restraints and merger analysis with surprising confidence, and (3) patent deference is suspect as a matter of patent policy.

Part III explains how Actavis's requirement to scrutinize permissible patent conduct through the rule of reason also creates the challenge of developing a coherent and predictable framework of doing so. It argues that Kimble empowers courts to incorporate insights from behavioral economics. In doing so, courts can become more aware of their own cognitive biases and those of the parties appearing before them, giving them a chance to reach more dynamically efficient outcomes.

Part IV addresses the three criticisms against behavioral economics most pertinent to the patent-antitrust intersection: (1) that irrational conduct is irrelevant to antitrust analysis, (2) that behavioral economics fails to provide predictability to antitrust analysis, and (3) behavioral economics experiments are anecdotal and fail to provide antitrust with a generalizable organizing principle.

Part IV then identifies four areas where behavioral economics can help courts reach better outcomes: (1) analyzing anticompetitive harm and procompetitive justifications, by contrasting the Court of Appeals for the D.C. Circuit's approaches in *Microsoft* and *Rambus*, as well as the Supreme Court's approaches in *Actavis* and *Kimble*, (2) empowering judges by enlarging the role of intent, with lessons drawn from cases such as *Aspen Skiing*, *McWane*, and *Intellectual Ventures*, (3) determining market power and lock-ins in aftermarkets, with lessons drawn from *Kodak* and FRAND (fair, reasonable, and nondiscriminatory) litigation, and (4) crafting smarter remedies by looking at the EU's *Microsoft* decision. The discussion draws on past, recent, and ongoing cases to illustrate each area. Part V identifies areas for future research and concludes.

### **Book introduction: antitrust law for information goods**

Mark R. Patterson (Fordham University School of Law)

*Harvard University Press, February 2017*

[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2941573](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2941573)

Markets run on information. Buyers make decisions by relying on information about the products available, and sellers decide what to produce based on information about what buyers want. But the ways in which this market information is acquired has changed, as consumers increasingly turn to sources that act as intermediaries for information — companies like Yelp and Google. In addition, various sorts of informational standards and certifications are playing a greater role in determining what goods sellers produce; the LIBOR benchmark interest rate, for example, can be seen as such a standard.

Antitrust Law in the New Economy considers a range of competition problems that involve information in the marketplace. Sellers sometimes have the ability and motivation to distort the truth about their products when they make data available to intermediaries like Google and Yelp. The intermediaries themselves, in turn, may have their own incentives to skew the information they provide to buyers, both to benefit advertisers and to gain advantages over their competition. And sellers that agree on product standards may do so in circumstances in which the standards merely eliminate competition or may adopt standard-setting processes that do not prevent manipulation by individual sellers.

Broadly speaking, competitive harm in these instances arises primarily from the production of low-quality information. Yet consumer protection law is poorly suited to addressing the issues because the relevant information is often neither advertising nor “false” or “misleading.” Instead, the problems are better characterized as forms of exclusion or collusion in information markets. Those forms of conduct are normally addressed by antitrust law, though antitrust law has not traditionally focused on such conduct in these informational contexts. However, by treating information markets — markets for Google search

results, Yelp reviews, and LIBOR rates — as markets that are themselves proper subjects of antitrust scrutiny, antitrust law can be adapted to these problems.

The book discusses a range of ways in which antitrust can be applied to the manipulation of information for competitive advantage and the exploitation of consumers, and it considers related informational issues such as “confusopoly” and sellers’ use of consumers’ personal information. It also addresses how intellectual property law and legal protections for freedom of speech can limit the application of antitrust law. The goal of the book is to show that just as antitrust law serves to prevent anticompetitive conduct that results in supracompetitive prices, it can also prevent competitive harm from low-quality information.

### **Protecting intellectual property rights abroad: due process, public interest factors, and extra-jurisdictional remedies**

Koren W. Wong-Ervin (George Mason University, Antonin Scalia Law School – Global Antitrust Institute)  
*George Mason Law & Economics Research Paper No. 17-18*

[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2947749](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2947749)

Several recent antitrust investigations involving the licensing of intellectual property rights (IPR) have raised concerns about fundamental due process and the alleged use of industrial policy in antitrust investigations to lower royalty rates, particularly for standard-essential patents (SEPs), in favor of local implementers. These concerns raise serious problems for innovation, economic growth, and consumers, and are likely compounded by the use of extra-jurisdictional remedies whereby one agency imposes worldwide portfolio licensing remedies, including on foreign patents, for conduct that may be deemed procompetitive or benign in other jurisdictions, which may facilitate a lowest-common denominator approach.

## **IP & Innovation**

### **The drug innovation paradox**

Erika Fisher Lietzan (University of Missouri School of Law)

*University of Missouri School of Law Legal Studies Research Paper No. 2017-12*

[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2948604](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2948604)

In medicine today, we face an innovation paradox. The companies that develop new medicines are highly dependent on a period of exclusive marketing after approval, to fund their research and development programs. But longer research and development programs are not associated with longer periods of exclusive marketing. Instead the period of exclusive marketing may be shorter. Exclusivity that dwindles with each additional month of pre-commercialization research should lead innovators to be more efficient, but this Article explores a concern that the added factor of the drug regulatory system leads to a different result.

