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

Section 2 mangled: FTC v. Qualcomm on the duty to deal, price squeezes, and exclusive dealing

Douglas H. Ginsburg (U.S. Court of Appeals for the District of Columbia Circuit; George Mason University - Antonin Scalia Law School, Faculty)
Joshua D. Wright (George Mason University—Antonin Scalia Law School, Faculty)
Lindsey Edwards (Wilson Sonsini Goodrich & Rosati)

George Mason Law & Economics Research Paper No. 19-21

Judge Koh handed down a sweeping opinion in May 2019 condemning as antitrust violations many of Qualcomm's business practices related to the royalty rates it charged to license its SEPs. The district court opinion significantly expands the scope of liability for refusals to deal and for non-predatory pricing behavior, further eroding the longstanding symmetrical approach to antitrust enforcement regardless of the kind of property involved.

We find three glaring errors in the district court opinion. First, the court expands the exception to the general rule permitting refusals to deal, as laid out in Aspen Skiing, well beyond the outer boundary of Section 2 by applying it to contracts negotiated by Qualcomm over 20 years ago and by inferring the company was willing to sacrifice profits even in the face of evidence that the change in dealing was implemented to increase short-term profits. Second, the district court accepted a price squeeze theory—characterized by the FTC as a “tax” on OEMs transacting with Qualcomm’s rivals—directly contrary to the Supreme Court’s holding in linkLine. Third, the court erroneously concluded that Qualcomm’s exclusive dealing arrangements with Apple violate the Sherman Act, despite a glaring failure by the FTC to prove substantial foreclosure, contrary to modern antitrust precedent and economic theory, both of which make crystal clear that proof of substantial foreclosure is necessary to showing an anticompetitive effect from exclusive dealing.

The district court’s inappropriate extension of antitrust liability in three separate areas of well-settled antitrust doctrine is remarkable and threatens to upend important precedent that has successfully guided business conduct for years. Further, the remedy—aside from putting the nation’s security at risk and potentially
undermining U.S. leadership in 5G technology and standard-setting—transforms the role of antitrust courts from adjudicators to central planners, a role for which the Trinko Court expressly stated they are ill suited. The decision invites plaintiffs to use the Sherman Act to reach conduct that has been generally shielded from antitrust liability. That invitation is ill advised and should be rejected by the Ninth Circuit, and if necessary, the Supreme Court.

**Governing the patent commons**

Dirk Auer (International Center for Law & Economics (ICLE))
Julian Morris (International Center for Law and Economics; Reason Foundation; IEA, Institute of Economic Affairs, U.K.)

*Working Paper*


Thousands of patents underpin the technologies that power the digital economy. Coordination among firms developing and implementing these novel technologies has notably been facilitated in large part by Standards Developing Organizations (SDOs). Despite the evident benefits of standardization in general and SDOs in particular, certain aspects of these processes have come under severe scrutiny from scholars, antitrust authorities and courts. These critics argue that the standardization space suffers from two crippling market failures, namely “patent holdup” and “royalty stacking”. They thus conclude that opportunistic firms will squeeze their rivals’ profits, harming consumers and stifling innovation in the process. However, recent empirical scholarship strongly suggests that patent holdup and royalty stacking rarely, if ever, occur in the standardization space.

Against this checkered backdrop, our paper argues that standardization is an emergent phenomenon, where parties have strong incentives to design institutions and contractual relationships that mitigate the scope for opportunistic behavior (including patent holdup and royalty stacking). The paper explores how these incentives have likely enabled firms to avoid severe market failures. We argue that ignoring these complex market dynamics may cause antitrust authorities and courts to do more harm than good (notably by exacerbating patent holdout behavior). The paper then reviews recent regulatory interventions and questions whether this has indeed been the case. Finally, we suggest that antitrust authorities and courts should draw inspiration from acclaimed scholarship regarding both the evolution of cooperation and the management of common-pool resources.

