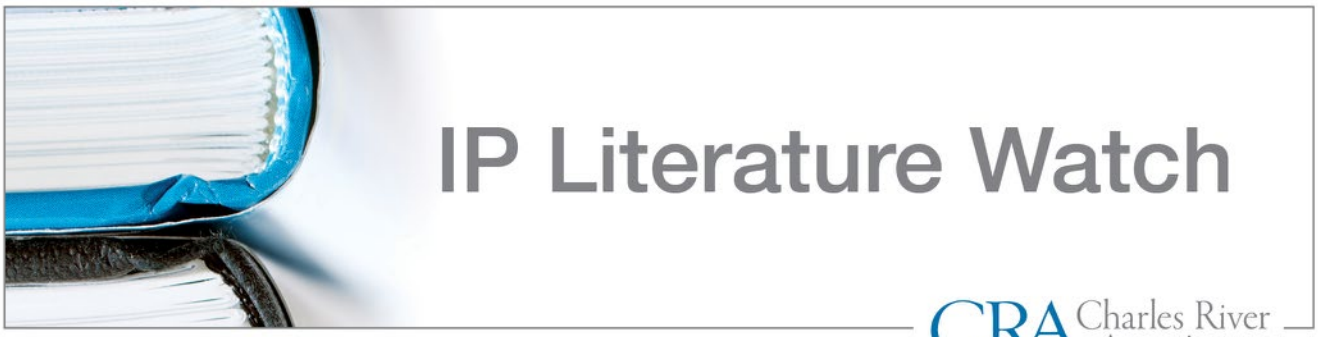

July 2022

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

Intellectual Property and Transactional Choice: Rethinking the IP/Antitrust Dichotomy

Jonathan Barnett (USC Gould School of Law)
CPI Antitrust Chronicle, July 2022
USC CLASS Research Paper No. CLASS22-19
USC Law Legal Studies Paper No. 22-19
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4166054

It is common to characterize patents as monopolies. This assumption, which underlies the standard dichotomy between intellectual property and antitrust law, is challenged by evidence that large companies in technology markets (outside biopharmaceuticals) tend to advocate for weaker patent protection or, in some cases, no patent protection at all. This revealed preference for weaker patent protection reflects the fact that large integrated firms can often capture returns on innovation through economies of scale and scope and other non-patent-dependent capacities that few other firms can match. Relatedly, a weak-patent environment can confer a competitive advantage on integrated firms against smaller and more innovative firms that rely on patents to capture value on innovation through licensing and other contract-based monetization strategies.

IP & Licensing

Endogenous Patent Pool Formation

Chen Qu (University of Nottingham, Ningbo - School of Economics)
Hao Liu (Shandong University)
Xuewen Qian
Jingyi Shen
Working Paper
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4171437

We investigate the endogenous pool formation of three patents and the associated welfare effect in a framework à la Lerner and Tirole (2004), by using the notion of equilibrium binding agreements (Ray and Vohra 1997). We show that, when three-patent combination is synergistic, the complete pool is stable if the total value of all patents is sufficiently high or the equilibrium profits of fragmented patents are sufficiently symmetric. Moreover, the stable complete pool is always welfare-maximizing, while fragmented patents are possible to be both stable and welfare-maximizing.

Position Statement on the European Commission's Call for Evidence for an Impact Assessment on Standard-Essential Patents

Igor Nikolic (European University Institute)
Niccolò Galli (European University Institute)
Robert Schuman Centre for Advanced Studies Research Paper No. 2022_43
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4155887

On 14th February 2022, the European Commission published a 'Call for evidence for an impact assessment' (Call for Evidence) and Public Consultation related to a new framework for standard essential patents (SEPs). The Florence School of Regulation: Area Communications & Media (FSR C&M) of the European University Institute (EUI) is thankful for the opportunity to provide its feedback. Our team of researchers has significant research, policy and training experience in the areas of telecommunications regulation, standardisation and EU competition policy. In this paper, we focus on four specific points raised by the Call for Evidence: 1) the necessity and proportionality of any SEP licensing policy measure; 2) the measures that increase the transparency of the SEP landscape; 3) the optimal level of licensing in the production chain; 4) the alternative dispute resolution mechanisms for Fair, Reasonable and Non-Discriminatory (FRAND) licenses. Our contribution aims to be a catalyst for the debate about the appropriate SEP licensing framework.