This Article contributes to the literature on incentives for pharmaceutical innovation as follows. First, it explains the theory of new drug approval and uses historical scientific and regulatory materials to illustrate that the premarket paradigm at any given time depends heavily on the state of clinical trial and statistical methodology and clinical pharmacology, as well as the prevailing regulatory climate. The length of any particular program is a function of the molecule and chemical class, disease and disease stage, and outcome that a firm tests, as well as scientific obstacles and opportunities that present themselves. Second, it presents empirical findings about the length of premarket programs from 1984 to 2016 using a dataset of regulatory milestones made public through FDA’s implementation of the patent term restoration provisions of the 1984 statute. This is the first piece of scholarship to combine these data with

the listed patents on those drugs, the initial labeling approved by FDA for those drugs, and their therapeutic categorizations, and the first to use these data to offer comprehensive descriptive statistics about the relationship between drug types and premarket timelines.

The findings have significant implications for innovation policy. The paradox in drug innovation is that we have chosen to incentivize research and development with a post-market award, but as the research and development timeline increases, the post-market reward for the innovation remains the same or decreases. If the length of the premarket process correlates with particular drug types, disease targets, or studied outcomes, we may be offering an inadequate incentive in entire areas of medicine where we have a critical need for new treatments.

### **Turning gold to lead: how patent eligibility doctrine is undermining U.S. leadership in innovation**

Kevin R. Madigan (George Mason University, Antonin Scalia Law School – Center for the Protection of Intellectual Property)

Adam Mossoff (George Mason University, Antonin Scalia Law School, Faculty)

*George Mason Law Review, Forthcoming*

[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2943431](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2943431)

Compared to other countries, the United States has long had a “gold standard” patent system. The U.S. has lead the world in securing stable and effective property rights in cutting-edge innovation; most recently, in protecting biotech and computer software inventions. Presenting information from a database of 1,400 patent applications covering the same invention that were recently filed in the U.S., China, and the European Union, this Essay explains how this “gold standard” designation is now in serious doubt. Many of these applications represent pioneering, life-saving inventions, such as treatments for cancer and diabetes. All 1,400 patent applications were granted in both China and the E.U., but the same applications were all rejected in the U.S. as ineligible for patent protection. The cause of these rejections is the U.S. Supreme Court’s recent spate of decisions that upended patent eligibility doctrine, especially as it has been applied to high-tech and biotech innovation. The U.S. patent system is now mired in uncertainty, except for the firm knowledge derived from data on the massive numbers of invalidations of issued patents and of rejections of patent applications. In addition to highlighting some of the inventions from the database of 1,400 applications, this Essay discusses this uncertainty in U.S. patent law, how this is a key change from the innovation-spurring approach of the U.S. patent system in the past, and what this means for the U.S. as other jurisdictions like China and the E.U. become forerunners in securing the new innovation that drives economic growth and flourishing societies.

### **Discretionary disclosure and manager horizon**

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*Working paper*

[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2939852](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2939852)

We motivate and empirically test a model of discretionary disclosure in which a manager’s horizon, or incentive to maximize short-term stock price, varies. We argue that as the likelihood increases that a manager’s horizon is short, the manager will voluntarily disclose more frequently. We also argue that in the absence of disclosure investors will apply a greater discount to the value of the firm when the manager is more likely concerned about short-term stock price. We find evidence consistent with our predictions in an empirical setting that we argue lends itself well to models of discretionary disclosure: the choice to patent an innovation versus protect its value via trade secrecy.

### **Spill your (trade) secrets: knowledge networks as innovation drivers**

Laura G. Pedraza-Farina (Northwestern University School of Law)

*Notre Dame Law Review, Forthcoming*

[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2944701](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2944701)

Theories of intellectual property take the individual inventor or the firm as the unit of innovation. But studies in economic sociology show that in complex fields where knowledge is rapidly advancing and widely dispersed among different firms, the locus of innovation is neither an individual nor a single firm. Rather, innovative ideas originate in the informal networks of learning and collaboration that cut across firms.

Understanding innovation in this subset of industries as emerging out of networks of informal information-sharing across firms challenges traditional utilitarian theories of trade secret law — which assume trade secret protection is needed to prevent excessive private, self-help efforts to preserve secrecy. Doctrinally, knowledge network research suggests that the scope of trade secret protection in these industries should be narrow. In these industries, strong trade secret rights that grant managers tight control over employee-inventors' informal information-sharing practices are bad innovation policy. Rather, optimizing trade secret law requires tailoring the strength of protection to match industry characteristics, narrowing trade secret scope in those industries where informal information-sharing networks play a prominent role. In turn, because industry types tend to cluster around geographic centers, the importance of tailoring cautions against current trends towards uniformity by federalizing trade secret law and favors state experimentalism in designing trade secret law and policy.

