



IP Literature Watch

CRA Charles River
Associates

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

IP & Antitrust

SEPs Infringement and Competition Law Defense in German Case Law

Giuseppe Colangelo (University of Basilicata, Department of Mathematics, Computer Science and Economics; Stanford Law School; LUISS Guido Carli, Department of Business and Management)
Andrea Aguggia

Deep-In Research Paper (2023)

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4444068

Within the debate on the role of competition law in standard essential patents (SEPs) litigation, German case law has gained center stage because of the number of decisions handed down and its traditional patent owner-friendly approach. As the framework handed down by the European Court of Justice (CJEU) in Huawei is usually interpreted as being opposed to the approach adopted by the German Federal Court in the Orange Book Standard decision, it is worth investigating how German courts have tackled the competition law defense in the post-Huawei scenario. The paper maintains that the Federal Court's rulings in Einwand have aligned German case law with the Huawei framework and that the attention devoted in German case law to the implementer's obligations is consistent with the principles set out by the CJEU. Nonetheless, recent lower courts' decisions confirm that the case-by-case detection of the licensee's willingness is still a challenging issue.

IP & Licensing

FRAND Dispute Resolution under the Data Act and the SEP Regulation

Tilman Dr. Niedermaier (CMS Hasche Sigle)

Peter Georg Picht (University of Zurich – Institute of Law)

Working Paper

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4447930

Regulators and legislators across many jurisdictions encourage the use of alternative dispute settlement (ADR) for FRAND disputes. The EU Commission is doing so vehemently by its draft SEP Regulation, front and center of which are ADR mechanisms. So far, and undeservedly, the data FRAND ADR mechanism under the draft Data Act has remained largely undiscussed. If implemented, both the Data Act and the SEP Regulation dispute resolution mechanisms could give a push to FRAND ADR, even beyond the scope of these legislative acts. The paper provides an overview of the proposed ADR frameworks under the Data Act and the SEP Regulation. It then goes on to comparatively assess

important aspects of these two sets of rules and submits suggestions for how to amend the current drafts of the Data Act and the SEP Regulation.

Strategic Modular Innovation

Saleh Zakerinia (Cornell University – SC Johnson Graduate School of Business)

Nathan Yang (Cornell University)

Vithala R. Rao (Cornell University – Samuel Curtis Johnson Graduate School of Management)

Working Paper

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4432815

We begin paper with a descriptive analysis of the growing role of modular innovation across several industries that uncovers regularities of US patent dynamics. Based on this, we develop a set of game-theoretic models for studying the impact of strategic modular innovation investments in technology on subsequent product market competition. We derive conditions for which technologies are shared with competitors via licensing, but only partially, given the modular nature of innovation. Finally, our analysis suggests that modularization might introduce new avenues for economic benefits via increased innovation activity and welfare.

IP & Litigation

The Future of Criminal Enforcement of Copyright: The Promise of Civil Enforcement

Miriam Marcowitz-Bitton (Bar-Ilan University – Faculty of Law)

Orit Fischman Afori (College of Management Academic Studies Law School)

Hillel Billauer (Bar Ilan University, Students)

30 GEORGE MASON LAW REVIEW, 463 (2023)

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4422149

This Article will consider the intersection of copyright and criminal law, exploring the complexity of using criminal penalties to enforce intellectual-property laws. It will review how criminal law has been applied in the field of copyright and demonstrate that criminal enforcement of copyright law suffers from inherent deficiencies. Meanwhile, civil-enforcement mechanisms targeting copyright infringement have developed significantly in the last two decades, providing new frameworks aimed at addressing the emerging challenges of the digital environment. Enhanced civil mechanisms adapted to the digital age offer an alternative to criminal procedures, the use of which has steadily declined. While it is questionable whether the civil enforcement frameworks have accomplished their goals of promoting deterrence and efficient redress, they contribute to a powerful package, alongside new business models and educational efforts, that replaces the need for public enforcement via criminal law. This Article will discuss a few notable civil-enforcement measures and schemes: the notice-and-takedown procedure, algorithmic enforcement by platforms, statutory damages, and the newly established copyrights small claims court.

