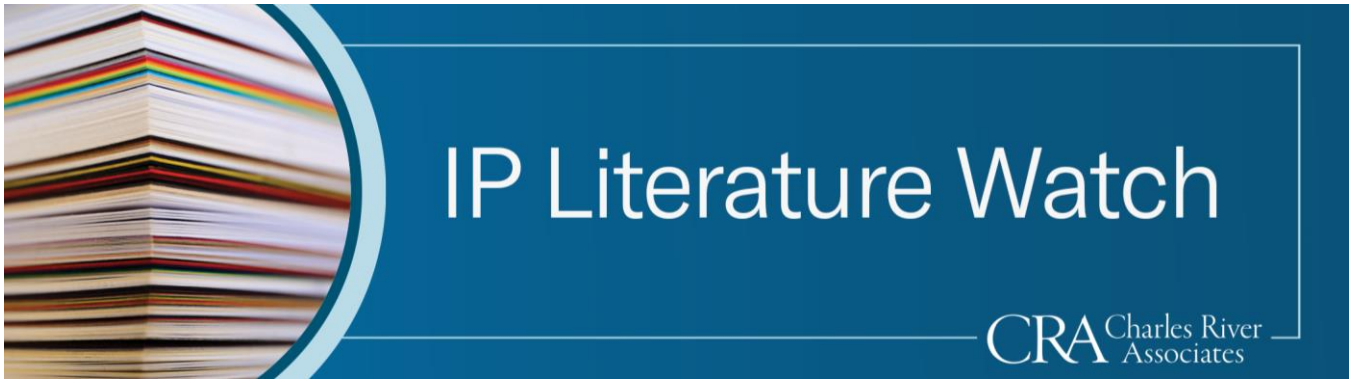

November 2025

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

How Do Firms Resolve Patent Disputes? Insights from Competitive Dynamics and Market Uncertainty

Danmo Lin (James Madison University)
Du Liu (East China Normal University (ECNU))
A. Elizabeth Whalley (University of Warwick - Finance Group)
Working Paper
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5731422

We develop a real options model to examine the determinants of patent dispute outcomes between two producing firms. By analyzing the dynamic strategic interactions between a patent-owning incumbent and an allegedly infringing challenger, we find that the intensity of competition introduced by new market entry plays a crucial role in determining whether firms settle their disputes, the timing of settlements, and the terms of any royalties. Greater competition intensity, higher market volatility, and a larger divergence in the firms' financial incentives to continue litigation reduce the likelihood of settlement. Our model provides insights into litigation and settlement patterns and post-dispute market structures, illustrating how intellectual-property-based product market competition, market uncertainty, patent protection, and legal frameworks collectively shape the landscape of patent disputes

Liability for Copyright Infringing Output of Generative AI Systems - Evolving the European Reproduction Right

Jan Bernd Nordemann (Humbolt University of Berlin)
Jonathan Pukas (NORDEMANN)
Malte Baumann (NORDEMANN)
Working Paper
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5721084

Generative AI systems can sometimes produce output that infringes copyrights. The question is: who is liable for the unauthorized acts of reproduction involved? The first candidate would be the user, as the person who directly initiates and steers the generation process. One could also argue, however, that in certain types of case, it is actually the AI provider who directly infringes. In other cases it may be appropriate to at least hold

the AI provider secondarily liable. As far as communication to the public is concerned, the CJEU has already established a flexible liability regime covering such secondary liability cases. This regime also leads to compelling conclusions regarding the secondary liability for reproductions in AI output.

In the event that output produced by an AI system infringes copyrights, a nuanced, case-by-case assessment must be made. This article looked at three different scenarios: (1) copyright infringements produced as a result of user inputs, (2) copyright infringements due to system-based causes (in particular, training), and (3) copyright infringements inherent in the intended purpose.