## **IP & Litigation**

### **The patent damages gap: an economist's review of U.S. patent damages apportionment rules**

Anne Layne-Farrar (Charles River Associates; Northwestern University)

*Working paper*

[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2911289](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2911289)

As an economist, I find the current state of the law regarding damages for patent infringement – most particularly that relating to apportionment – frustrating at best and woefully incomplete at worst. Namely, damages case law for utility patent infringement provides two very different, but insufficient, guidance frameworks for calculating damages: the entire market value rule (EMVR) versus the smallest salable patent practicing unit (SSPPU) principle. The modern pair of EMVR and SSPPU options is far narrower than the approaches afforded by the original 1884 Supreme Court ruling establishing apportionment for damages, *Garretson*. In this paper, I present the economic case for expanding the allowable damages frameworks beyond EMVR or SSPPU, to fill in the gap in reasonable damages approaches created by an EMVR and SSPPU dichotomy.

### **A new perspective on FRAND royalties: Unwired Planet v. Huawei**

Jorge L. Contreras (University of Utah – S.J. Quinney College of Law)

*Working paper*

[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2949449](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2949449)

In *Unwired Planet v. Huawei*, Mister Justice Colin Birss of the UK High Court of Justice (Patents) has issued a detailed and illuminating opinion regarding the assessment of royalties on standards-essential



patents (SEPs) that are subject to FRAND (fair, reasonable and non-discriminatory) licensing commitments. Among the important and potentially controversial rulings in the case are:

1. there is but a single FRAND royalty rate applicable to any given set of SEPs and circumstances,
2. neither a breach of contract nor a competition claim for abuse of dominance will succeed unless a SEP holder's offer is significantly above the true FRAND rate,
3. FRAND licenses for global market players are necessarily global licenses and should not be limited to a single jurisdiction, and
4. the "non-discrimination" (ND) prong of the FRAND commitment does not imply a "hard-edged" test in which a licensee may challenge the FRAND license that it has been granted on the basis that another similarly situated licensee has been granted a lower rate, so long as the difference does not distort competition between the two licensees.

### **A comparative and economic analysis of the U.S. FTC's complaint and the Korea FTC's decision against Qualcomm**

Koren W. Wong-Ervin (George Mason University, Antonin Scalia Law School – Global Antitrust Institute)

Douglas H. Ginsburg (U.S. Court of Appeals for the District of Columbia Circuit; George Mason University, Antonin Scalia Law School, Faculty)

Anne Layne-Farrar (Charles River Associates; Northwestern University)

Scott Robins (George Mason University; Students)

Ariel Slonim (George Mason University; Department of Economics, Students)

*Forthcoming in Competition Policy International*

[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2947306](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2947306)

On January 17, 2017, the U.S. Federal Trade Commission (FTC) filed a lawsuit against Qualcomm Incorporated based on a "monopoly broth" or course of conduct theory for alleged monopoly maintenance in certain narrowly defined baseband processor markets. The vote to file the complaint was 2-1 over the dissent of now-Acting Chairman Maureen Ohlhausen, who described it as "an enforcement action based on a flawed legal theory (including a standalone Section 5 count) that lacks economic and evidentiary support, that was brought on the eve of a new presidential administration, and that, by its mere issuance, will undermine U.S. intellectual property rights in Asia and worldwide."

In a jurisdiction on the other side of the globe, the Korean Fair Trade Commission (KFTC) had issued an administrative decision against Qualcomm on December 28, 2016, concluding that the company employed an "unfair business model" with respect to the licensing of its 2G (CDMA), 3G (WCDMA), and 4G (LTE) standard-essential patents (SEPs) and the sale of its baseband processors, and imposed global portfolio-wide remedies and a fine of KRW 1.03 trillion (approx. US \$853 million).

This article provides a legal and economic comparative analysis of the FTC's complaint and the KFTC's decision, highlighting the fundamental differences between the two and setting forth some of the main economic and legal problems with each. As an initial matter, it is important to bear in mind that the FTC's complaint is not a decision, but rather a set of allegations filed in court to initiate the court's resolution of the issues. Meanwhile, Qualcomm has stated that it will appeal the KFTC's administrative decision, and has requested a stay from the Seoul Central District Court.

With respect to the substantive allegations, there are some similarities in the two cases but the main theories of harm differ significantly. For example, the KFTC concluded that Qualcomm possesses dominance in 2G, 3G, and 4G technologies: "As SEPs cannot be replaced by other technologies, a SEP holder gains complete monopolistic power by holding even a single SEP," while the FTC limited its

market power allegations to CDMA baseband processors and premium LTE baseband processors. Unlike the KFTC's decision, the FTC's complaint contains no allegation that Qualcomm engaged in unlawful tying or bundling by licensing on a portfolio bases, nor does the FTC allege that Qualcomm violated U.S. antitrust laws by allegedly requiring royalty-free cross-licenses.

