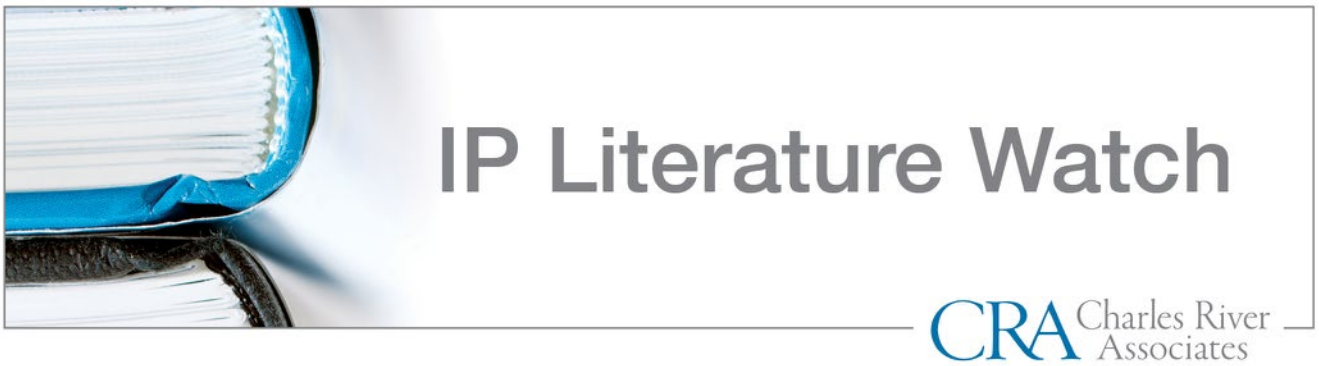

October 2022

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

Patent Thickets and Mergers and Acquisitions

Logan P. Emery (Rotterdam School of Management, Erasmus University)
Michael Woeppel (Indiana University - Kelley School of Business - Department of Finance)
Working Paper
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4249384

We examine the relation between patent thickets and acquisitions. Patent thickets are dense webs of overlapping intellectual property rights that create costs by complicating licensing negotiations and increasing the risk of holdup and litigation. We find that firms are less likely to be acquired when they are in a denser thicket comprised of many patent owners, which exposes firms to these costs. In contrast, firms are more likely to be acquired when the thicket created by their own patents is denser, which insulates firms from these costs. We also find that when the acquirer and target occupy the same thicket, the target is more likely to be acquired when they can impose these costs on the acquirer but less likely to be acquired when they can have these costs imposed on them by the acquirer. Importantly, our results are not explained by patent count, patent citations, or technological overlap. Overall, we show that patent thickets play an important role when acquiring innovation.

Collusive Bidding, Competition Law, and Welfare

Shubhashis Gangopadhyay (India Development Foundation; University of Gothenburg; University of Groningen, Faculty of Economics and Business, Students; Indian School of Public Policy)
Stefan Sjögren (University of Gothenburg - Centre for Finance - School of Business, Economics and Law)
Aineas Mallios (University of Gothenburg)
Working Paper
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4251868

We explain why competing firms form collective entities to buy patents from other entities, particularly from non-producing entities (NPEs), and follow a catch and release patent strategy. We show why competitors bidding as a single unit is better than competitors bidding against each other and claim that collusive bidding on patents held by NPEs, even when the patents are not essential for a standard (SEPs), may be socially beneficial. This provides a theoretical foundation that explains why competition authorities often allow collusive bidding for patents and why courts employ the “rule of reason” to analyze agreements under competition law.

IP & Licensing

Patent Pool Formation as a Social Dilemma

Takaaki Abe (Tokyo Institute of Technology)
Emiko Fukuda (Tokyo Institute of Technology)
Shigeo Muto (Tokyo University of Science - School of Management)
Working Paper
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4228457

This paper extends the Cournot-Shapiro model to provide a tractable model of voluntary patent pool formation among standard essential patent holders. We assume that patent holders have complementary patents for a standard. We first show that the existence of a path of voluntary patent pool formation heavily depends on demand for patent licenses and that no such path exists in linear demand examples. Next, we extend our model to consist of two rival standards that are substitutable and compete `a la Bertrand competition. We show that while a large patent pool benefits both patent holders and licensees, it is not provided voluntarily. Our analysis suggests that the presence of a rival standard may facilitate voluntary patent pool formation.