**IP & Licensing**

**Corrected measures for patent citation analysis: Accounting for published patent applications**

Jeffrey M. Kuhn (University of North Carolina (UNC) at Chapel Hill – Kenan-Flagler Business School)
Kenneth A. Younge (Ecole Polytechnique Fédérale de Lausanne)

*Working Paper*


This article investigates patent citations made to published patent applications. Although citations to patent publications are conceptually indistinguishable from citations to granted patents, they are omitted from all standard measures. We find that publication citations are a large and growing portion of patent citations, and that they differ statistically from citations to granted patents on several important dimensions. We conclude that omitting publication citations is likely to generate biased measures, and that standard measures of patent citations should be corrected. We release our computer code and corrections for future use.
Global drug diffusion and innovation with a patent pool: The case of HIV drug cocktails
Lucy Xiaolu Wang (Cornell University – Department of Economics)
Working Paper

Designed to reward innovation, patent protection often leads to high drug prices that make life-saving medicines unaffordable for patients. This tension further induces increasing patent infringement and invalidation to reduce prices, particularly in developing countries. The situation is serious for treatments that require multiple drugs owned by different firms with numerous patents, notably for HIV. I study the impact of the first joint licensing platform for drug bundling (the Medicines Patent Pool) on global drug diffusion and innovation. The pool allows generic firms worldwide to sublicense drug bundles cheaply and conveniently for sales in a set of developing countries. I construct a novel dataset from licensing contracts, public procurement, clinical trials, and drug approvals. Using difference-in-differences methods, I find robust evidence that the pool leads to a substantial increase in generic supply of drugs purchased. In addition, the branded-drug makers and other entities, such as public institutions, respond to the pool with higher R&D inputs as measured by clinical trials. The R&D input increase is accompanied by increases in generic drug product approvals. Finally, I estimate a structural model to quantify welfare gains and simulate counterfactuals. The total benefit far to consumers and firms exceeds the associated costs.

Trends in financial innovation: Evidence from fintech firms
Omer Unsal (Merrimack College–Girard School of Business –Department of Accounting and Finance)
Blake Rayfield (Indiana State University – Scott College of Business; Networks Financial Institute)
International Finance Review (Forthcoming)

In 1971, the patent for the Automated Teller Machine (ATM) was awarded to David Wetzel. While possibly not the first application of financial technology, since 1971 time, the innovation in the financial industry has grown beyond expectations. However, most studies in innovation ignore the financial sector altogether. In this study, we investigate financial technology firms and innovation. After identifying firms that are considered financial technology, we collect innovation outcomes such as patents and data breaches associated with those firms. We show that patent activity has enjoyed modest growth year over year, however firms still have challenges to overcome such as market risk and data security. This paper serves as a perspective on financial technology. This paper is also forthcoming in the International Finance Review.

Exploring uncharted territory: Knowledge search processes in the origination of outlier innovation
Madeline King Kneeland (Cornell SC Johnson College of Business)
Melissa A. Schilling (New York University – Department of Management and Organizational Behavior)
Aharonson Barak S. (Tel-Aviv University)
Forthcoming, Organization Science

Most innovation builds closely on existing knowledge and technology, delivering incremental advances on existing ideas, products, and processes. Sometimes, however, inventors make discoveries that seem very distant from what is known and well understood. How do individuals and firms explore such uncharted technological terrain? This paper extends research on knowledge networks and innovation to propose three main processes of knowledge creation that are more likely to result in discoveries that are distant from
existing inventions: long search paths, scientific reasoning, and distant recombination. We explore these processes with a combination of a large and unique dataset on outlier patents filed at the US Patent and Trademark Office and interviews with inventors of outlier patents. Our exploratory analysis suggests that there are significant differences in the inventor teams, assignees, and search processes that result in outlier patents. These results have important implications for managers that wish to encourage more exploratory search for breakthrough innovation.

**Gridlock economy: How too much ownership wrecks markets, stops innovation, and costs lives (introduction)**

Michael Heller (Columbia University – Columbia Law School)

Twenty-five new runways would eliminate most air travel delays in America; fifty patent owners are blocking a major drug company from creating a cancer cure; 90 percent of our broadcast spectrum sits idle while American cell phone service suffers. These problems have solutions that can jump-start innovation and help save our troubled economy. So, what’s holding us back?