IP & Licensing

Enhancing Standard Essential Patents' Enforcement through Litigation: A Case for Judicial Determination over Arbitration

Enrico Bonadio (City University London, The City Law School)
Arjun Solanki (BPP University)
Working Paper
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5728062

This article examines the enforcement of standard essential patents (SEPs), arguing that judicial litigation offers superior outcomes over arbitration for licensing disputes. It situates SEPs disputes at the intersection of patent law, competition, and technical standards, underscoring the complexity arising from multi-jurisdictional enforcement and FRAND (fair, reasonable, and non-discriminatory) licensing obligations.

The paper contends that key features of litigation—transparent rate-setting, rigorous expert evidence scrutiny, the development of binding precedent, and appellate review—make courts more effective in addressing the technical, economic, and public interest dimensions of SEPs licensing. While alternative forums like arbitration may provide efficiency and confidentiality benefits for simple commercial disputes, they lack robust mechanisms for rate calibration, transparency, precedent creation, and coordinated global relief. The article concludes that public adjudication remains essential for yielding predictable, equitable, and market-beneficial SEP licensing frameworks, while arbitration should play only a supplementary role in such contexts.

Copyright's Invisible Hand: Subsidizing America's Cultural Institutions

Guy Rub (Temple University - James E. Beasley School of Law; Ohio State University (OSU) - Michael E. Moritz College of Law)
111 Cornell Law Review Online (forthcoming 2026)
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5749122

The doctrine of copyright exhaustion conceals a substantial and underappreciated subsidy at the heart of American copyright law. For more than a century, it has operated as a deliberate congressional scheme transferring billions of dollars in value to cultural institutions, such as libraries, museums, and galleries.

This Essay reconceptualizes copyright law as a system of choices about when rightsholders may and may not separate purchasers based on their use. Viewed through this lens, exhaustion emerges as Congress's decision to forbid unbundling that would burden cultural institutions. It allows those institutions to acquire millions of copyrighted items at consumer prices rather than institutional premiums that unconstrained markets would demand. Legislative history, statutory design, and comparative law confirm that this subsidy was no accident, but an intentional policy to support institutions that expand access to knowledge and foster our shared culture and heritage.

That framework is now under siege. As physical books give way to ebooks, publishers circumvent exhaustion by charging libraries three to five times the retail price for temporary digital licenses. Recent judicial decisions intensify the threat by treating inflated institutional prices as the copyright owners' natural entitlement, unraveling Congress's carefully crafted scheme to secure the vitality of cultural institutions.

The way the legal system responds to this erosion will determine whether cultural institutions endure as engines of democratic access or devolve into pay-to-play licensees in an information aristocracy where only the wealthy can fully participate in our cultural life.

IP & Litigation

Intellectual Property Strategies for AI-Enabled Drug Development

Enrico Nikhil Pradhan (Independent)
Bringing Medicines to Life: How Intellectual Property Enables Innovation in the Life Sciences (eds. Jonathan M. Barnett and Bowman Heiden, Cambridge University Press, forthcoming 2026)
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5630990

Conventional biopharma IP strategy, focused on tangible drug assets, faces disruption on several fronts. AI-driven drug discovery technologies continue to improve and bringing candidates into trials, if not yet to FDA approval. Greater awareness of the high cost and failure rate of traditionally developed drugs is also bringing more attention to the potential of AI technologies to bring drugs to market faster and with lower cost. The impending patent cliff for several blockbuster drugs will also lead firms to reevaluate efforts allocated to asset-focused patent protection. In addition, the FDA recently released draft guidance regarding disclosure requirements for AI technologies used in drug development, which may shift the line on the tradeoff between patent and trade secret protection.

This chapter will outline these disruptions as well as the current AI drug development landscape, including identifying trends on how AI-focused firms are currently allocating resources to assets, specific targets or modalities, and/or underlying AI technologies. In view of this landscape and other disruptions in the biopharma market, the chapter will outline actionable IP strategies for players across the landscape including academic institutions, early-stage companies, and large pharmaceutical enterprises. Specific considerations for executing on IP strategies and other approaches for establishing exclusivity around new technologies and business models will be evaluated, including guidance on the patent vs. trade secret decision and tactics to strengthen patent applications for examination and litigation success, enabling stakeholders to adapt and thrive in this evolving landscape.