IP & Innovation

Intended and Unintended Knowledge Spillovers in Innovation

Kornelius Kraft (University of Dortmund - Department of Economics; IZA Institute of Labor Economics)

Christian Rammer (ZEW – Leibniz Centre for European Economic Research – Industrial Economics and International Management Research)

ZEW – Centre for European Economic Research Discussion Paper No. 23-015

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4430643

Firms can use different sources of external knowledge for developing and implementing innovations. Some knowledge is provided deliberately by the source and constitutes intended knowledge spillovers, e.g., knowledge disclosed in publications or patent files. Other sources represent unintended knowledge

spillovers, such as reverse engineering of technologies or hiring workers from other firms. Based on data from the Community Innovation Survey, this paper analyses the role of different types of intended and unintended knowledge spillovers for innovation output at the firm level. Among intended knowledge spillovers, using knowledge from patents shows the strongest link to innovation output, particularly in case of product innovations with a high degree of novelty (world-first innovations). Knowledge from publications is not associated with a significantly higher innovation output. Among unintended spillovers, both reverse engineering and hiring of workers positively contribute to innovation output of firms, with stronger effects for reverse engineering. Interestingly, there is a strong link between reverse engineering and process innovation output (unit cost reduction), which reflects the fact that firms using this knowledge source operate in a market environment characterized by high price competition, which incentivizes an innovation strategy based on cost efficiency.

Vocational Training Support and Innovation at SMEs

Vladimir Hlasny (Ewha Womans University; United Nations Economic and Social Commission for Western Asia (UN-ESCWA))

Asia Pacific Journal of Innovation and Entrepreneurship, 2023

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4445980

Purpose: While the value of human capital for technological innovation is well acknowledged, literature on the role of vocational training in corporate innovation is notably scarce. This study assesses the effect of government support for small and medium-sized enterprise (SME) competencies on Korean firms' innovation. We investigate SMEs' patent applications (supported by the government to varying degrees) while accounting for firms' market position, ownership and management structure, as well as prior changes in firms' technologies, products, processes and other characteristics. Alternative hypotheses about management motivation – the 'lazy manager', 'career concerns', and 'special East Asian institutional constraints' hypotheses – are also evaluated.

Design: Censored and count data analysis methods are used on a panel of 595 Korean firms covering 2005–2015 from the Korean Human Capital Corporate Survey, Intellectual Property Office, and National Investment Commission. A regression discontinuity estimator accounts for potential endogeneity due to support for vocational training at firms.

Findings: Firms receiving training support are more innovative than firms without support, but latent effects may play a role. The regression-discontinuity model suggests that firms that succeeded only marginally in obtaining support had higher innovative output than non-recipients near the eligibility threshold.

Originality: Our findings establish that government support had the intended effect on SMEs' technological capacity. This cannot be discounted as a simple crowding-out effect. We also establish that management–ownership separation within firms was conducive to innovation, that product competition had an inverse U-shaped effect, and that management–ownership separation had a substitutable relationship with competition in overcoming managers' effort avoidance. The findings support the 'lazy manager' hypothesis over the 'career concerns' and the 'special East Asian institutional constraints' hypotheses.

Global Innovation and Competition in Quantum Technology, Viewed Through the Lens of Patents and Artificial Intelligence

Zeki Can Seskir (Karlsruhe Institute of Technology)

Kelvin Willoughby (HHL Leipzig Graduate School of Management)

Zeki Can Seskir & Kelvin W. Willoughby, 'Global Innovation and Competition in Quantum Technology, Viewed Through the Lens of Patents and Artificial Intelligence,' International Journal of Intellectual Property Management, 13, 1 (2023), 40-61. <https://doi.org/10.1504/IJIPM.2021.10044326>