IP & Litigation

Who Appeals (and Wins) Patent Infringement Cases?

Jason Rantanen (University of Iowa - College of Law)
Charles Neff (University of Iowa, College of Law)
Eweosa Owenaze (University of Iowa, College of Law)
Allison Williamson (University of Iowa, College of Law)
Houston Law Review, Forthcoming
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4162979

This article draws on a newly-constructed multilayered relational dataset of patent infringement cases to assess hypotheses about different types of patent asserters and what happens in appeals of those cases. We situate this article within the ongoing debates around companies that acquire patents but who do not themselves practice the claimed technologies, particularly patent assertion entities (PAEs). We find that, for some aspects of appeals, such as whether there was an appeal in a patent infringement case, cases brought by PAEs look similar on appeal to cases brought by product companies. But we also observe some substantial differences among litigant types—in particular, whether cases filed by PAEs are appealed more often and who is filing the appeals in those cases. We also observe that, regardless of the patent asserter type, most appeals are filed by patent owners, not accused infringers. Furthermore, even accounting for this difference, accused infringers are more successful on appeal than patent asserters—again, regardless of the type of patent asserter.

Institutional Changes and Industry Dynamics in the IPR Service Sector: A Small Open Economy Perspective

Jussi Heikkilä (University of Jyväskylä - School of Business and Economics; Lappeenranta-Lahti University of Technology)
Mirva Peltoniemi (University of Jyväskylä)
Working Paper
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4163836

Patents and other intellectual property rights (IPR) are at the core of innovation studies. Patent attorneys and other IPR experts play an important role in drafting and filing processes yet are usually overlooked in analyses on filing activity. We conduct an exploratory case study to shed light on how IPR service

firms adapt to changes in the institutions and competitive environment that overturn the fundamentals of their business. We focus on the sector's evolution in Finland from 1990 to 2020, and analyze the impacts of globalization, European integration, and digitalization. Accession to the European Patent Convention, introduction of EU trademarks and Registered Community Designs and the London Agreement are identified as significant institutional changes for the industry. IPR register data and expert interviews show that the business has shifted from serving foreign clients filing in Finland to serving Finnish clients filing internationally, increasing the knowledge requirements of local experts. Concurrently, the filing volume has increased due to globalization partially offsetting the disappearance of some sources of revenue following from digitalization and institutional changes aimed at reducing transaction costs for innovators. This has also triggered the development of consulting services relating to technology strategy. We contribute by analyzing the sector's evolution in a small open economy where start-ups typically aim at the global market from the start. Our study also highlights the need to integrate IPR attorneys into the literatures on appropriability and propensity to file IPRs.

IP & Innovation

Flow of Ideas: Economic Societies and the Rise of Useful Knowledge

Julius Koschnick (London School of Economics & Political Science (LSE))
Erik Hornung (University of Cologne - Center for Macroeconomic Research (CMR); CESifo (Center for Economic Studies and Ifo Institute); Centre for Economic Policy Research (CEPR))
Francesco Cinnirella (University of Bergamo; University of Southern Denmark - Department of Business and Economics; CESifo (Center for Economic Studies and Ifo Institute) - Ifo Institute; Centre for Economic Policy Research (CEPR); CAGE)
CESifo Working Paper No. 9836
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4163325

Economic societies emerged during the late eighteenth-century. We argue that these institutions reduced the costs of accessing useful knowledge by adopting, producing, and diffusing new ideas. Combining location information for the universe of 3,300 members across active economic societies in Germany with those of patent holders and World's Fair exhibitors, we show that regions with more members were more innovative in the late nineteenth-century. This long-lasting effect of societies arguably arose through agglomeration economies and localized knowledge spillovers. To support this claim, we provide evidence suggesting an immediate increase in manufacturing, an earlier establishment of vocational schools, and a higher density of highly skilled mechanical workers by mid-nineteenth century in regions with more members. We also show that regions with members from the same society had higher similarity in patenting, suggesting that social networks facilitated spatial knowledge diffusion and, to some extent, shaped the geography of innovation.