IP & Innovation

Traumatic Shocks, Near-Misses, and Radical Innovation

Luis Ballesteros (Boston University - Questrom School of Business)
Working Paper
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5772926

This study examines how direct exposure to traumatic shocks shapes the trajectory and composition of local inventive activity in the United States from 1995 to 2022. Using geolocated U.S. patents and sudden natural disaster footprints in a boundary design with staggered difference-indifferences, the results reveal a distinct post-shock divergence in radical innovation among locations directly affected, those nearly missing the

disaster, and those never exposed. Relative to near miss locations, disaster areas expand into new technological domains about 41% more often and exhibit roughly 29% higher upper tail novelty. Disaster areas also outperform never-exposed locations by 124% and 22% on the respective measures. This boundary divergence is both extensive, where inventors in hit areas explore new technology subclasses, and intensive, where their inventions venture further from existing knowledge combinations. In contrast, near-miss locations show a 17% drop in new entries and a 12% decline in technology novelty versus never-exposed areas. These effects are strongest three to six years post-disaster, consistent with lags between idea generation and patent filing, and attenuated in severe-disaster zones, suggesting a recalibrated willingness to take inventive risks that is bounded by local capacity constraints. Additional analyses show that increased exploration extends beyond disaster-relevant technologies and is not driven by economic rebounds, market demand, or selective migration. This study contributes new evidence to the behavioral foundations of innovation under uncertainty and underscores the spatial and, often, serendipitous nature of strategic search after trauma.

Knowledge Spillovers of Products and Processes

Colin Davison (College of Wooster - Department of Economics)
Working Paper
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5685983

This paper provides evidence that product innovations generate more knowledge spillovers than process innovations. I measure the existence of knowledge spillovers using patent-to-patent citations, the text of patents, and by measuring the stock of product and process R&D available to a firm. I find that product patents generate more citations and that the novel text in product patents is more likely to be reused relative to process patents. The result is robust a rich set of controls and heterogeneity analysis reveals that the gap in product and process knowledge spillovers widens for innovations that are novel or occurring in rapidly evolving areas of technology. I also find that when the stock of product (process) R&D available to a firm increases, patenting at the firm increases (decreases).

Talent Competition and Innovation Strategy

Wenchuan Zhao (University of Oxford - Said Business School)
Wentao Li (School of Management, Xiamen University)
Working Paper
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5674723

We examine how geographic clustering affects corporate innovation strategies and firms' value creation in high-technology industries. Geographic proximity to competitors creates a fundamental tension: while knowledge spillovers enhance productivity, intensified competition for skilled workers distorts firms' R&D investment decisions. We develop a theoretical model that features heterogeneous patent output, demonstrating that firms maximize short-term shareholder value under competitive pressure but reduce long-term value creation through diminished knowledge spillovers, thereby creating a wedge between private returns and social returns to innovation. Using a convolutional neural network approach to construct counterfactual locations, we analyze how the entry of S&P 500 high-tech firms affects the innovation portfolios of incumbent firms. Following competitor entry, incumbents increase patent output by 7.5% and modestly boost the economic value of patents, yet experience a 55% reduction in citation counts and a significant decline in scientific importance. This finding represents a strategic reallocation of R&D capital from long-term, high-uncertainty research projects toward commercially focused innovations with shorter payback periods and higher deployment certainty. Dynamic analysis reveals that treated patents receive more immediate citations but exhibit substantially lower long-term impact. We identify labor market competition as the causal

mechanism through various tests that exploit work experience of inventors and regional variation in labor market regulations.