**How to protect a mobile app**

Massimo Barbieri (Politecnico di Milano)
*Working Paper*

A mobile app is a type of software program developed for use on handheld computing devices, such as smartphones, tablet computers or smartwatches. As such, different types of intellectual property rights (IPRs) can protect a mobile app: patents, copyright, trademarks and industrial design. Mobile apps are patentable, being no different from any other software, if they have a technical character, produce a technical effect, and if the patentability requirements (novelty, inventive step and industrial application) are met.

Software is often a black box and therefore software inventions are difficult to evaluate, and the prior art is hard to find. Moreover, the patenting procedure is expensive, especially for a start-up company. Whether to patent or keep an invention secret is a business decision. Before proceeding with the filing of a patent application, a prior art search is recommended.

**Learning by selling, knowledge spillovers, and patents**

Yves Guéron (Seoul National University)
Jihong Lee (Seoul National University)
*Working Paper*

We examine the incentives for experimentation in the context of cumulative innovation. A monopolist chooses whether to sell early-stage product or perform costly R&D to advance the technology. Early market participation facilitates learning about demand but invites knowledge spillovers and competitive entry. We characterize the firm’s optimal threshold policy and analyze the impact of various market characteristics. The model admits both under- and over-experimentation vis-a-vis the socially optimal policy. A patent system that discriminates the technology by the stage in its lifecycle can control the pace of innovation and restore the socially optimal level of experimentation.
IP & Litigation

**Modeling patent clarity**
Jonathan H. Ashtor (Paul, Weiss, Rifkind, Wharton & Garrison LLP; Benjamin N. Cardozo School of Law)  
*Working Paper*

This article employs sophisticated machine learning techniques to model patent clarity. Using these models, unprecedented empirical analyses of the relationships between patent clarity and the public and private value of patent rights are conducted.

Specifically, I train a variety of machine learning models on a large dataset of U.S. patent applications that were rejected for failure of the “written description,” “enablement” or “definiteness” requirements under 35 U.S.C. § 112. These rules generally test the form and language, rather than the substance, of a patent’s disclosure, providing a useful proxy for clarity. I draw from the text of over 2 million published patent applications to construct an array of features regarding the disclosures and claims of these applications. The machine learning models trained on these features achieve 70% accuracy in predicting § 112 rejections.

Using these models, I first study how patent clarity relates to cumulative innovation. Patents serve a public function by disclosing new and useful technical information that other inventors can learn from. I find a significant positive correlation between patent clarity and cumulative innovation by third party inventors.

Next, I study the relationship between clarity and patent enforcement. Litigation theory teaches that unclear legal rights can lead to and exacerbate disputes. I observe both relationships empirically, finding that as patent clarity decreases, there is a significant increase both in the likelihood of enforcement actions and in the duration of these cases.

These results empirically demonstrate the importance of patent clarity to the social and private functions of patents. They also serve to validate the methodology employed herein and pave the way for future in-depth empirical studies of patent clarity.

**Dealing with intellectual property (IP) landmines: Defensive measures to address the problem of IP access**
Jiyoon Chung (The Chinese University of Hong Kong, Shenzhen)  
Annika Lorenz (Utrecht University —Copernicus Institute of Sustainable Development)  
Deepak Somaya (University of Illinois at Urbana-Champaign – Department of Business Administration)  
*Research Policy, July 2019*

Intellectual property (IP) rights have become an important strategic battleground, in which IP owners increasingly build barriers that impede firms from operating in the marketplace. Although research has examined property preemption as one approach to defend against being blocked by others’ IP, a broader palette of defensive IP measures to address problems of missing access to external IP has received less scrutiny. In qualitative analyses of a representative survey of German firms, we find that key firm-level attributes — firm scope, innovation expenses, product innovation, collaboration breadth, and use of patents — are associated with a need to use such defensive IP measures. We also examine the firm-level attributes associated with a firm’s choice among eight possible types of strategies for IP defense, and how certain types of defensive IP measures are systematically interrelated in use. Qualitative interviews with seventeen intellectual property practitioners complement, and help to interpret, our quantitative findings. Implications for future research, and for managers and policymakers are discussed.
This chapter considers the object and purpose of key international treaties regulating trademark law from a human rights perspective. It uses the example of tobacco plain packaging legislation to argue that trademark law can engage important human rights issues and a human rights approach is relevant to an analysis of the object and purpose of TRIPS and the Paris Convention. Different interpretations of the object and purpose of TRIPS permit or exclude a human rights perspective. This can be contrasted to an interpretation of the object and purpose of the Paris Convention. Disputes regarding tobacco plain packaging provide a valuable case study to consider the relationship between human rights and trademarks, engaging questions about human rights to health, freedom of expression, development and protection of moral and material interests in intellectual property itself.