Unpacking Coasian 'Red Boxes': Universities and Commercialization

Andrew P. Morriss (Bush School of Government & Public Service / School of Law; PERC - Property and Environment Research Center)
Roger E. Meiners (University of Texas at Arlington)
Working Paper
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4151128

In The Nature of the Firm, Ronald Coase explains how firms represent a suspension of the market mechanism. The allocation of activities depends on the relative costs of organizing activities within the firm versus direct reliance on the market. Despite Coase's insight, economists often treat firms as black boxes with respect to innovation. Firms take in resources and produce innovations but why firms are successful at innovation is unspecified. As a result, the factors that enable wealth creation within the black boxes of firms, a key factor in economic progress, are little understood. Firms are not the only source of innovation, however. Economically valuable research also emerges from non-profit

universities. They represent an alternative (which we term the “red box”) to research that occurs within firms’ black boxes, an alternative with specific advantages and disadvantages in producing innovations.

In this Article, we argue that research in non-profit universities is distinct from research in a for-profit firm. As a result, the process of moving inventions from the university to the market usually occurs through licensing innovations to firms that have a comparative advantage in assessing possible market value of inventions and can risk capital to exploit innovations. Because successful commercialization of the product of research requires entrepreneurship, we use the insights into entrepreneurship of economists Joseph Schumpeter and Israel Kirzner to begin to unpack the red box of university commercialization efforts. This Article examines the practices that have emerged after the Bayh-Dole Act’s grant of intellectual property rights to universities for the results of federally funded research and the many constraints imposed by university structure. It also considers how the differences in the incentive structure with black and red boxes create a role of university research.

The Interplay between Product Innovation, Publishing, Patenting and Developing Standards

Knut Blind (Technische Universität Berlin (TU Berlin))
Bastian Krieger (ZEW - Leibniz Centre for European Research; University of Luxembourg)
Maikel Pellens (Ghent University; MSI, Faculty of Business and Economics, KULeuven; Centre for European Economic Research)
ZEW - Centre for European Economic Research Discussion Paper No. 22-018, 2022
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4151472

Firms use a variety of practices to disclose the knowledge generated by their R&D activities, including, but not limited to, publishing findings in scientific journals, patenting new technologies, and contributing to developing standards. While the individual effects of engaging in the listed practices on firm innovation are well-understood, the existing literature has not considered their interrelation. Therefore, our study examines if the three practices are complements, substitutes, or unrelated in terms of firms’ performance with product innovations new to the market. Our analysis builds on a sample of innovation-active firms from the German Community Innovation Survey, which includes information on the development of standards, enhanced with information on firms’ engagement in patenting and publishing. We find that 26% of innovation-active firms engage in at least one of the three practices, and 22% of engaging firms combine them. Using super-modularity tests, we show that publishing and patenting as well as patenting and developing standards are substitutes. Publishing and developing standards are not significantly linked. Based on our findings, we derive implications for innovation management and policy.

Human Capital and Innovation: The Persistent Effects of Civil Examination System on Innovation and Firm Dynamics in China

Xiangyu Shi (Yale University, Department of Economics)
Working Paper
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4134833

In this paper, I examine the effects of China’s civil examination system (keju) on modern-day innovation and firm dynamics. Using the variation in the density of jinshi (the highest exam qualification) and using the distance to the printing ingredients (pine and bamboo) as the instrumental variable, I find that keju significantly facilitates innovation and firm entry, and improves firm performance. The most important channel is that keju raises the modern-day human capital, which is an important factor for innovation and firms’ success. Moreover, suggestive evidence supports that keju does not reduce people’s creativity and pro-science attitudes. A quantitative model suggests that keju has significantly positive welfare effects.