Innovative Human Capital and Stock Returns: A Global Perspective

Min Fang (University of Florida - Department of Economics)
Hanni Jie (The University of Hong Kong - Faculty of Business and Economics)
Po-Hsuan Hsu (National Tsing Hua University - Department of Quantitative Finance; National University of Singapore (NUS) - Asian Bureau of Finance and Economic Research (ABFER))
Yan Xu (HKU, Faculty of Business and Economics)
Working Paper
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5763883

We analyze the asset pricing implications of innovative human capital from both theoretical and empirical perspectives. Our model features a separation of R&D staff from regular manpower in the production of knowledge and the final good, and predicts expected stock returns to increase with firm-level human capital investment. Additionally, labor market frictions for talent strengthen the predictability of stock returns. We then match international stocks to U.S. patent records, and show that firms with higher inventor-to-employee ratios subsequently experience higher stock returns. Moreover, such a relation is stronger in countries with stronger patent protection that prohibits inventor mobility and increases corresponding adjustment costs.

IP Law & Policy

Patentability of Synthetic Creativity: A Transatlantic Revisit in Light of AI Laws

Runhua Wang (The University of Science and Technology Beijing; University of Science and Technology Beijing; University of Illinois at Urbana-Champaign)
TTLF Working Papers No. 142, Stanford-Vienna Transatlantic Technology Law Forum (2025).
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5741463

As artificial intelligence ("AI") increasingly contributes to invention, the traditional humancentered patent regime faces challenges in recognizing and rewarding inventions generated by synthetic creativity, which is with reduced human input and interaction with machine learning technologies. How should patent law adapt to synthetic creativity, and what role should AI regulations play in complementing or constraining patent protection for AI-assisted inventions? This Article contends that both the inclusion and exclusion of synthetic creativity from patent protection can be justified. However, patent law alone is insufficient to govern synthetic creativity. A policy alignment is required between patent regimes and AI regulations. By analyzing AI governance frameworks in some transatlantic countries, this Article shows how AI laws may supplement patent law by imposing compliance costs, guiding ethical use, and preserving human creativity. It advocates for a balanced legal ecosystem that accommodates synthetic creativity, suggesting that compatibility between patent law and AI regulation is essential for promoting sustainable innovation.

Intellectual Property Rights of AI-Generated Works: Challenges for National Law

Peace Ahumwire (University of Kigali)
Maitre Sabiti Alexis (University of Kigali)
Working Paper
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5786082

Artificial Intelligence (AI) increasingly produces creative works, including art, literature, music, and software, challenging traditional intellectual property (IP) law, which assumes human authorship. Current national legal frameworks often lack clarity on issues of ownership, authorship, moral rights, and liability for AI-generated works. This study examines the legal challenges these works pose under national IP law, focusing on copyright and patent protection. It also considers comparative approaches in jurisdictions such as the United Kingdom, the United States, and the European Union, highlighting judicial and legislative responses to AI authorship and inventorship. The research identifies gaps in existing laws and proposes reforms to ensure that IP frameworks remain relevant in the AI era. By addressing these challenges, the study contributes to creating a legal environment that supports innovation while safeguarding the rights of creators, developers, and users of AI-generated works.

Intellectual Property and the Human Right to Science: Adjusting the Balance in Times of Technology Acceleration

Christine Allan de Lavenne (SIDE Law Offices)
Sebastian Porsdam Mann (University of Copenhagen - Centre for Advanced Studies in Bioscience Innovation Law (CeBIL); National University of Singapore (NUS))
Helle Porsdam (University of Copenhagen - Centre for Advanced Studies in Bioscience Innovation Law (CeBIL))
Working Paper
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5746723