The important public health arguments raised by disputes regarding tobacco plain packaging legislation in the WTO (the WTO Disputes) can be viewed from the perspective of the human right to the highest attainable standard of health. Despite this, a human rights perspective has not been the emphasis of the arguments made by Australia and was not considered by the Panel that determined the WTO Disputes. This chapter will argue that the object and purpose expressed in the preamble and articles 7 and 8 of TRIPS engages human rights concerns when it is applied to the tobacco plain packaging dispute.

Are foreigners treated equally under TRIPS?

Gaétan de Rassenfosse (Ecole Polytechnique Fédérale de Lausanne)
Paul H. Jensen (University of Melbourne – Melbourne Institute of Applied Economic and Social Research)
T’Mir Julius (University of Melbourne – Melbourne Institute of Applied Economic and Social Research)
Alfons Palangkaraya (Centre for Transformative Innovation, Faculty of Business and Law, Swinburne University of Technology)
Elizabeth Webster (Swinburne University of Technology; University of Melbourne – Melbourne Institute of Applied Economic and Social Research)

Working Paper

The TRIPS Agreement, administered by the World Trade Organization, ensures the smooth functioning of the international patent system. It promises among others that local and foreign firms are treated in the same, non-discriminatory manner. We test for whether national treatment has been upheld in the five largest patent offices and document the existence of a systematic bias against foreign firms in patent examination decisions. We find that filing international patent applications under the Patent Cooperation Treaty can reduce some of the bias.

An introduction to data property ownership rights and data protection responsibilities

Rob Frieden (Pennsylvania State University – Dickinson School of Law; Pennsylvania State University, Bellisario College of Communications and Penn State Law)

Working Paper
This paper examines data property with an eye toward offering definitions that distinguish this type of property interest from that available for conventional intellectual property. The paper also will identify the legal rights vested in data creators as well as data protection rights for individuals whose online activities generate data that can be collected, collated, analyzed and sold.

The paper identifies the interests of various constituencies and stakeholders including governments, commercial ventures, civil society and individuals. It will report on objectives, strategies and work products generated by national governments, trade associations, companies and public interest groups offering legislative, policy and regulatory recommendations. More broadly, the paper identifies current best practices in data property protection by examining proposed and existing safeguards in specific countries and regions.

Copyright Law

**The same problem, different outcome: Online copyright infringement and intermediaries’ liability under the US and the EU law**
Lia Shikhiashvili (Chicago-Kent College of Law – Illinois Institute of Technology)
*Working Paper*

The protection of copyright owners’ rights online is much more challenging with the significant increase of the digital marketplace. Although the problem is same for both the United States and European Union, their approach how to solve it is hugely different. Recently, the European Union has adopted a new Copyright Directive, which, in article 17 (ex-article 13) indirectly introduces filtering and monitoring obligations to online platforms that allow users to upload content. It creates the “de facto strict liability regime” for internet intermediaries to root out copyright-infringing content. In contrast with this approach, in the United States internet intermediaries still benefit from the legislative immunities that exclude them from copyright-infringement liability uploaded by their users. This article compares the new European Union directive with the United States approach and shows that these differences might create uncertainties in the digital marketplace. This article also reviews potential consequences of the article 17 and demonstrates the need of harmonized secondary liability regime to Internet Service Providers at European level, without sacrificing safe harbor provisions. The article proposes the adoption of “fair use doctrine” and “fair remuneration” provisions as an effective and alternative tool to protect the rights of all players in the digital scene and simultaneously tackle the so-called “value gap” problem.