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4431607

In this work we elucidate international trends in the field of quantum technology (QT) by analyzing a global patent database built from an operational definition of QT that was generated through the curated

application of artificial intelligence (AI). In doing so we demonstrate how the sophisticated use of intellectual property information, enhanced by the artful deployment of AI techniques, may produce more reliable and useful revelations for policy makers and managers about global innovation in emerging fields of technology than is possible through conventional methods of data collection and analysis. We also demonstrate the utility of this approach for reliably characterizing the evolving constituent sub-fields of QT. By adopting a hybrid human-AI approach to both the definition and the analysis of quantum technology, we have produced some novel insights about global innovation and national organizational profiles in the QT field, particularly concerning dynamic competition between the United States and China.

IP Law & Policy

Artificial Inventors

Daniel J. Gervais (Vanderbilt University – Law School)

Intellectual Property – A Global Project (S Frankel, M Chon, G B Dinwoodie, B Lauriat and J Schovsbo, eds) Edward Elgar 2023

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4410992

This short chapter reviews the application of patent incentives to inventions made by AI machines. It discusses two policy goals of patents in this space, namely acceleration of innovation with the help of AI but also the need to continue human progress. It reviews decisions by several courts, most of which have (correctly) decided that, as the law now stands, machines cannot be “inventors”. Moreover, financial incentives apply to humans and legal persons (managed by humans), not machines. Patent law should continue to promote human ingenuity.

Certifying Questions in Patent Cases

Paul R. Gugliuzza (Temple University – James E. Beasley School of Law)

Iowa Law Review, Vol. 109, *Forthcoming*

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4437413

The Federal Circuit is unique among the courts of appeals in that it routinely applies the precedent of other circuits as binding law. Specifically, the Federal Circuit applies its own prior decisions to issues that are “unique to” or “pertain to” patent law. But, for nonpatent issues, the Federal Circuit applies the precedent of the numbered, regional circuit in which the district court is located. Issues governed by regional circuit law in patent cases include matters of civil procedure, attorney-client privilege, substantive claims under copyright law, trademark law, antitrust law, and more.

Numerous scholars have criticized the Federal Circuit’s choice-of-law regime because it makes the law unstable and results hard to predict, undermining the legal uniformity Congress created the Federal Circuit to provide. Yet proposals to change the Federal Circuit’s choice-of-law rules have been around for decades and the circuit has shown little interest in reform. Indeed, there are good (though not bulletproof) reasons for the Federal Circuit to look to regional circuit law on issues that arise in patent and nonpatent cases alike, rather than developing a distinct body of law that district courts must apply in patent cases—or to patent claims—only.

Given that regional circuit law is here to stay at the Federal Circuit, this article proposes a novel, procedural solution to the problems that arise when regional circuit law provides no clear answer to a question on which it governs: the Federal Circuit should certify that question to the regional circuit. Certification would promote accuracy and predictability because the Federal Circuit would not need to “guess” about regional circuit law, as it does now. Similarly, because the Federal Circuit doesn’t have jurisdiction over every patent-related case filed in federal court, we might also allow the regional circuits to certify unsettled questions of patent law to the Federal Circuit.

Importantly, an inter-circuit certification procedure would be easy to implement: no legislation would be required. The Federal Circuit and the regional circuits could simply adopt local rules allowing certified questions, similar to the rules that currently allow federal courts to certify questions of state law to state supreme courts.

Intellectual Property and Tax Incentives: a Comparative Analysis of the EU and the US Legal Frameworks

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TTLF Working Papers No. 101, Stanford-Vienna Transatlantic Technology Law Forum 2023