Intellectual property law, in its various forms, functions by granting temporary, exclusive rights over specific informational goods and innovations, thereby treating certain knowledge outputs as private assets. Conversely, an increasingly significant strand of human rights law and scholarship, centered on the human right to science, posits that knowledge and the benefits of scientific progress should, to a large extent, be considered public goods, readily accessible and shared with all of society. On a first reading, these two regimes of international law-intellectual property and human rights-would appear to be fundamentally opposed in their approach to knowledge governance. Indeed, a considerable body of scholarship has highlighted this tension, often portraying the two as inherently conflictual. However, an analysis of their respective histories, origins, exceptions, and justifications reveals that they have a lot more in common than it appears and, more importantly, that their constructive interaction and cooperation are needed to address today's major technology-led changes. From quantum computing to artificial intelligence, the eventual degree and distribution of the impact of powerful new technology on intellectual and societal interests will depend on the harmonization of these frameworks. We believe that both regimes already contain the necessary tools for such a harmonization. We introduce a conceptual framework based on three 'IP dials', or three distinct, actionable mechanisms-Exclusions, Exceptions, and Expiration-which, used separately or in concert, can help achieve and maintain an appropriate balance between intellectual property protection and the human right to science.

Intellectual Property Rights and Innovation in Vertically Related Industries

Michael A. Klein (Rensselaer Polytechnic Institute)
Working Paper
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5619092

This paper examines the economic impact of intellectual property rights (IPRs) in the context of complementary vertical innovation by firms in upstream and downstream industries. I provide empirical evidence that industry downstreamness is associated with 1) a greater intensity of product versus process innovation, and 2) a greater relative importance of patents versus trade secrecy in firm appropriation strategies. I develop a novel model of endogenous growth to explore the implications of these findings. The model predicts that strengthening patent protection generates downstream-biased technical change in most cases. The corresponding reallocation of resources across industries creates distributional effects from patent policy that existing analysis do not account for. I examine the impact of these effects on economic growth and social welfare, and explore their implications for optimal patent policy.

Copyright Law

The Fallacy of the File: How the Memorization Metaphor Misguides Copyright Law and Stifles AI Innovation

Aline Larroyed (Dublin City University)
Working Paper
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5782882

This article examines the metaphor of "memorization" in current debates about artificial intelligence (AI), particularly large language models (LLMs), and its migration into copyright law. In machine learning, memorization has a narrow technical meaning, describing rare instances where models reproduce verbatim fragments of training data. Yet, when transposed into legal discourse, the term has been misread as equivalent to copyright reproduction. This conflation has far-reaching implications: it risks doctrinal incoherence, undermines the foundations of EU copyright law, and threatens to destabilize the balance carefully struck in the acquis, including the text-and-data mining (TDM) exceptions present in Articles 3 and 4 of the EU Copyright in the Digital Single Market Directive. Through an interdisciplinary analysis combining linguistics, computer science, and copyright law, the article argues that the memorization metaphor is both misleading and legally unsound. Training an LLM does not entail a bit-wise reproduction, storage or the retention of identifiable copies, but rather the optimization of parameters that enable statistical generalization. Treating this optimization as reproduction under copyright law constitutes a category error that expands copyright concepts beyond their intended scope. The article identifies the risks of legislating on the basis of this metaphor: doctrinal drift, policy misalignment, increased compliance costs for small and medium-sized enterprises, barriers to research and open science, and disproportionate benefits for incumbents. It also shows how misplaced remedies based on this misunderstanding risk failing authors while entrenching litigation-driven outcomes. The article proposes constructive alternatives, including models that favor creators, stronger dataset governance, and support for open science. It concludes that regulation must avoid metaphorical shortcuts and instead reflect the technical realities of AI in order to preserve copyright balance, foster innovation, and secure meaningful remuneration for creators.

Artificial Creativity

Clark D. Asay (Brigham Young University - J. Reuben Clark Law School)
BYU Law Research Paper Forthcoming
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5668752

Artificial intelligence (AI) is increasingly capable of generating outputs that resemble human creativity, all without much human direction. This Article interrogates the frequent assertion among commentators, scholars, and policymakers that such AI-generated content is or will become a near-perfect substitute for human creative works. That assumption underpins widespread fears of AI displacing creative professions and undermining copyright law's role in incentivizing human ingenuity. This Article challenges that narrative by identifying and analyzing foundational distinctions between artificial and human creativity—specifically, the absence in AI of intrinsic motivation, intentionality, and authenticity. These human-centric qualities are often essential to works that resonate emotionally and experientially with audiences, rendering human and AI outputs imperfect substitutes—and, in many cases, complements rather than competitors.