**The concept of the copyright work under EU law: More than a matter of taste**
Jani McCutcheon (The University of Western Australia Law School)
*Forthcoming, 2020, European Law Review*

In Levola Hengelo BV v Smilde Foods BV the Court of Justice of the European Union was asked, inter alia, to make a preliminary ruling on whether EU copyright law precludes the taste of food from being protected as a copyright work. This generated expectations that the ECJ and the Advocate General would clarify the scope and meaning of the copyright “work” under EU law. Instead, both the Court and the AG essentially concluded that taste could not be a copyright work because it could not be identified with sufficient objective precision. The article supplements the Court’s reasoning by expanding significantly on why taste must, and yet cannot, be capable of objective identification, and explaining other essential attributes of the copyright work which exclude taste from copyright. The article then interrogates what clues the ECJ has provided on the scope of the copyright work under EU law, and whether it could, and should, have done more to explain the work’s concept and boundaries. The article concludes that while Levola leaves us no closer to a harmonised definition of the copyright work in EU law, it was too ambitious to expect the ECJ to achieve this, particularly given the difficulty of theorising and conceiving of the work in the abstract, and independent to copyright’s shaping filters.
EU Directive on copyright in the digital single market and ISP liability: What's next at international level?
Avv. Natalia Curto (Chicago-Kent College of Law – Illinois Institute of Technology; Ordine Avvocati di Milano; Colegio Publico de Abogados de Buenos Aires)
Working Paper

The recent approval of the Directive (EU) 2019/790 on copyright and related rights in the Digital Single Market (DSM Directive) by the European Union has caused a considerable storm among the internet users, scholars, practitioners and industries. Particularly controversial was the original obligation of ISPs to filter the content upload by platforms users with the purpose of avoiding copyright infringements in the draft of Article 13. For this reason, the Directive has been even named the “death of the internet”. The final text (renumbered in Art. 17) provides for no general monitoring obligation, however, the ISPs will likely be required to implement filtering measures to avoid liability for unauthorized acts of communication to the public, including making available to the public, of copyright-protected works. Therefore, the DSM Directive has introduced a European regime of ISPs liability that stands in contrast with the existing laws in countries outside the EU. This lack of harmonization will have a negative impact in the ISPs and will eventually lead to a slowdown of internet at a global scale. In order to limit these consequences, this Article proposes the adoption of an International Treaty in the WIPO that sets forth minimum standards on the role of the ISPs, the liability of the ISPs and safe harbors. The proposed Treaty gives freedom to States to require or not filtering obligations. Any filtering requirements should be specific, limited, subject to human review, and should not impose substantial costs on ISPs.

Celebrities’ agony: Locating the publicity rights in the existing IPR framework
Prakash Sharma (Vivekananda Institute of Professional Studies)
Devesh Tripathi (Independent)
Working Paper

With the advent of various forms of mass media and over activism on their part, and also the ever-increasing trend of advertisements, celebrities are very often exploited by the invasion of their privacy and misappropriation of their names. The celebrities possess privacy and personality rights along with a unique right of publicity. The right to publicity sprouted from the right to privacy in the USA. The UK also recognized this right of celebrities through judicial pronouncements. Many civil law nations like Germany and France have acknowledged this right through statutory enactments. Disappointingly, India is lagging far behind in recognition of this right of celebrities, despite having a plethora of celebrities, whose names and likeness are been misappropriated every now and then. Though the trademark and copyright laws can be relied upon to protect celebrity rights to some extent, these laws have their own shortcomings in protecting publicity rights completely. This article attempts to point out all the variety of rights celebrities possess, and the legal means to protect them. The trademark, copyright, and tort of passing off along with the lacunae in them have been engrossed in the relevant context. The paper finally highlights the judicial trend of considering publicity rights in India, along with some suggestions on its way ahead.