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4420153

This paper analyzes the use of intellectual property rights and the most common forms of tax measures to incentivize innovation and conducts a comparative analysis between the policies adopted by the US and the European Union. The first part of the paper will focus on intellectual property rights (or IP rights), building a framework for drawing a more thorough analysis of the interaction between these rights and tax policy. Indeed, when tax policy instruments are used for purposes that differ from revenue-raising and wealth-redistribution, several criticalities arise, and a deep investigation becomes necessary to understand whether the objectives are pursued without hampering the status quo. The system should be looked at as a whole and several considerations should be conducted to understand whether there might be different ways to reach the same objectives more efficiently and without affecting the neutrality of the tax system. All in all, the proposed policy should be coherent with its objectives and avoid undesired effects. The most common ways to incentivize innovation through the tax system are R&D tax credits and IP Box Regimes. This work will provide an analysis of these different innovation-oriented tax measures. The evaluation will lead to considering expenses-based tax incentives, in the form of R&D tax credits, as a better complement to IP rights in incentivizing innovation, as opposed to IP Box Regimes, whose scope somewhat overlaps with IP rights. The last part of the analysis will compare the context and the legal framework of the European Union and the United States. In comparing those two different ways of achieving the same objective, it will formulate specific considerations on the different nature of the tax policies, emphasizing potential causes and consequences of different choices. Consequently, the paper will highlight the conclusions of the analysis.

Strategic Scientific Disclosure: Evidence from the Leahy-Smith America Invents Act

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Working Paper

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4429511

We examine the impact of technological competition on voluntary innovation disclosure around the enactment of the Leahy-Smith America Invents Act of 2011 (“AIA”). The AIA moves the U.S. patent system from the first-to-invent to first-inventor-to-file system and induces a patent “race” that increases technological competition. Laggard firms are slow to file a patent and are disadvantaged in this race. We find that laggard firms file fewer patents and increase the concentration of their patents in fewer technology areas. Laggard firms respond to the AIA by strategically increasing scientific publications in an attempt to block competitors from obtaining a patent. This effect is more pronounced among firms 1) most affected by the AIA; 2) with financial constraints; and 3) whose competitors have a lower cost of entry. We find that peers of laggards experience greater patent filing rejections for novelty and obviousness reasons after the AIA, suggesting this strategy is effective.

Copyright Law

Training Is Everything: Artificial Intelligence, Copyright, and Fair Training

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Dickinson Law Review, Forthcoming

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4437680

Artificial intelligence (“AI”) leapt into the public consciousness in 2022. It did so not because of a popular Hollywood movie, like *The Terminator*, or the extravagant claim of a company or pundit. Rather, it earned this newfound attention from the public due to its sudden usefulness and practicality. In quick succession, OpenAI, a software company based in San Francisco, released a graphics generator (that is, DALL-E2), a text generator (that is, GPT3.5), and then a chatbot (that is, ChatGPT) capable of carrying on compelling conversations with humans with no formal computer science training. Other companies, such as Stability AI and Discord, contributed to the ready availability of AI tools easy enough for many people to use. After decades of hype, AI finally achieved its first milestone of democratization.

However, there is a *sine qua non* lurking behind these democratized sources of AI that has triggered a substantial legal response. To learn how to behave, the current revolutionary generation of AIs must be trained on vast quantities of published images, written works, and sounds, many of which fall within the core subject matter of copyright law. To some, the use of copyrighted works as training sets for AI is merely a transitory and non-consumptive use that does not materially interfere with owners’ content or copyrights protecting it. Companies that use such content to train their AI engine often believe such usage should be considered “fair use” under United States law (sometimes known as “fair dealing” in other countries). By contrast, many copyright owners, as well as their supporters, consider the incorporation of copyrighted works into training sets for AI to constitute misappropriation of owners’ intellectual property, and, thus, decidedly not fair use under the law. This debate is vital to the future trajectory of AI and its applications.

In this article, we analyze the arguments in favor of, and against, viewing the use of copyrighted works in training sets for AI as fair use. We call this form of fair use “fair training”. We identify both strong and spurious arguments on both sides of this debate. In addition, we attempt to take a broader perspective, weighing the societal costs (e.g., replacement of certain forms of human employment) and benefits (e.g., the possibility of novel AI-based approaches to global issues such as environmental disruption) of allowing AI to make easy use of copyrighted works as training sets to facilitate the development, improvement, adoption, and diffusion of AI. Finally, we suggest that the debate over AI and copyrighted works may be a tempest in a teapot when placed in the wider context of massive societal challenges such as poverty, equality, climate change, and loss of biodiversity, to which AI may be part of the solution.