Drawing on literature in creativity studies, economics, and law, the Article establishes a framework for understanding when AI outputs are most likely to function as substitutes (e.g., in functional or utilitarian works) and when human creativity will retain market and cultural value (e.g., in expressive, emotionally resonant works). It then explores the implications of this analysis for copyright law. Contrary to some predictions, copyright remains essential in incentivizing human creative output, especially in collaborative environments where AI serves as a tool rather than an autonomous creator. The Article argues that copyright law is not facing obsolescence but rather a critical juncture requiring doctrinal adaptation. In particular, the Article evaluates pressing issues such as the copyrightability of AI-assisted works, the threshold for human authorship, and the growing influence of "market dilution" theories under copyright law's fair use doctrine.

Ultimately, this Article offers a forward-looking vision in which copyright law continues to promote human creativity while evolving to accommodate a world where artificial and human forms of creativity increasingly intersect. Courts, the Copyright Office, and Congress must carefully distinguish between human and artificial contributions in shaping doctrine that balances innovation, legal coherence, and cultural values.

Is There a Captain in the Ship? The EU Copyright Regulator's Quest in the Generative AI Era

Christophe Geiger (Luiss Guido Carli University)
Vincenzo Iaia (Luiss Guido Carli University - Department of Law)
Innovation Law and Ethics Observatory (ILEO) Research Paper Series No. 25-09
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5765244

In the last phase of the adoption process of the AI Act, provisions on copyright protection have been introduced in the text of the regulation after great pressure from the content industries. They refer to a large part to the legal framework of the 2019 Copyright in the Digital Single Market (CDSM) Directive, a legislation adopted before the exponential development of Generative AI technology, casting doubts on the appropriateness of the legal solutions proposed in order to deal with such a fundamental change in the creative ecosystem. In this new regulatory framework, a new EU institution, the AI Office, has been tasked with the role to ensure that providers of general-purpose AI systems adhere to copyright-relevant transparency obligations and respect the opt-out decisions of copyright holders. The success of the AI Office will depend on the ability to find practical and proportional solutions that can accommodate the interests of copyright holders without stifling technological advancement in this strategic field. However, the way the copyright chapter of the AI Act has been conceived bears the risk that the AI office will struggle to become the needed authority to help designing a new social contract for Generative AI providers, creators and creative activities. Moreover, the elaboration of a Code of Practice for providers of general-purpose AI models,

although offering a promising governance model for future lawmaking, added a further layer of complexity. Meanwhile some concurring solutions have been integrated in legislative proposals of certain EU Member States, like the activation of the extended collective license mechanism set forth by Art. 12 of the CDSM Directive. Moreover, some alternative regulatory instruments are emerging in the scholarly debate, such as the introduction of a statutory remuneration right in the context of commercial text and data mining together with the establishment of a European Copyright Authority. This chapter emphasizes the need to devote more attention and further research to the regulatory options available to secure for the future independent solutions that can foster a vibrant and competitive environment for creativity in the EU.

Deep Neural Watermarking for Robust Copyright Protection in 3D Point Clouds

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Annals of Emerging Technologies in Computing, volume 9, issue 4, 2025[10.33166/AETiC.2025.04.002]
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5689102