IP Law & Policy

Conversations at the Intellectual Property and Artificial Intelligence Interface: Understanding the Needs of Singapore's Innovation Community

Mark Findlay (Singapore Management University - School of Law; Singapore Management University - Centre for AI & Data Governance)
Ariffin Kawaja (StretchSkin Technologies; Singapore Management University - Centre for AI & Data Governance)
Li Min Ong (Singapore Management University - Centre for AI & Data Governance)
Sharanya Shanmugam (Singapore Management University - Centre for AI & Data Governance)
SMU Centre for AI & Data Governance Research Paper No. 05/2022
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4168288

Global interest in regulating artificial intelligence (AI) is gaining momentum, and some of the risks of deploying AI and using big data are more apparent. At the same time, questions are being asked concerning whether and how legal regulatory regimes are stimulating or retarding AI innovation.

Increasingly, use cases wherein AI-related innovation and associated theoretical developments challenge the traditional paradigms of the existing intellectual property (IP) regimes require evaluating how IP can better support and stimulate AI innovation and the appropriateness or limits of IP regimes in this regard.

This Research Project conducted by the Centre for AI and Data Governance (CAIDG) based at Singapore Management University (SMU) and associated review will guide the Intellectual Property Office of Singapore (IPOS) and Singapore's Infocomm Media Development Authority (IMDA) in understanding the perceptions of key stakeholders concerning regulatory stimulation at the IP/AI interface. This report aims to present the findings from a series of focus group discussions with four groups of stakeholders representative of the AI ecosystem, namely (1) AI practitioners; (2) In-house counsel of companies utilizing AI; (3) Legal practitioners from law firms dealing with intellectual property and AI technologies; and (4) Policymakers from ministries and statutory boards involved in regulations or the enforcement of IP.

With this knowledge, policymakers will be better able to harmonize positive regulatory potentials, those of IP in particular, for the commercialization and integrity of AI-related innovations to be more sustainable while balancing the needs of the public and innovators via a healthy, open and competitive market for ideas.

Stochastic-Share Contests

Philip Brookins (University of South Carolina)
Andrew Smyth (Marquette University - Department of Economics)
Working Paper
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4161952

This paper proposes the Stochastic-Share Contest, a novel contest format that combines the Winner-Take-All Contest and the Proportional-Prize Contest, with the former nesting the latter two as special cases. Motivated by the experimental contest literature, we include risk aversion and a "joy of winning" in our model and show that Stochastic-Share Contests induce optimal investment when both are present. Intuitively, the Stochastic-Share format achieves this result by harnessing both the excitement of the Winner-Take-All format and the security of the Proportional-Prize setting. Among the many applications of Stochastic-Share Contests, we illustrate their utility for contest experiments, "winner-take-all markets," patent policy, design competitions, and employee reward programs.

FDA Reexamination: Increased Communication Between the FDA and USPTO to Improve Patent Quality

S. Sean Tu (West Virginia University College of Law)
WVU College of Law Research Paper No. 2022-014
Houston Law Review, Vol. 60, 2022 60 Hous. L. Rev. ___ (2022).
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4149718

Communication between the U.S. Patent and Trademark Office (PTO) and the Food and Drug Administration (FDA) is sorely lacking. This lack of communication has created issues where firms will make significantly different statements to the FDA that directly conflict with statements made to the PTO. This problem has not gone unnoticed by President Biden who has signed an executive order asking the FDA and PTO to enhance collaborative efforts. Similarly, Senators Leahy and Tillis have noted this conflict and asked the PTO to take action.

The current solution to this problem is to invalidate the patent by using the inequitable conduct doctrine. However, this doctrine does not work well when it comes to FDA information. Specifically, FDA information is usually confidential and not easily available to the public, thus is hidden to interested parties. Additionally, FDA information is usually generated long after the patent has issued. Finally, the PTO is not staffed with examiners who know how to gather, interpret and analyze FDA information with an eye towards patentability.