Frand Royalties: Rules v Standards?

Nicolas Petit (European University Institute - Department of Law (LAW))
Amandine Leonard (University of Edinburgh)
Chicago-Kent Journal of Intellectual Property, Forthcoming
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4226927

Royalties for intellectual property (IP) are like taxes. Everyone agrees that some limits are necessary. However, no one agrees on the levels at which the limits should be set. One way to overcome disagreement consists in asking if a legal rule or standard should govern the limits of IP royalties. This paper discusses this issue in the context of Standard Essential Patents (“SEPs”) governed by a commitment to license on Fair Reasonable and Non Discriminatory (“FRAND”) terms. The paper find that FRAND rules generally surpass standards, but only under specific conditions.

The History of the ETSI IPR Policy: Using the Historical Record to Inform Application of the ETSI FRAND Obligation

Robert Pocknell (N&M Consultancy)
Dave Djavaherian
Working Paper
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4231645

The European Telecommunications Standards Institute (ETSI) is responsible for developing and promulgating modern cellular standards such as LTE and 5G. These mainstream cellular standards are expanding throughout the economy, particularly with the adoption and growth of new cellular standards for the “Internet of Things” (IOT), whereby diverse new industries such as energy, medical, automotive, appliances, warehousing and many others are all currently adopting and incorporating cellular functionality to connect their products wirelessly to the global communications system.

Many of the technologies used in those standards are patented by ETSI members, who collectively agree on which technologies to include in a standard (e.g., their own) and which to exclude (e.g., those patented by others). More than thirty years ago, government competition agencies told ETSI that these patent issues – if not constrained in some way – would cause competition law problems and potentially antitrust enforcement against ETSI or its members. ETSI had a responsibility to prevent its members from using the standardization process, and their patents included in the standards they develop, to entrench their own business interests while excluding competitors.

ETSI drafted and ultimately adopted a policy whereby members would commit to license their patents – known as standard-essential patents (SEPs) – on fair, reasonable and non-discriminatory (FRAND) terms. Companies, lawyers, government representatives, competition law experts, lobbyists, ambassadors, and scholars have been arguing over what FRAND means and requires ever since. Billions of dollars in annual patent licensing royalties are at stake.

Rather than addressing ETSI's FRAND policy from the more common perspective – arguing about what it should mean or what policy approaches are best – in this paper, the authors take a fresh approach focusing on a historical review and analysis of what the drafters of the ETSI FRAND policy intended and believed that it did mean at the time they wrote and approved it. While many of ETSI's records are maintained as confidential to ETSI members, this paper results from an extensive review of publicly available materials dating from the period when the ETSI FRAND policy was developed and enacted, and reports on the contemporaneous accounts of those involved. The authors then apply these historical documents and accounts to assess key issues in today's policy and legal disputes. The results show that many of the issues spawning debates about interpretation of the ETSI policy were expressly addressed by the ETSI drafters at the time that the ETSI IPR Policy was created and approved, and that significant historical evidence is available regarding the expressly intended meaning and application of ETSI FRAND policy.

IP & Litigation

Product Development with Lurking Patentees

Erik Hovenkamp (USC Gould School of Law)
Jorge Lemus (University Of Illinois Urbana Champaign)
John L. Turner (University of Georgia - C. Herman and Mary Virginia Terry College of Business - Department of Economics)
Working Paper
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4225129

We analyze technology investment and adoption by a product developer who faces uncertainty over whether any existing patent covers a new technology. If there is a patent, the (non-producing) patentee may choose to "lurk"—i.e., to strategically delay enforcement—hoping that the developer will adopt the patented technology and unwittingly accumulate infringement liability. Lurking incentives are pervasive and strongest at intermediate levels of patent strength and damages. We identify when there is inefficiency relating to adoption or investment and find that lurking does not usually deter developers from efficient technology adoption. Ignoring the impact of lurking on the developer's strategic choices about technology adoption and investment can misguide economic predictions and policy conclusions.