Intellectual Property Law in Gaming and Artificial Intelligence

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Alina Trapova (University College London (UCL))

Book chapter in Chris Bevan (ed), ‘Handbook on Property Law & Theory’ (Elgar Forthcoming)

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4421726

This chapter focuses on copyright and patent aspects of AI in gaming. As is known, copyright law protects original creative expression, while patents safeguard new inventions capable of industrial application. On the copyright side, the central classic question is what video games are in terms of protectable subject matter. This issue of the video games’ legal nature is rather old, but still pertinent topic. By now, it has been widely accepted that video games are complex subject matter from a copyright perspective, comprising not just a software, but also graphic and sound elements that contribute to the unique creative value of the game. That said, different jurisdictions adopt varying approaches to the

nature of video games with some classifying them as predominantly computer programs and others dissecting the different elements in the game or treating the game as an audio-visual work as a whole. Patents instead have historically attracted less attention. Nonetheless, these can be extremely important for some hardware, software, development tools and other middleware companies, but as it currently stands the considerable cost tied to patents renders them less utilised in the field.

Against this background, AI has stepped in to not only disrupt classical IP models, but to also offer a wide range of immersive interactive experiences for gaming; thus, opening new avenues for exploitation. As far as copyright law is concerned, the infusion of an AI element into the game provokes questions of authorship when it comes to in-game creativity. Put differently, who is the author and owner of creative expressions when they are created by players within the context of playing the game where certain interactions are driven (and often dictated) by AI? When it comes to patents and AI in this industry, central issues revolve around whether inventions covering the video games' mechanics constitute patentable subject matter because they have technical features (and not just an unpatentable set of rules developed to be executed by hardware including a console or computer); and in general, whether patents protecting video games are too broad so as to discourage technological progress in this field.

This chapter starts with a brief explanation of the influence of AI in gaming (Section 2). It then moves to sketch out the copyright law authorship and in-game creativity challenges (Section 3). Next, it turns to the several patent law conundrums in the field (Section 4). The final part (Section 4) concludes the discussion by arguing that while AI in gaming has been rather recently implemented, the fast pace with which this creative industry develops will certainly quickly transform the experience of video game players, but also the manner in which one understands (intellectual) property in-game.

Batman Forever? The Role of Trademarks for Reuse in the US Comics Industry

Franziska Kaiser (University of Lausanne)

Alexander Cuntz (World Intellectual Property Organization (WIPO))

Christian Peukert (University of Lausanne (HEC))

CESifo Working Paper No. 10389

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4431380

We study how trademarks affect reuse of creative works in the comics industry. As a creative industry, the comics industry systematically relies on copyrights. But trademark protection can also be exploited to generate income from the reuse of comic characters or to strategically exclude others from reuse. Our unique data set combines US trademark records of comic characters with information on reuse in print media and franchise products from 1990 to 2017. We find that, on average, additional trademark protection is associated with a reduction in reuse in printed comic books of about 19%. We highlight three mechanisms: first, the negative relationship between trademarking and reuse has been especially pronounced since the early 2000s, when the arrival of digital technologies lowered the costs of entry, promotion, and distribution. Second, our results are driven by less reuse by third parties, not trademark holders. Third, reuse is higher when trademark owners license comic characters to third parties. The negative association between trademarking and reuse carries over to franchise products, but it is weaker and tied to the era of digitization, with a 2% decline in reuse in franchise movies and 9% lower reuse in video games.