Dancing on the grave of copyright?
Anupam Chander (University of California, Davis – School of Law; Georgetown University Law Center)
Madhavi Sunder (Georgetown University Law Center)
Duke Law & Technology Review, Vol. 18, Special Symposium Issue, 2019

The quarter century since Barlow’s writing allows us to assess his prophecy. The economy moved in the very direction that Barlow anticipated—from an economy focused on the ownership of things to an economy
Based on services and experiences. In high-income countries, services now account for three-quarters of the gross domestic product.

But intellectual property proved more resilient and adaptable than Barlow predicted. Intellectual property law both offered exceptions where necessary, while simultaneously expanding to cover new forms of creativity and activities. In this short essay, we argue that, for good or ill, intellectual property has reconfigured itself for an economy driven by information and experience.

But the evolution is hardly complete. New forms of expression keep testing the limits of intellectual property. Consider the blockbuster game Fortnite. Epic Games offers Fortnite game play for free—but users pay for virtual clothing or various “emotes”—dances that allow users to express themselves online during in-game play. Indeed, Fortnite players paid some $2.4 billion in 2018 for the right to engage in such expressions—literally, to “emote.” Internet entrepreneurs have figured out a way to commodify dancing itself. Barlow believed that the internet would liberate us from the commodifying forces of intellectual property—but rather, the internet brought commodification into previously intimate, sacred spaces. This essay considers IP in expressions of joy and shared meaning online in the form of emotes, GIFS, and memes: the stuff of which dreams are made. These aesthetic experiences bring playfulness and humanity to the internet. Are they the proper subject of intellectual property? Are such forms of cultural innovation and appropriation better addressed by ethics or law?

Other IP Topics

**Bridging race + IP: The challenges and potential of utilizing transdisciplinary methods to undo the unbearable whiteness of intellectual property**

Deidre A. Keller (Ohio Northern University – Pettit College of Law)
Anjali Vats (Boston College)
*Intellectual Property Research, Oxford University Press, forthcoming 2020, edited by Irene Calboli and Maria Lila Montagnani*


In this book chapter, we engage the storytelling methodology that Derrick Bell, Richard Delgado and other critical race theorists use to explore the concepts of interdisciplinarity and intersectionality and take up critical race theory, ethnic studies, and race studies as potential lenses for inquiry in this space. In so doing, we suggest that the law & economics frame which predominates in doctrinal intellectual property scholarship is insufficient to the task of rendering transparent the racial investments in intellectual property law. Our aim is to suggest ways scholars interested in the field might go about framing research questions, structuring research plans, and engaging existing work in the field.

**Owning nothingness: Between the legal and the social norms of the art world**

Guy A. Rub (Ohio State University (OSU) – Michael E. Moritz College of Law)
*Brigham Young University Law Review, Forthcoming*


Almost $8 million — that is what the Crystal Bridges Museum paid for one work of contemporary art in November 2015. What did that museum get for that hefty sum? From a legal perspective, absolutely nothing. The work it purchased was just an idea, and ideas of this kind escape legal protection.

The reason that large, sophisticated, experienced, and legally-represented institutes are willing to pay millions of dollars for something that the law does not recognize has to do with the social norms of the art world. This Article is one of the first in legal scholarship to examine at depth those norms in this multibillion-dollar industry. It does so by, inter alia, reporting on interviews the author conducted with industry insiders.
concerning their practices. The Article suggests that those norms create property-like rights in all artworks, whether or not they are legally protected, as well as an ongoing right of artists to partly control the use of their works. Those social norms fill a gap between the ways in which the contemporary art world understands creativity and ways in which our legal system actually incentivizes creative endeavors.

The Article analyzes the normative implications of these social norms and the gap they fill. First, it explains how those norms incentivize certain forms of creativity in a way that is more effective and efficient than property rights. Second, going beyond the art world, the Article shows how the social norms expose certain hidden assumptions in copyright authorship and their shortcomings. It suggests how the law can be improved to account for the richer description of creativity this Article provides. Third, the Article contributes to the ongoing debate concerning private-property ownership. The art world provides sellers with significant post-sale control over their works in a way that the law commonly finds undesirable. That tension might justify rethinking of the current legal rules that disincentivize post-sale control.

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