Executives' Legal Expertise and Corporate Innovation

Yunhao Dai (Huazhong University of Science and Technology)
Xinchu Tong (Huazhong University of Science and Technology)
Xiao Jia (Huazhong University of Science and Technology)
Working Paper
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4236711

We study whether and how executives' legal expertise impacts corporate innovation. Using a sample of listed firms in China, we find that firms that hire executives with legal expertise are associated with more corporate innovation. These firms mention more about potential legal risks, internal and external legal advisors in their annual reports, and have lower chances of being sued in patent litigations. In addition, we show that the innovation-promoting effect of lawyer executives complements the role of in-house legal counsels and the external legal environment. Overall, the results indicate that executives with legal expertise bring more attention to legal risks and help the firm to shape a stable investment environment, which can effectively promote innovation activities.

Injunction Likelihood, Exploration in Branding and Innovation, and Market Value

Fred Bereskin (University of Missouri)
Po-Hsuan Hsu (National Tsing Hua University - Department of Quantitative Finance)
Huijun Wang (Auburn University)
Working Paper
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4253454

Routinely granted injunctions during patent lawsuits have been regarded as a significant obstacle to economic growth and corporate competition. We use the 2006 Supreme Court ruling in eBay v. MercExchange that reduced injunction likelihood in cases related to information and communications technology (ICT) patents to examine the effect of the reduced injunction likelihood on firms' market values. We find that affected firms' stock prices react favorably to this reduced injunction likelihood. Firms with reduced injunction likelihood become more profitable and explore more in branding and patenting activities. These effects concentrate in firms with lower cash holdings and greater financial constraints.

Defensive Patenting and Portfolio Synergies: the Impact of Patent Invalidation on the Renewal of Citing Patents

Garry Gabison (Queen Mary University of London, School of Law)
Working Paper
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4249686

This paper investigates how court invalidations affect the decision to renew the citing patents. An invalidation creates a shock for the patent holder but also its competitors who cite that patent: invalidation wipes out portfolio synergies and the necessity to have defensive patents. This paper shows that Federal Circuit patent litigations affect the renewal likelihood of citing patents. Invalidations have a negative effect on the renewal decision of patents that cite the invalidated patent. This observation supports that many patents are renewed for defensive purposes. The portfolio size also affects the renewal decision. This observation supports the existence of portfolio synergies. But these two effects depend on the renewal year. This observation supports that patent use and value varies over their 20-year cycle.

IP & Innovation

Do Social Policies Foster Innovation? Evidence from India's CSR Regulation

Swarnodeep HomRoy (University of Groningen)
Shubhashis Gangopadhyay (India Development Foundation; University of Gothenburg; University of Groningen, Faculty of Economics and Business, Students; Indian School of Public Policy)
Research Policy, December 2022, Forthcoming
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4234158

We examine the effect of social policies on corporate innovation using India's mandatory Corporate Social Responsibility (CSR) regulation. This regulation mandates firms with pre-tax profits above a certain threshold to spend 2% of the profits on CSR. We demonstrate a significant bunching of companies just below the profit threshold post-regulation compared to the pre-regulation period. Firms close to the profit threshold manipulate their earnings to avoid compliance by increasing their R&D expenses. We show that, on average, firms that increase R&D expenses to avoid the regulation apply for one more patent and announce two new products. The increase in R&D expenses and patenting is concentrated in firms with a prior history of innovation. Our results suggest that social policies can generate indirect incentives for innovation.

Pricing Technological Innovators: Patent Intensity and Life-Cycle Dynamics

Jan Bena (University of British Columbia - Sauder School of Business)
Adlai J. Fisher (University of British Columbia (UBC) - Sauder School of Business)
Jiri Knesl (Said Business School, University of Oxford)
Julian Vahl (University of British Columbia (UBC) - Sauder School of Business)
Working Paper
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4218260

Technological innovators are priced differently than other firms, earning high stock returns controlling for standard factors, with less punishment for high capital investment and weak profitability. We create the persistent new firm variable patent intensity (PI), patents received divided by market capitalization, available from 1926. On average, high PI firms account for ten percent of CRSP market value but generate over half of five-year-forward public-market patenting. Aged portfolios and standard factors show high alpha and low profitability lasting more than a decade past formation. Adding an expected growth factor, alphas become insignificant at most horizons, and loadings show strong life-cycle dynamics: high but declining growth, aggressive and increasing investment, and weak but improving profitability.