To the extent that any other competition agency is relying upon the FTC's complaint to state a theory of harm with respect to SEP licensing practices, it would be well advised to read the complaint carefully. If a foreign agency is seeking FTC endorsement of any particular theory, it would be wise to reserve judgment until at least the appointment of new FTC Commissioners and, if the agency does not then withdraw the complaint, until the court has ruled on the FTC's ambiguous and highly controversial theories of harm.

### **Patent litigation data from US District Court Electronic Records (1963–2015)**

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Asrat Tsefayesus (United States Patent and Trademark Office)

Andrew A. Toole (United States Patent and Trademark Office)

*USPTO Economic Working Paper No. 2017-06*

[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2942295](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2942295)

Economists, legal scholars and policy makers are concerned about the impact of patent litigation on the rate and direction of US innovation and on the functioning of the US intellectual property system. At this time, however, there is no reliable, comprehensive, free and publicly accessible source of patent litigation data. As a first step towards overcoming this limitation, the Office of the Chief Economist (OCE) at the United States Patent and Trademark Office, in collaboration with the National Technical Information Service, undertook a patent litigation data pilot. This paper describes two patent litigation databases from which OCE generated comprehensive patent litigation datasets as a result of the pilot and is releasing for public use. First, we obtained the docket reports on the universe of patent litigation cases in PACER and RECAP and created a dataset for the period 1963-2015. Second, we captured the metadata for these cases, which includes information on the case identifier, parties involved, filing date, and district court location. We hope that free access to comprehensive data will help advance research on the evolving patent litigation landscape and its economic impact.

### **Reasonable certainty in contract and patent damages**

John M. Golden (University of Texas at Austin – School of Law)

*Harvard Journal of Law and Technology, Vol. 30, Special Symposium, at 257–278, 2017*

[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2938849](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2938849)

In the face of difficult-to-quantify private-law harms, courts commonly apply standards of reasonableness in assessing whether asserted damages have been proven with adequate certainty. In contract cases in particular, courts have a historical reputation for being demanding in applying a requirement of “reasonable certainty” for compensatory damages. Contract law’s reasonable certainty standard provides useful lessons for how courts might approach the award of reasonable royalty damages in patent law. Quite generally, contract law’s reasonable certainty standard indicates how courts can be demanding but also flexible in determining what constitutes competent evidence for a difficult-to-quantify harm. More specifically, judicial approaches to implementing the reasonable certainty standard suggest that, in calibrating and enforcing evidentiary standards for reasonable royalty damages, courts might helpfully consider the blameworthiness or egregiousness of parties’ conduct, the state of the art or of available evidence for proving damages, and the amount of damages alleged.



## Judge shopping in the Eastern District of Texas

Jonas Anderson (American University – Washington College of Law)

*Loyola University Chicago Law Journal*, Vol. 48, No. 539, 2016

[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2940895](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2940895)

Judge Rodney Gilstrap has a lot of patent cases on his docket. In fact, in 2015 there were 1,686 patent cases that were filed and assigned to Judge Gilstrap, an astronomical number for a single judge. Judge Gilstrap — one of eight federal judges who sit on the Eastern District of Texas — is so popular with patent plaintiffs that over one-fourth of all patent cases in the country are heard by him. This Article addresses the problems with allowing this judge shopping to occur. It reviews the scholarship on the topic that is almost universally opposed to judge shopping for reasons of judicial legitimacy. In addition to those concerns, this Article argues against judge shopping for a separate reason. Judge shopping is often a way that district courts compete for litigation. It is this competition that poses the greatest threat to judicial impartiality. To effectively root out judge shopping in patent cases, some form of venue reform is needed in patent law. Either congressional action or changes from the Supreme Court are required to more evenly distribute the patent cases across the country.

## IP Law & Policy

### The constitutionality of administrative patent cancellation

Greg Reilly (IIT Chicago – Kent School of Law)

*Boston University Journal of Science and Technology Law*, Vol. 23, (Invited Symposium Contribution) (Forthcoming)

[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2945639](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2945639)

Prepared for the Boston University JSTL Symposium “Bridging the Gap between the Federal Courts and the USPTO,” this article evaluates claims that adjudication of the validity of issued patents in the United States Patent and Trademark Office is unconstitutional. The constitutional challenges result from the expansion of administrative options to challenge and cancel issued patents in the America Invents Act of 2011 and have received favorable reception within the patent community and garnered at least some attention from the Supreme Court. This positive reception is surprising because the constitutional challenges are legally quite weak.

Although the challenges contend that Article III prohibits administrative adjudication of issued patents, the Patent Office review procedures involve limited review of federal statutory rights in a specialized area of law within the Patent Office’s expertise and in furtherance of the Patent Office’s core regulatory objective in evaluating and issuing patent claims. Supreme Court precedent indicates that Congress can use its Article I powers to opt for administrative adjudication in such circumstances without any Article III barriers. This is confirmed by the fact that Article III courts retain significant power over patent validity issues, both on direct review from the Patent Office cancellation proceedings and through the parallel track for challenging patent validity in district court litigation.