Increased communication between the FDA and PTO could result in stronger patents, even absent active deception by the patent applicant. There is usually a significant lag period between patent issuance and FDA approval. More information is learned during this lag period through clinical trials and additional experiments. Communication between the FDA and PTO could help bring this information to the PTO's attention to help tailor claim scope remove those embodiments that were later shown to be non-functional.

Creation of a new FDA reexamination would address some of the issues associated with lack of FDA and PTO communication. FDA reexamination could mirror aspects of both the ex parte reexamination procedure as well as supplemental examination. Specifically, FDA reexamination would automatically occur after approval of a related FDA drug application. Information from the FDA would automatically be sent to the PTO in regard to any related patents covered by the FDA drug approval. At the PTO, the FDA information will be reviewed by a team of three senior examiners to determine if a substantial new question of patentability exists. At least one of these examiners will have the ability to analyze and interpret the FDA clinical data with an eye towards patentability. If a substantial new question of patentability is found, then the typical Director requested reexamination procedure would ensue.

Copyright Law

Copyright Protection and Creativity Promotion: Evidence from Short Video Industry

Jinglei Huang (Tsinghua University - Institute of Economics)
Fei Hao (Institute of Economics, School of Social Sciences, Tsinghua University)
Ke Rong (Institute of Economics, School of Social Sciences, Tsinghua University)
Danxia Xie (Tsinghua University - Institute of Economics)
Working Paper
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4155860

The previous research has not reached a consensus on whether the protection of intellectual property rights (IPR) stimulates innovation, especially in the digital era. And due to the lack of exogenous variation of copyright statute, solid evidence on the causal effect of copyright protection is still scarce. In this paper, we investigate the effect of a special campaign about IPR protection in China on short video

creation. With a stratified random sample of 16,011 short videos created during 2019-2020 on one of the leading short video platforms, we find support for the innovation promotion effect, the propagation impediment effect and the quality stimulation effect of the strengthened IPR policy. And we also find that the innovation promotion effect is heterogeneous for short videos with different themes and is partially attributed to the stimulation of creators' incentive for devoting effort to original short video production. We confirm our main results by executing several robustness tests. This paper contributes to the research on intellectual property rights and digital innovation, and provides practical guidance for governments, platforms and creators.

Generic Trade Marks: Could Booking.com and the Goods/Services Dichotomy Create a New Generic Headache?

Paul Nolan (Australian Bar Association; New South Wales Bar)
Australian Intellectual Property Journal (2022) Vol 32(3)
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4139147

Generic trademarks have traditionally been those that have become generic over time. Put simply, they lost their necessary distinctiveness due to societal overuse. Most are familiar with the well-known cases involving common marks that have fallen into the everyday lexicon. There is a further category of trademark that is registered (and remains registered) despite appearing to be generic ab initio. This was highlighted in the recent decision of United States Patent and Trademark Office et al v Booking.com B.V. This latter category is more likely to impact on services as opposed to goods due to the proliferation of online services in an exponentially growing digital era. The dichotomy between goods and service will become blurred as the digital era continues to dominate. This article argues that today's dynamic internet-reliant commercial environment means that genericness has far less time to develop than it formerly did. Further, evidence will be required to show that a generic.com mark has acquired enough distinctiveness to ward off a genericism challenge. Finally, whether service marks survive genericide threats in a digital era remains to be seen and will be decided, as always, on a case-by-case basis.

IP & Trade

Trading Intellectual Property Rights in Europe: From IP Nationalism to International IP

Aurora Plomer (University of Bristol - School of Law; London School of Economics - Law School)
LSE Legal Studies Working Paper No. 12/2022
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4138442