Patent Disclosure and Enterprise Innovation Quality

Lei Huang (Xihua University)
Yusen Wu (Xihua University)
Keyu Luo (School of Economics and Management, Southwest Jiaotong University)
Working Paper
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4239685

In recent years, there has been considerable interest in both academic and practical circles in relation to patent disclosure and enterprise innovation quality. In a strategic context of “innovation-driven development”, the availability of intellectual property information and enterprise innovation capabilities play an increasingly essential role in the long-term development of mainland Chinese firms. The study of related issues can help improve the patent disclosure environment in Chinese mainland market and have a positive effect on the quality of enterprise innovation. As viewed from the perspective of the mainland Chinese market, this paper examines the relationship between patent disclosure and enterprise innovation quality. Data from Chinese enterprises listed on the A-share main boards shows patent disclosure by competitors lowers innovation quality. In contrast, the patent information spillover generated by firms has a positive effect on the quality of self-innovation. Additionally, we investigate the impact of patent spill-out (spill-in) on enterprise innovation quality from the perspective of industry technology investment and industry concentration. According to the empirical data, the effects of enterprise patent disclosure spillover on innovation quality are stronger in industries with high technology investment and manufacturing, while the effects are less pronounced in industries with high industry concentration.

IP Law & Policy

Data Property

James Grimmelmann (Cornell Law School; Cornell Tech)
Christina Mulligan (Brooklyn Law School)
American University Law Review, Forthcoming
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4251825

In this, the Information Age, people and businesses depend on data. From your family photos to Google’s search index, data has become one of society’s most important resources. But there is a gaping hole in the law’s treatment of data. If someone destroys your car, that is the tort of conversion and the law gives a remedy. But if someone deletes your data, it is far from clear that they have done you a legally actionable wrong. If you are lucky, and the data was stored on your own computer, you

may be able to sue them for trespass to a tangible chattel. But property law does not recognize the intangible data itself as a thing that can be impaired or converted, even though it is the data that you care about, and not the medium on which it is stored. It's time to fix that.

This Article proposes, explains, and defends a system of property rights in data. On our theory, a person has possession of data when they control at least one copy of the data. A person who interferes with that possession can be liable, just as they can be liable for interference with possession of real property and tangible personal property. This treatment of data as an intangible thing that is instantiated in tangible copies coheres with the law's treatment of information protected by intellectual property law. But importantly, it does not constitute an expansive new intellectual property right of the sort that scholars have warned against. Instead, a regime of data property fits comfortably into existing personal-property law, restoring a balanced and even treatment of the different kinds of things that matter for people's lives and livelihoods.

Jumping from Mother Monkey to Bored Ape: The Value of NFTs from an Artist's and Intellectual Property Perspective

Jun Chen (The Chinese University of Hong Kong)
Danny Friedmann (Peking University School of Transnational Law)
31(1) Asia Pacific Law Review 2023 (online publication September 2022)
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4213536

2021 was a miraculous year for non-fungible tokens (NFTs), which led to confusion among observers of the phenomenon from both the art industry and regulatory authorities. This article provides a dispassionate analysis of the value of NFTs from an artist's and intellectual property (IP) perspective. In the longer term, NFTs could improve the fate of artists to authenticate their works, set their conditions and get a resale compensation per transaction. This could happen, once their underlying works can be minted too, so that an NFT entails more than just a self-referential certificate. The article focuses on the US jurisdiction where the NFT phenomenon originated and only touches upon the EU jurisdiction in regard to the droit de suite right and Chinese jurisdiction in regard to the transmutation of NFTs into the speculation-proof 'digital collectibles'. The introduction provides a primer on the blockchain, NFTs, and the paradox of digital uniqueness and authenticity. Section II addresses the value game of art before and after the emergence of NFTs. Section III investigates the commercial side of NFT art and its new version of Maecenas. Section IV provides an analysis of the rights of the NFT holder versus the rights of the artist from an IP perspective; and focuses on unauthorized use of underlying works and regulation in the US and China. Section V provides the conclusions and contemplates whether NFTs will redefine the future of art and artists: from showcase of bragging rights to essential tool for artists to protect their IP rights.