Nor is a challenge based on the Seventh Amendment right to a jury trial likely to succeed, as the Supreme Court has indicated that in the administrative context the Seventh Amendment issue is subsumed by the Article III analysis. The Takings and IP Clauses also would not bar Patent Office adjudication and cancellation of issued patents (and have only been raised in passing). In sum, because the Patent Office review procedures for issued patents are well within the mainstream of modern administrative adjudication, a finding that administrative patent cancellation is unconstitutional would not just undo Congress’s policy choices for the patent system but would also threaten large swaths of the administrative state.

## The modern pirate: toward a new standard for enhanced damages in patent law

Dmitry Karshedt (George Washington University Law School)

*UC Davis Law Review, Forthcoming*

[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2945696](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2945696)

Many policymakers, judges, and scholars justify patent law on economic-utilitarian grounds. It is therefore unsettling that when it comes to damages for patent infringement in excess of the compensatory baseline, courts have followed an approach that reflects primarily moral, rather than economic, considerations. The culpability standard for awarding enhanced damages to successful patent plaintiffs under 35 U.S.C. § 284 includes actual knowledge of the patent-in-suit. This standard stems from pre-industrial tort actions designed to punish egregious interpersonal behaviors such as assault, piracy, libel, and seduction, and to preserve public tranquility. But as the law developed to cover “depersonalized” torts committed by corporate defendants and expanded from its moral foundations to embrace economic reasoning, the range of cases in which punitive damages could be awarded broadened significantly. Specifically, courts relaxed the culpability standard by making it less subjective, allowing punitive damages for generalized reckless disregard for the rights of others. The recklessness approach is now dominant in the fields of negligence and products liability, which typically allow for punitive damages without actual knowledge of a specific victim or defect, and in other civil actions—including copyright and trademark infringement. Patent law, however, continues to be an outlier by requiring actual, subjective knowledge of the plaintiff’s patent and, in so doing, in effect clings to the old moral-opprobrium model of punitive damages.

Not surprisingly, this standard has led to anomalous results. For one thing, the actual-knowledge approach to enhanced damages discourages firms from searching for and reading relevant patents, an unfortunate state of affairs given the widely recognized notion that disclosure is a core function of the patent system. Moreover, in tension with notions of fundamental fairness, this approach sometimes treats potential infringers who make good-faith attempts to ascertain the nature of the patent landscape in the fields in which they operate—by, for example, looking for patents that they may be infringing on the United States Patent and Trademark Office website—worse than those that decide to bury their heads in the sand and do no patent searching whatsoever. But there is a prospect for improvement in the law. A recent Supreme Court decision, *Halo Electronics v. Pulse Electronics*, arguably pushed a reset button on the jurisprudence of enhanced damages. Although it acknowledged the pre-industrial, subjective conception of punitive damages in its discussion of “deliberate” and “wanton” infringements, the Court also pointed to the modern conception when it repeatedly referred to recklessness as an acceptable standard of culpability for enhanced damages in patent law.

I argue that, in failing to heed this guidance, the lower courts are making a mistake. I contend that installing recklessness toward patent rights of others as the threshold level of culpability for enhanced damages is consistent with the modern conception of punitive damages and utilitarian policies that it reflects. If applied properly, the proposed standard will mitigate the current doctrine’s perverse effect of discouraging reading of patents, encourage cost-effective patent searches, and take account of the vast differences in patent landscapes between various industries.

# Copyright Law

## **Bleistein, the problem of aesthetic progress, and the making of American copyright law**

Barton Beebe (New York University School of Law)

*117 Columbia Law Review* 319 (2017)

[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2947159](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2947159)

This Article presents a revisionist account of the 1903 Supreme Court case *Bleistein v. Donaldson Lithographic Co.* and the altogether decisive and damaging influence it has exerted on the making of modern American copyright law. Courts and commentators have long misunderstood Justice Holmes's celebrated opinion for the majority in *Bleistein* in two fundamental ways. First, we have misunderstood Holmes's oft-cited declaration that a work need merely express its author's "personality" to satisfy copyright law's originality requirement. Scholars have cited *Bleistein*'s — and our current law's — nominal originality requirement as conclusive evidence that literary romanticism did not significantly influence American copyright law. In fact, when understood in its specifically American cultural context, *Bleistein*'s reliance on "personality" shows the profound influence that specifically American literary romanticism has had on the law. Second, we have misunderstood Holmes's equally oft-cited declaration in *Bleistein* that judges should refrain from judging aesthetic merit. We have read Holmes's call for judicial aesthetic neutrality as addressed, like his invocation of "personality," to copyright law's originality requirement. It was not. It was a direct response to Justice Harlan's dissenting view (and the Sixth Circuit Court of Appeals' ruling below) that the aesthetic works at issue were unprotectable because they failed to satisfy the constitutional requirement, as then understood, that the works must "promote Progress" to qualify for protection under the Intellectual Property Clause.