This article is part of a wider project funded by the Leverhulme Trust Major Research Fellowship and a forthcoming CUP monograph on Intellectual Property and the Human Rights of Companies in Europe. The project and book seek to retrace the genesis and rationale for the extension of human rights to companies in the First Protocol of the ECHR and to critically assess the normative implications. This article's original contribution to the existing scholarship is twofold. It shows that European States viewed patents as legal shields against foreign industrial piracy spurred by international trade fairs aimed at showcasing national industrial power and the capture of new markets. Secondly, it documents the legal malleability and indeterminacy of patent rights and the role of courts in providing further definition of these rights largely to the benefit of intellectual property (IP) holders in the nineteenth century. The comparative analysis of French and British policy on patents and prizes in the nineteenth century draws on little studied archival sources on the Great Exhibition of Trades and Manufactures in 1851. The analysis of the case law of English courts on the run up to the adoption of the Paris Convention 1883 illustrates the fuzzy legal boundaries of the objects of 'intellectual' property. The ensuing discussion shows how the turn to international IP law to protect national economic interests in reality created an open-ended legal framework which facilitated cross-border protection of private interests and capital.

Legal and Institutional Dimension of the AfCFTA in the Context of Agricultural Development and Trade

Katrin Kuhlmann (Georgetown University Law Center)
Forthcoming as part of July 2022 Initiative for Free Trade Report "Cultivating Trade: The AfCFTA and Agriculture"
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4167388

There are several lenses through which the legal aspects of the Agreement Establishing the African Continental Free Trade Area (AfCFTA) could be assessed in order to evaluate the impact on agricultural development, trade, and food security within the continent and in the broader global context as well. While the legal commitments in goods and services under the AfCFTA are one important lens, this section will focus on another aspect, namely the legal provisions in the AfCFTA that will have significant implications for governance and the rules of the market itself. These include regulation of non-tariff measures (NTMs), some of which may be non-tariff barriers (NTBs) that have a discriminatory effect on trade, and other market regulatory aspects related to trade in both goods and services. This dimension may also include rules in new areas that are yet to be negotiated under the AfCFTA, such as investment, competition, intellectual property rights (IPRs), digital trade, and gender. Across all of these substantive legal and regulatory areas, this section will describe three inter-connected dimensions: (1) the extent to which the AfCFTA presents a unique and innovative legal model, even if aspects of this model cannot yet be fully assessed; (2) the degree to which the AfCFTA aligns with and possibly deviates from other international rules, including the rules of the World Trade Organization (WTO) and African Regional Economic Communities (RECs), bearing in mind that the RECs form part of the structure of the AfCFTA; and (3) the extent to which the AfCFTA could perhaps establish new legal standards that more fully reflect the importance of agricultural development and trade on the continent.

Other Topics

Guardians of Intellectual Property in the 21st Century: The Global Supply Chain Industry

Steven Carnovale (Portland State University)
Jessica Carnovale (Rochester Institute of Technology (RIT))
Doug Strub (National Bureau of Asian Research)
Alison Szalwinski (National Bureau of Asian Research)
Jonathon Marek (National Bureau of Asian Research)
Rutgers Business Review, Vol. 7, No. 1, 2022, pp. 1-21
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4168325

The length and complexity, the number of geographically distributed firms, as well as the number of products that modern supply chains are tasked with delivering to consumers have grown exponentially over the past several decades. Regional supply chains have transformed into global ones with intellectual property and related proprietary information being dispersed across firms' extended enterprises. Couple these trends with the increase in digitization and the larger presence of internet-enabled technologies, and the number of attack vectors for malevolent actors has outpaced potential protections and safeguards. Succinctly stated, supply chains are vulnerable to intellectual property theft. But questions remain, such as which parts of supply chains are the most vulnerable? What technologies exist to help protect intellectual property? What is missing, and what can be done? Hence the purpose of this paper. Upon investigation, our team has found: (1) The implementation of training for supply chain personnel to the scale and scope of the increasingly pervasive vulnerabilities of IP in supply chains; (2) The implementation of protocols for traceability and tracking of raw materials at the beginning of the supply chain, and across entities of the supply chain, ideally through an established set of standards for IP protections in the onboarding process; and (3) establishing a 'detection/mitigation/recovery' risk management footing such that firms have a balanced approach to handling IP theft.

Contact

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*The editor would like to acknowledge the contributions of **Arun Maganti**.*

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