The Blockchain Ecosystem in the Light of Intellectual Property Law

Eleni Tzoulia (Law School, Department of Economic and Commercial Law, Aristotle University of Thessaloniki; School of Science and Technology, Hellenic Open University; Democritus University of Thrace; University of Heidelberg)
Eleni Tzoulia, The blockchain ecosystem in the light of intellectual property law, 13 (2022) JIPITEC 290 para 1
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4239195

The study at hand delves into the technologies composing blockchain and designates its most significant practical applications to date. The technological ecosystem identified through this investigation is then scrutinized from the perspective of intellectual property law. It examines, in particular, under which conditions and to what extent blockchain itself as a standalone product, its individual components, and its several applications may be subject to a) copyright, b) database and trade secret protection, and c) patent law. The objective of this investigation is to identify the most suitable legal basis for raising claims against unauthorized use of the pertinent subject matter. The analysis also explores adversities posed to intellectual property law by modern technologies and contemplates their circumvention. The benchmark for this examination is the intellectual property law currently in force in the EU.

Copyright Law

Fifty Years of U.S. Copyright: Toward a Law of Authors' Rights?

Jane C. Ginsburg (Columbia University - Law School)
American Intellectual Property Law Association Quarterly Journal, Forthcoming
Columbia Public Law Research Paper, No. 14-708, 2022
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4230363

In honor of the 50th Anniversary of the American Intellectual Property Law Association Quarterly Journal, this Article explores developments in U.S. copyright law within that timeline. Fifty years would take us to 1972, but the signal event in U.S. copyright law during that period is the 1976 Copyright Act, which took effect in 1978. I will examine how that law marks a watershed in U.S. copyright, shifting us toward a law of authors' rights more consonant with the international standards of the Berne Convention on the Protection of Literary and Artistic Property. Authors and authorship underpin the 1976 Act to a greater extent than its predecessors, starting with the statutory setting of creation as the point of attachment of federal copyright protection (rather than publication with proper notice of copyright). This Article will consider the respects in which the 1976 Act and its implementation, through to the recent interpretations of the Act to exclude non-human authorship, center copyright on creators. Part I addresses the relationship between creativity and formalities; Part II reviews copyright ownership; Part III examines the scope of protection of authors' economic and moral rights; and Part IV addresses secondary authorship and the fair use defense. I conclude with some reflections on "authorless works" and why they cannot sustain copyrights under the 1976 Act.

Trade Secret Protection and R&D Investment of Family Firms

Katrin Hussinger (ZEW – Leibniz Centre for European Economic Research)
Wunnam Issah (University of Leicester, School of Business, Department of Marketing, Innovation, Strategy and Operations)
Family Business Review, Forthcoming
ZEW - Centre for European Economic Research Discussion Paper No. 22-039
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4251575

Family firms are known for their reluctance to invest in research and development. We show that strengthened trade secret protection is associated with higher R&D investment by family firms. More specifically, we show that the association between the strength of trade secret protection through the U.S. Uniform Trade Secrets Act and R&D investment is positively moderated by family control. Our results further show that the positive moderation of family control on the association between the strength of trade secret protection and R&D investment varies with the industry context, being stronger in high tech industries and weaker in discrete product industries.