Our misreading of these two crucial moments in *Bleistein* and, more importantly, of how they interrelate has had significant historiographical and practical consequences. As a historiographical matter, we have failed to appreciate the degree to which the opinion formed the principal turning point in the development of U.S. copyright law. The effect of *Bleistein* was to substantially advance the rise of "commercial value" as both the basis and purpose of copyright rights and to quicken the decline and eventual erasure of "personality" as a significant factor in the law. Perhaps more importantly, as a doctrinal and policy matter, our century-long misreading of *Bleistein*, particularly by courts, has only intensified both of these culturally regressive trends.

Drawing upon the tradition of American pragmatist aesthetic philosophy, this Article urges doctrinal reforms that may help to repair the damage that *Bleistein* has done. It advocates concrete reforms in functionality, transformativeness, and moral rights doctrine. The need for these reforms has grown more urgent. The technological and cultural conditions that originally underlay *Bleistein* have fundamentally changed. The pragmatist vision of aesthetic progress calls for reforms that seek to promote the progress of, rather than suppress, our current condition of massively distributed authorship, user-generated content, and, at least as an aesthetic matter, post-scarcity.

## **Intellectual property channeling for digital works**

Lucas Osborn (Campbell University Law School; University of Denver School of Law)

*Cardozo Law Review*, *Forthcoming*

[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2952083](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2952083)

Market economies are based on free competition, which can include copying. Yet intellectual property protection in the United States prohibits copying in certain circumstances to incentivize innovation and creativity. New breeds of digital works are challenging our historical application of intellectual property law. These include certain categories of software programs as well as digital manufacturing files. The

problem is that these new works look deceptively like works from a previous era, and thus courts might languorously treat them as they have older works. This would be a mistake. This Article analyzes these works in terms of existing intellectual property doctrine and constructs a normative framework for channeling the works among the different intellectual property regimes and even away from intellectual property protection altogether.

## IP & Asia

### **Comment of the Global Antitrust Institute, Antonin Scalia Law School, George Mason University, on the Anti-Monopoly Commission of the State Council's Anti-Monopoly Guidelines against Abuse of Intellectual Property Rights**

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*George Mason Law & Economics Research Paper No. 17-19*

[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2952414](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2952414)

This comment is submitted by the Global Antitrust Institute (GAI) at Scalia Law School, George Mason University in response to the Anti-Monopoly Commission of the State Council of the People's Republic of China's public consultation on its draft Anti-Monopoly Guidelines Against Abuse of Intellectual Property Rights. The GAI Competition Advocacy Program provides a wide-range of recommendations to facilitate adoption of economically sound competition policy, including how to analyze antitrust matters involving intellectual property rights.

### **AIPLA Comments on the Guidelines for Anti-Monopoly Enforcement against Abuse of Intellectual Property Rights**

Mark L. Whitaker (American Intellectual Property Law Association)

*E-mail to Qiu Yang (Office of the Anti-Monopoly Commission)*

[http://www.aipla.org/committees/committee\\_pages/Standards\\_and\\_Open\\_Source/Committee%20Documents/4-19-2017%20AIPLA%20Comments%20China%20Anti-Monopoly%20Guidelines.pdf](http://www.aipla.org/committees/committee_pages/Standards_and_Open_Source/Committee%20Documents/4-19-2017%20AIPLA%20Comments%20China%20Anti-Monopoly%20Guidelines.pdf)

Dear Mr. Qiu,

The American Intellectual Property Law Association ("AIPLA") welcomes this opportunity to submit comments on the draft Guidelines for Anti-Monopoly Enforcement against Abuse of Intellectual Property Rights ("IPRs") issued by the Office of the Anti-Monopoly Commission of the State Council of the People's Republic of China ("Guidelines").

The American Intellectual Property Law Association is a national bar association of approximately 14,000 members who are primarily lawyers engaged in private or corporate practice, in government service, and in the academic community. AIPLA members represent a wide and diverse spectrum of individuals, companies, and institutions involved directly or indirectly in the practice of patent, trademark, copyright, trade secret, and unfair competition law, as well as other fields of law affecting intellectual property. Our members represent both owners and users of intellectual property. Our mission includes helping establish and maintain fair and effective global laws and policies that stimulate and reward invention while balancing the public's interest in healthy competition, reasonable costs, and basic fairness.

As an initial matter, AIPLA commends the efforts of the State Council to consolidate prior work performed by other agencies, including the National Development and Reform Commission of the State Council (NDRC), State Intellectual Property Office (SIPO), and State Administration for Industry and Commerce (SAIC). This provides greater certainty and predictability for entities doing business in China. AIPLA has submitted comments previously with respect to those efforts, and appreciates that the current Guidelines reflect changes which are consistent with AIPLA's comments, including moving generally towards a rule of reason standard.