The protection of intellectual property has become critical due to the rapid growth of three-dimensional content in digital media. Unlike traditional images or videos, 3D point clouds present unique challenges for copyright enforcement, as they are especially vulnerable to a range of geometric and non-geometric attacks that can easily degrade or remove conventional watermark signals. In this paper, we address these challenges by proposing a robust deep neural watermarking framework for 3D point cloud copyright protection and ownership verification. Our approach embeds binary watermarks into the singular values of 3D point cloud blocks using spectral decomposition, i.e. Singular Value Decomposition (SVD), and leverages the extraction capabilities of Deep Learning using PointNet++ neural network architecture. The network is trained to reliably extract watermarks even after the data undergoes various attacks such as rotation, scaling, noise, cropping and signal distortions. We validated our method using the publicly available ModelNet40 dataset, demonstrating that deep learning-based extraction significantly outperforms traditional SVD-based techniques under challenging conditions. Our experimental evaluation demonstrates that the deep learning-based extraction approach significantly outperforms existing SVD-based methods with deep learning achieving bitwise accuracy up to 0.83 and Intersection over Union (IoU) of 0.80, compared to SVD achieving a bitwise accuracy of 0.58 and IoU of 0.26 for the Crop (70%) attack, which is the most severe geometric distortion in our experiment. This demonstrates our method's ability to achieve superior watermark recovery and maintain high fidelity even under severe distortions. Through the integration of conventional spectral methods and modern neural architectures, our hybrid approach establishes a new standard for robust and reliable copyright protection in 3D digital environments. Our work provides a promising approach to intellectual property protection in the growing 3D media sector, meeting crucial demands in gaming, virtual reality, medical imaging and digital content creation.

IP & Trade

Borderless Patents: How Foreign Patent Injunctions Undermine National Court Patent Jurisdiction

Enrico Bonadio (City University London, The City Law School)
David Katz (Independent)
Rutgers Law Review (forthcoming 2025)
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5681187

In this article, the authors address the legal principle that national patent systems are required to be treated as independent of one-another, particularly as that principle is embodied in the 1995 World Trade Organization (WTO) Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS). The authors raise concerns that TRIPS' mandatory principle of independence may be violated where national patent infringement injunctions are used as a means to coerce global patent licensing on terms set by a single national jurisdiction ("global rate-setting injunctions").

The authors further address that while TRIPS can be enforced directly by WTO members via WTO processes, individual parties subject to a claim seeking worldwide rate-setting injunctions may also have their own means to enforce against TRIPS violations. First, individual parties might properly raise non-compliance with TRIPS as a legal defense against claims seeking a global rate-setting injunction. This is because some national courts are required to apply international law so as to conform with their nation's international treaty obligations in all circumstances, while others are required to do so wherever possible. Second, and under certain conditions, individual parties may be entitled to bring an action for damages against national jurisdictions issuing global rate-setting injunctions in accordance with well-established processes for investor-state dispute settlement (ISDS).

It is noted at the outset that this article addresses the use of patent infringement claims as a means to compel global licensing. It is not asserted that TRIPS would restrict, nor even address, other types of claims wherein intellectual property (IP) infringement claims are not asserted. For example, a party promising to license patents on a worldwide basis, but failing to do so, might become subject to breach of contract claims in a national court having jurisdiction to enforce the contract. Such contract (or other non-IP) claims are outside of the scope of the analysis herein, as TRIPS would pose no barriers to national enforcement of breach of contract claims (regardless whether those contract claims might involve IP licensing promises).

Other Topics

Inadvertent Patent Signals

David A. Simon (Northeastern University School of Law)
Michael Paasche-Orlow (Department of Medicine at Tufts Medical Center)
Hooman Noorchashm (Northeastern University (USA) - School of Law)
Working Paper
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5752682

Patents are often seen as a solution to the particular economic problem of appropriability posed by nonexcludable, no rivalrous informational goods. But in the past twenty-five years, scholars have argued that patents also do something else: solve informational asymmetries by credibly signaling information about the invention and the firm that would otherwise be too costly to produce or less credible if disclosed in other

contexts. This Article adds to this account by arguing that, as a descriptive matter, patent signals intended for one audience can convey information to another, unintended audience—either through the cost of obtaining the patent or the information it contains. In particular, it argues that in the medical device context, these "inadvertent" patent signals can be relevant to regulators' decisions ex ante (review of a device) and ex post (enforcement of federal and state device law). Because patent signals can provide potential evidence of legal violations, the Article then argues that, as a prescriptive matter, regulators should use patent signals in the medical device context. To improve regulators' ability to identify and use these patent signals, it proposes two disclosure-oriented reforms. First, regulators should require that manufacturers include all patents covering their devices in applications for authorization from the Food and Drug Administration (FDA). Second, the FDA should create a public "Yellow Book," which provides complete, detailed, and updated information about all patents covering any medical device.