Copyright Reformed: The Narrative of Flexibility and Its Pitfalls in Policy and Legislative Initiatives (2011 – 2021)

Eleonora Rosati (Stockholm University, Faculty of Law)
Asia Pacific Law Review, Forthcoming - available open access at https://www.tandfonline.com/doi/full/10.1080/10192557.2022.2117482
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4195559

This article reviews selected copyright policy and legislation at the international, regional, and national level during the period 2011 – 2021. It identifies a common and consistent narrative that supported reform initiatives in the surveyed jurisdictions: the modernization of copyright requires greater flexibility so that the undertaking of certain acts without authorization is not unduly restricted and a fairer balance of rights and interests may be, as a result, achieved. Through the analysis of reform initiatives in different areas of copyright and across several different jurisdictions, it is shown how the flexibility narrative has on occasion had the effect of unduly altering the preventive nature of copyright's exclusive

rights, inappropriately referring to exceptions and limitations as rights of users, overlooking relevant legal obligations, and introducing undue rigidity within the system of private autonomy. It is ultimately submitted that flexibility should not be conflated with fairness. As such, policy- and law-makers should be wary of superficially framing ongoing and future reform discourse around such a narrative without considering the shortcomings that it has led and might unduly lead to.

Street and Graffiti Art between Augmented Reality and Artificial Intelligence: A Copyright Perspective

Enrico Bonadio (City University London - The City Law School)
Siri-Helen Egeland (University of Agder)
University of St. Thomas Law Journal, Vol. 18, No. 3, 2022
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4243751

The street art and graffiti scenes are under the influence of constantly developing technologies including augmented reality (AR) and artificial intelligence (AI). The interaction between AR / AI and these forms of art can materialise in several ways. The artists themselves can use these technologies to enhance or modify their works, but more often the interaction happens because others find street art and graffiti to be interesting forms of input data or backdrops for their own digital creations.

The article first acknowledges the developments in AR and AI and includes examples of such technologies as applied to street and graffiti art. It then addresses copyright and moral rights' issues arising from this interaction, focusing on (amongst others) (i) whether works derived from street and graffiti pieces by using AR and AI may be protected by copyright; (ii) copyright infringement and defences; and (iii) the freedom of panorama exception. As to the best of our knowledge no case has been decided on these aspects, there is some speculation on how judges may face such issues, and on how AR and AI could impact on the development of these artistic movements.

IP & Trade

'Distance' in Intellectual Property Protection and MNEs' Foreign Subsidiary Innovation Performance

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Georgios K. Batsakis (Brunel University London - Brunel Business School)
Vikrant Shirodkar (University of Sussex - School of Business, Management and Economics)
Journal of Product Innovation Management, Volume 39, Issue 4, July 2022, Pages 534-558
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4199408

Drawing on the institution-based view of intellectual property (IP) rights, we argue that 'distance' in IP protection strength of MNEs' home and host countries reduces the ability of MNEs to innovate at foreign subsidiary locations. We contend that this logic applies in both directions – i.e. (1) downward direction, when MNEs originating from stronger IP protection regimes innovate in weaker IP protection regimes, and (2) upward direction, when MNEs originating from weaker IP protection regimes innovate in stronger IP protection regimes. Furthermore, we suggest that the negative effect of IP protection distance on foreign subsidiary innovation performance will be moderated by internal (strategic) and external (institutional) conditions, such as the subsidiary experience, subsidiary ownership type (full vs. partial), cultural distance and the extent of scientific labor in the host country. We test the above relationships using a very large panel dataset consisting of MNE subsidiary-level data in the manufacturing industry for 15,246 subsidiaries of 11,284 parent firms, representing 47 home countries and 31 host countries and covering a total of 91,347 observations for the period 2005-2013. Our findings show that (1) the adverse effect of IP protection distance on subsidiary innovation performance applies in both directions; (2) the effect is more intense in case of the downward direction; and (3) the moderating effects vary depending on the direction of IP protection distance.

Patent Transactions and the Use of Blockchain Technology

Arina Gorbatyuk (Research Foundation - Flanders (FWO); KU Leuven - Centre for IT & IP Law (CiTiP))
Thomas Gils (KU Leuven - Centre for IT & IP Law (CiTiP))
Working Paper
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4216805

Blockchain is regarded as a game changer in the IT world as it allows to record and exchange information in a decentralized manner on an unprecedented level. Since the introduction of the technology more than a decade ago, there is hardly any industry that is not wondering about its applicability to their fields. Intellectual property (IP) is not an exception. IP scholars, practitioners, and policymakers actively explore the possibility to register, govern, manage, and enforce IP rights via blockchains.