AIPLA remains concerned, however, that the Guidelines, including in its preface, appears to suggest that liability may be found for enforcement of IP rights in China where it may tend to exclude competition. The very nature of intellectual property rights is to exclude others from practicing the subject matter of the claimed invention. AIPLA suggests that further amendments making clear that the exercise of intellectual property rights, even to exclude a competitor, will not violate the antimonopoly law unless the conduct involves activity that monopolizes or has a tendency to monopolize a relevant market and to injure competition, as distinct from excluding individual competitors. It is also important to recognize that patents are necessarily territorial rights granted by individual governments that are enforceable only in the country where they are issued. Consequently, the Guidelines should not infringe on the right of each sovereign country to determine whether particular exercises of IPR impact competition within their respective jurisdictions and should not attempt to regulate competition or the use of IPRs beyond their borders. AIPLA hopes that its substantive comments will be useful to the State Council as it finalizes the Guidelines.

### **Institutional regime shift in intellectual property rights and innovation strategies of firms in China**

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Xuesong Geng (University of Toronto – Rotman School of Management)

Heli C. Wang (Hong Kong University of Science & Technology (HKUST) – Department of Management & Organization)

*Organization Science, Forthcoming*

[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2950895](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2950895)

This study develops a conceptual framework to understand the differential impact of formal institutional regime shift in intellectual property rights on the patenting and innovation strategies of Chinese and Western firms operating in China. We argue that to the extent that Chinese firms have been deeply embedded in China's informal institutions, they are less responsive to formal institutional changes than Western firms operating in China. Using the major China patent law reform of 2001 as an exogenous event, we find results consistent with our key arguments: With the strengthening of the previously weak (utility model) patent protection, Chinese firms are less likely to apply for such patents to safeguard their innovations than Western firms. However, this difference becomes less pronounced in regions with higher quality intellectual property rights and legal institutions that foster R&D and innovation, and when Western firms gain longer operational experience in China. This study advances our understanding of the intricate interaction between formal and informal institutions and specifically, how “stickiness” may arise in their substitutive relationship due to the embeddedness of firms in informal institutional environments. It also provides important implications for policy and innovation strategies for policymakers and firms in emerging economies.

## IP & Trade

### **Patents, copyright and competition: assessing the impact of trade deals on Canada**

Daniel Schwanen (C.D. Howe Institute – Research)

Aaron Jacobs (C.D. Howe Institute)

*C.D. Howe Institute Commentary 474*

[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2943476](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2943476)

The intellectual property (IP) provisions of the Comprehensive Economic and Trade Agreement (CETA) between Canada and the European Union, and of the Trans-Pacific Partnership (TPP), were among their most controversial features. Critics focused notably on strengthened protection for pharmaceutical patents in the CETA, and on the extended term of copyright in the TPP. While the TPP as negotiated may have been sunk by the withdrawal in January of the United States' signature, its IP provisions will very likely resurface in the context of the re-opening of the North American Free Trade Agreement demanded by the new US administration. In this paper, we review in detail the claims that strengthened protection for pharmaceutical patents would result in an increase in health care costs, and provide some estimates of our own. We also examine claims about the cost to Canadians of copyright term extension. In both cases, we find that the cost of these changes is likely to be well under what their critics have claimed, and considerably lower than the net gains for Canada otherwise offered by agreements like CETA and the TPP. Furthermore, we note that some changes to Canadian law under CETA actually support competition in the pharmaceutical industry. The cost of the IP provisions examined here could be reduced or offset by a variety of government policies: speeding up patent approval, promoting competition in the pharmaceutical industry, negotiating lower prices for drugs or, in the case of copyright, promoting the public domain or the accessibility of copyrighted material. There is little, in other words, suggesting insuperable costs to Canada from these provisions. Meanwhile, harmonizing basic IP rules with those of our trade partners and increasing our access to these large markets, is expected to have a positive effect on domestic innovators and copyright holders. Canada is a net importer of intellectual property, and in that sense, will incur some short-term costs as a result of higher net payments to patents and rights holders abroad. Yet Canada is also a net exporter of research and, increasingly, of culture. This indicates the potential for Canadians in the long term to become more active exporters of IP, and in that sense benefit from stronger IP protection themselves.

## Other IP Topics

### **All patents great and small: a big data network approach to valuation**

Andrew W. Torrance (University of Kansas – School of Law)

Jevin D. West (University of Washington)

*Virginia Journal of Law and Technology, Vol. 20, No. 3, 2017*

[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2942766](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2942766)