Strategic Patenting Under Financial Disclosure Mandates

Li Azinovic-Yang (University of Chicago - Booth School of Business)
Yue Chen (The Chinese University of Hong Kong)
Shunsuke Matsuno (Columbia University - Columbia Business School)
Sunho Yoo (Massachusetts Institute of Technology (MIT))
Working Paper
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5767542

We examine how financial disclosure regulations influence firms' intellectual property (IP) protection strategies. While disclosure enhances transparency, it also exposes firms to competitive risks by revealing insights into their product market performance. We develop a model of strategic patenting that jointly embeds financial and patent disclosure. Our model predicts that increased financial transparency raises the risk of not patenting, compelling firms to lower their patenting threshold. This effect, which leads to more patent filings of lower average quality, is predicted to dominate as long as financial and patent disclosures are substitutes or not strongly complementary. We test these predictions using the ASC 606's revenue disaggregation requirements. Using a difference-indifferences design, we find that affected firms file significantly more patents after the announcement, and the average quality of new patents declines. We also find that the effects are stronger for firms that historically rely more on patenting for protection and for firms with more opaque ex-ante information environments.

Patent Obfuscation and Reliance on External Financing

Donald E. Bowen III (Lehigh University)
Kathleen Weiss Hanley (Lehigh University - College of Business; European Corporate Governance Institute (ECGI))
Sungjoung Kwon (Wayne State University - Mike Ilitch School of Business)
William Mann (Emory University - Department of Finance)
Qianqian Yu (Lehigh University)
Working Paper
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5761306

We decompose patent complexity into fundamental and strategic components using LLMs, interpreting the latter as obfuscation. Patent obfuscation has risen sharply across all major technology areas over the last 15 years. While obfuscation deters competitor innovation and reduces infringement litigation, it also decreases patents' financing capacity. Using IV tests, we show obfuscated patents are less often pledged as collateral or sold. In difference-indifferences tests, firms that recently pledged patents or experienced negative credit-rating shocks reduce obfuscation and policy shocks affecting obfuscation have weaker effects for financially constrained firms. Our findings highlight new connections between financing and the path of innovation.

From Innovation to Default: Impact of Patent Activity on Credit Risk

Anton Aleynikov (University of Zurich)
Santiago Walliser (University of Zurich)
Matthias Uhl (University of Zurich - Department Finance)
Working Paper
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5764642

We investigate how firm-level innovation-measured via patent grants, citations, and high-quality inventions-affects corporate credit risk and CDS pricing. Using a panel of 191 firms, we first calibrate an inverse-Gaussian Ornstein-Uhlenbeck intensity model to each firm's CDS term structure and extract risk-neutral survival probability curves. We further orthogonalize the patentbased features and estimate Arellano-Bond regressions on the factors that characterize the survival probability curves, demonstrating that innovation alters the level, slope, and curvature of the curves. We then embed patent-based covariates directly into the intensity specification and analyze how they affect the CDS prices within a no-arbitrage model: the augmented model reduces in-sample and out-of-sample pricing errors by up to 15% relative to a leverage-and-volatility baseline. Finally, we compute model spread deltas with respect to innovation covariates to quantify the economic impact on CDS spreads, finding that higher innovation activity systematically tightens spreads-especially at longer tenors. Overall, our findings show that patent-driven covariates provide incremental information on credit risk beyond traditional metrics and offer practical enhancements for intensity-based CDS pricing.

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