In particular, blockchains may permit to increase the visibility and tradability of IP assets, by developing so-called blockchain-based IP marketplaces. Whereas several IP rights are subject to registration (such as patents) and registering offices maintain IP databases, such registers are often territorial in nature and only serve the disclosure function. Blockchain-based IP marketplaces aim to not only increase the visibility of IP assets and disclose related information but also allow IP owners to trade their intangible assets. Thus, such marketplaces can be instrumental in facilitating IP transactions. Even though the development of such marketplaces hypothetically has multiple advantages, their introduction is not without legal challenges which are extensively analyzed in this paper.

In this paper we focus predominantly on the use of blockchains in facilitating patent transactions. In particular, we (1) explore the core prerequisites of establishing patent transactions; (2) assess whether patent registers disclose sufficient information to third parties to establish patent transactions; and (3) evaluate whether and to what extent blockchains can facilitate patent exchanges in an efficient and lawful manner, by reviewing and critically analyzing currently available blockchain patent marketplaces (such as IPwe).

Other Topics

Relaxing Identifying Assumptions: An Application to First Patents and Employee Mobility

Justin Frake (University of Michigan, Stephen M. Ross School of Business)
Anthony Gibbs (Purdue University - Krannert School of Management)
Brent Goldfarb (University of Maryland - Robert H. Smith School of Business)
Takuya Hiraiwa (University of Maryland - Robert H. Smith School of Business)
Evan Starr (University of Maryland Robert H Smith School of Business)
Shotaro Yamaguchi (University of Maryland - Department of Management & Organization)
Working Paper
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4228655

Every empirical approach to causal inference relies on untestable identifying assumptions. Yet, just 5% of recent empirical studies in top management journals test for sensitivity to the violation of these assumptions. To address this gap, we highlight recent methods that examine how sensitive estimates are to violations of identifying assumptions for three identification strategies: controlling for confounders, difference-in-differences (DD), and instrumental variables. We apply these tools by examining how an inventor's first patent affects future mobility. In each case, we find that first patents are associated with increased mobility, though the results are sensitive to moderate violations of the identifying assumptions. Our DD analyses also reveal that inventors are on a downward-mobility trend in the years before they patent, which we call the "Inventor's Dip," but are more mobile after receiving a patent. These results suggest that a first patent likely increases mobility, while the pre-patenting innovation process reduces it.

On the Elasticity of Substitution between Labor and ICT and IP Capital and Traditional Capital

Vahagn Jerbashian (University of Barcelona - Department of Economics; University of Barcelona - Barcelona Economic Analysis Team (BEAT))
CESifo Working Paper No. 9989
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4246396

I estimate CES aggregate production functions for the US, the UK, Japan, Germany, and Spain using data from the EU KLEMS database. I distinguish between three types of capital: information and communication technologies (ICT), intellectual property (IP) capital, and traditional capital. I assume that the aggregate output is produced using labor and these three types of capital and allow for differences in the elasticities of substitution between labor, an aggregate of ICT and IP capital, and traditional capital. The estimated elasticities of substitution between ICT and IP capital are strictly below one for all sample countries implying gross complementarity. ICT and IP capital together are gross substitutes for labor while traditional capital is a gross complement. The results for the US imply that the fast pace of technological progress in ICT and IP capital accumulation together are responsible for about 80 percent of the fall in labor income share.

A Qualitative Method for Investigating Design

Mark P. McKenna (UCLA School of Law)
Jessica M. Silbey (Boston University - School of Law)
Handbook on Empirical Studies in Intellectual Property Law
Boston Univ. School of Law Research Paper No. 22-34
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4254215

This chapter describes our qualitative study of designers and design practice. It situates the study in the broader field of empirical studies of intellectual property, and it describes in detail the methodology and benefits of a qualitative interview study of designers and design practice to shed light on some of the persistent puzzles in design law. The chapter focuses on four lines of inquiry: defining “design” and “design practice” from within the profession; exploring the various inputs to design practice and the process of “problem solving” designers pursue; understanding what “integrated” form and function mean to designers; and explaining the features of “successful” or “excellent” design as a professional standard.

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