Measuring patent value is an important goal of scholars in both patent law and patent economics. However, doing so objectively, accurately, and consistently has proved exceedingly difficult. At least part of the reason for this difficulty is that patents themselves are complex documents that are difficult even for patent experts to interpret. In addition, issued patents are the result of an often long and complicated negotiation between applicant and patent office (in the United States, the United States Patent & Trademark Office), resulting in an opaque “prosecution history” upon which the scope of claimed patent rights depends. In this article, we approach the concept of patent value by using the relative positions of issued United States patents embedded within a comprehensive patent citation network to measure the importance of those patents within the network. Thus, we tend to refer to the “importance” of patents



instead of “value,” but there is good reason to believe that these two concepts share a very similar meaning. Our study examines both patent litigation and patent importance, and suggests that litigated patents tend to be more important than non-litigated patents, and the higher the federal court level in which patent litigation takes place the more important the patents there litigated tend to be. These findings are consistent with the findings of influential studies on patent value carried out by Allison et al. in 2004 and 2009, in which litigated patents were generally found to be more valuable than non-litigated patents and those litigated most often were found to be especially valuable. Our findings also reveal marked differences in the mean and median importances of patents litigated in different federal district courts. Finally, we find several geographic clusters of federal district courts characterized by the litigation of disproportionately important patents. These clusters do not cleanly correspond to traditional assumptions about where, geographically, important technologies, and the owners of patents that claim them, tend to be located. Somewhat unexpectedly, the largest federal district court cluster for highly important patent litigation spans the southern-central United States. Future studies will attempt to address a number of additional questions that arise out of our findings in this article.

### **Patenting bioprinting-technologies in the US and Europe – the 5th element in the 3rd dimension**

Timo Minssen (University of Copenhagen – Centre for Information & Innovation Law – Faculty of Law)  
Marc Mimler (Bournemouth University – Centre for Intellectual Property Policy & Management (CIPPM);  
Queen Mary Intellectual Property Research Institute)

2017, “*Patenting Bioprinting Technologies in the US and Europe– The 5th element in the 3rd dimension,*”  
*Working Paper, Chapter 7 in: RM Ballardini, M Norrgård & J Partanen (red), 3D printing, Intellectual  
Property and Innovation – Insights from Law and Technology. Wolters Kluwer, Forthcoming*

[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2946209](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2946209)

The opportunities and the broader implications of bioprinting raise a wide variety of crucial legal issues. These may range from the regulation of the science and its’ societal effects to questions regarding the commercialization of the technology. Regarding commercialization aspects, one issue that must be addressed concerns the question of what types of products and uses should be regarded as protectable subject matter under the relevant intellectual property right (IPR) frameworks. Considering that the availability IPRs is one of the factors that might have a great impact on where the greatest investments and scientific efforts in this technology will be made, this is an utterly important question. In addition to trade secrets, copyrights, trademarks and other IPR-related rights, patents will most likely play a major role in that respect and will be at the focus of this paper.

In this paper, we examine and discuss what sorts of bioprinting - inventions are being patented or would be - protectable under European and US patent laws. Rather than focusing on the highly relevant questions that 3D printing poses for patent infringement doctrines, IP governance, user-generated solutions and research exemptions, this paper concentrates on the question of patentable subject matter and patentability. To this end, we start out by (1) briefly describing the relevant state of the art in bioprinting. This allows us to better describe and understand the current bioprinting patent landscape (2), and to examine in how far any future inventions stemming from such technology would meet the most basic U.S. and European patent requirements (3). A related question is of course, if some bioprinting technologies should be categorically excluded from patentability, i.e. even when meeting the most basic patent criteria. We address this specific issue by discussing patent-limitations and morality exclusions from patent law (4), which will allow us to complete the paper with some concluding remarks (5).

## Trademark as a property right

Adam Mossoff (George Mason University, Antonin Scalia Law School, Faculty)

*George Mason Law & Economics Research Paper No. 17-15*

[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2941763](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2941763)

Although trademark is a property right, the conventional wisdom among modern commentators and prominent judges is that it is only a regulatory entitlement that promotes consumer welfare. This essay fills a lacuna in modern trademark theory by identifying why nineteenth-century courts first defined trademark as a property right, and how this explains the structure of trademark doctrines today. The key conceptual insight is that a trademark is a use-right that is derived from and logically appurtenant to a separate and broader property right owned by a commercial enterprise — goodwill. Trademark thus shares many conceptual and doctrinal similarities to other use-right-based property rights that are appurtenant to larger estates, such as easements and riparian interests. This conceptual thesis is important, because it explains the nature and limits of this property right, such as, among other doctrines, why trademarks must be used in the marketplace, why trademarks cannot be separated from a commercial enterprise's goodwill, and, perhaps most importantly, why trademarks are not full, independent property rights like a fee simple in land or title in a patent. The usufructuary nature of the property interest in a trademark thus clarifies what many scholars and judges view as its doctrinal peculiarities. It is only because they have unmoored trademark rights from their original definition and justification as use-right property interests that they are themselves confused about trademark rights and the nature of the doctrines that define and limit its use in the marketplace.

### About the editor

**Dr. Anne Layne-Farrar** is a vice president in the Antitrust & Competition Economics Practice of CRA. She specializes in antitrust and intellectual property matters, especially where the two issues are combined. She advises clients on competition, intellectual property, regulation, and policy issues across a broad range of industries with a particular focus on high-tech and has worked with some of the largest information technology, communications, and pharmaceuticals companies in the world.

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