The Subsistence and Enforcement of Copyright and Trademark Rights in the Metaverse

Cheng Lim Saw (Singapore Management University – Yong Pung How School of Law)

Samuel Chan (Singapore Management University – Yong Pung How School of Law)

SMU Centre for AI & Data Governance Research Paper No. 03/2023

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4452938

The metaverse has been widely hailed as a symbol of technological progress, presenting an immersive virtual realm that has the potential to transform how individuals engage in social and commercial activities. However, this conception of a borderless virtual world - which purportedly transcends the

capabilities and reach of Web 2.0 - sits uncomfortably with the territorial nature of intellectual property rights. This chapter examines the complexities surrounding the subsistence and enforcement of intellectual property rights within the metaverse, with a specific focus on copyright and trademarks. Especial attention is paid to issues concerning choice of law and jurisdiction. Finally, the authors conclude with two recommendations which aim to facilitate and supplement the application of existing rules in addressing copyright and trademark infringements in the metaverse.

IP & Trade

Transnational Competition: From Enforcement of Foreign Unfair Competition Judgments to Global Trademarks

Naama Daniel (The Hebrew University of Jerusalem, Federmann Cyber Security Research Center – Cyber Law Program)

IDEA: The IP Law Review, Forthcoming

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4437508

This paper exposes, for the first time, the urgent risks emerging from applying the recently-concluded Convention on the Recognition and Enforcement of Foreign Judgments to unfair competition judgments, leading to the creation of global trademarks. Already acceded to by the EU and signed by the US, the Convention will enter into force on September 1, 2023.

Analyzing the interplay between unfair competition, intellectual property (IP), torts, and private international law, using the prism of international instruments, the paper exposes the threats to national trade, competition, and IP policies concealed within the Convention. While the Convention excludes the enforcement of foreign IP judgments due to the principle of IP territoriality, the Convention does apply to tort judgments. Classifying unfair competition judgments as tort judgments, thereby obligating Member States of the Convention to enforce them, will de facto bypass the exclusion of IP from the scope of the Convention, and will undermine national policies and the principle of territoriality. Moreover, due to the overlap between unfair competition and IP, combined with the ubiquity of the global online market, and considering extraterritorial, global injunctions recently granted by national courts, the enforcement of such foreign judgments will lead to the creation of global trademarks. The paper contends that the risks emerging from the possible enforcement of unfair competition judgments should support an interpretation excluding such judgments from the scope of the Convention, and argues that Member States of the Convention should guarantee this interpretation in their national laws, in order to protect their national policies.

Intellectual Property, Foreign Investment and Sustainable Development

Peter K. Yu (Texas A&M University School of Law)

ELGAR COMPANION ON IP AND SUSTAINABLE DEVELOPMENT, Bitá Amani, Caroline Ncube and Matthew Rimmer, eds., Edward Elgar Publishing, 2023, Forthcoming

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4447741

In December 2015, the United Nations adopted the 2030 Agenda for Sustainable Development. This agenda sought to achieve development for the next fifteen years and featured seventeen sustainable development goals (SDGs). Focusing on issues lying at the intersection of intellectual property rights, investment promotion regimes and the SDGs, this chapter begins by reviewing the ambiguous causal relationships between intellectual property, foreign direct investment and technology transfer. The chapter then discusses the protection of foreign intellectual property investments through international investment agreements, which are broadly defined to cover investment chapters in international trade agreements. Specifically, the discussion explores the standards of protection commonly found in international investment agreements and the investor-state dispute settlement mechanism. This chapter concludes by identifying eight strategies that host states in the Global South may deploy to ensure that their investment promotion regimes, as used in the intellectual property area, can better align with the SDGs.

Other Topics

Measuring Innovation in Energy Technologies: Green Patents As Captured by WIPO's IPC Green Inventory

Lorena Rivera León (World Intellectual Property Organization (WIPO))

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World Intellectual Property Organization (WIPO) Economic Research Working Paper Series No. 44

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4429912

We analyze inventions in green energy technologies over the period 2005-2017. We use a novel dataset, making use of the IPC Green Inventory of the World Intellectual Property Organization (WIPO) to analyze four broad categories of green energy technologies including alternative energy production technologies, energy conservation technologies, and green transportation. We use these data to look at how patent families and PCT international patent applications have evolved in this field in recent years. We find that energy innovation-related patenting has first expanded exponentially up until 2013, both in terms of the total number of patent families and PCT international patent applications in green energy technologies. Yet this period of accelerated growth in the number of published green energy patents has been followed by a period of deceleration—even a slow decline. Although most green energy technologies have seen a downward trend in the annual number of patents published since 2012, the decline has been most pronounced in nuclear power generation technologies and alternative energy production technologies. The latter notably include renewable energy technologies, such as solar and wind energy, and fuel cells. In contrast, patents in energy conservation technologies and green transportation technologies have continued to grow, but at a slower pace.

AI-Generated Inventions: Implications for the Patent System

Gaëtan de Rassenfosse (Ecole Polytechnique Fédérale de Lausanne)

Adam B. Jaffe (Brandeis University; Motu Economic and Public Policy Research; National Bureau of Economic Research (NBER))

Melissa F. Wasserman (The University of Texas at Austin - School of Law)

Working Paper

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4434054

This symposium article discusses issues raised for patent processes and policy created by inventions generated by artificial intelligence (AI). Using insights from economic research on intellectual property rights, it argues in favor of allowing patent protection for AI-generated inventions. Next, the Article examines how the emergence of AI inventions will alter the patentability standards and whether a differentiated patent system that treats AI-generated inventions differently from human-generated inventions is normatively desirable. The Article concludes by considering the larger implications of allowing patents on AI-generated inventions, including changes to the patent examination process, possible increase in the concentration of patent ownership and patent thickets, and potentially unlimited inventions.

Sales Free and Clear of an Intellectual Property Licensee's Interests in Bankruptcy – Looking to In Re Tempnology for Guidance

Summer Chandler (Louisiana State University Paul M. Hebert Law Center)

15 Drexel L. Rev. 271 (2023)

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4437395

Uncertainty surrounds many issues that exist at the intersection of bankruptcy law and intellectual property law. Section 363(f) of the Bankruptcy Code permits the debtor to sell assets free of a third

party's interest in such assets, provided one or more preconditions is satisfied. When a debtor rejects a license agreement pertaining to the debtor's intellectual property, however, § 365(n) of the Bankruptcy Code allows the licensee to choose to retain its rights to use the intellectual property that was the subject of the rejected license agreement. One unsettled question is whether a debtor may sell intellectual property pursuant to § 363(f) and thereby extinguish any interest a nondebtor licensee might have otherwise retained under § 365(n). This Article seeks to bring clarity to this important question.

The Article first examines this question in light of the Supreme Court's decision in *Mission Prod. Holdings, Inc. v. Tempnology, LLC*. It concludes that the Court's analysis in *Tempnology*, buttressed by principles of statutory construction and the relevant legislative history, supports the conclusion that the protections of § 365(n) should not be construed as trumping the free and clear sale power of § 363(f). The Article then examines this result against the backdrop of two competing visions for the role of bankruptcy law—the proceduralist account and the traditionalist account. The Article determines that both theoretical frameworks support the conclusion that the free and clear sale power of § 363(f) should not be curtailed by the protections afforded to licensees in the context of the rejection of an intellectual property license agreement.

Transportation Distance Decay of Knowledge Spillovers and Smart Specialization in China

Haixiao Wu (Hangzhou Normal University)

Working Paper

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4443768

This study investigates the effect of transportation distance on knowledge spillovers and smart specialization in China. Utilizing a micro-level regression approach, the paper examines the heterogeneous effects of transportation distances on the probability of intra- and inter-class patent citations. The results indicate that both road distance and high-speed rail connection have a significant effects on knowledge spillovers, supplementing previous studies of research collaborations using patent data by showing how transportation cost mitigates strategic interaction. The findings provide a unique analytical approach for regional high-tech development policy and planning with a spatial inter-field network perspective. This paper contributes to the limited literature on the subject and provides new estimates of the relationship between transportation distance and knowledge spillovers in China.

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

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