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

Increasing Transparency in Digital Music Markets: Regulatory Pathways Beyond Copyright Law?

Maria José Schmidt-Kessen (Central European University (CEU) – Department of Legal Studies)
Gil Dagan (Max Planck Institute for Innovation and Competition)
Marta Cantero Gamito (University of Tartu; School of Transnational Governance)
Eirini Volikou (Jurisconsult in Competition Law, Data Protection, Legal Training and Project Management, Porto)
NIR Nordiskt Immateriellt Rättsskydd nr 1 2026
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=6719821

Music markets have long been criticised for a lack of adequate and transparent information on the exploitation of musical works and concerns regarding the working conditions for music creators. Initial hopes that the rise of online music consumption might bring a significant change to this data transparency problem have not sufficiently materialised. In the European Union (EU), one of the main legislative reactions to the radical changes that digitisation and the rise of online platform has brought to music and other creative sectors, and the resulting impact for the exploitation of copyright and related rights, has been the Directive for Copyright in the Digital Single Market (DSM Directive).

One of the novelties of the DSM Directive is contained in Article 19. Article 19 enshrines a transparency obligation to the benefit of authors and performers to receive, at least once a year, “up to date, relevant and comprehensive information on the exploitation of their works and performances from the parties to whom they have licensed or transferred their rights”, including from sub-licensees. This article examines whether and how other areas of EU law regulating digital platform markets, in particular EU competition law and EU platform regulation, could support the effective implementation of the transparency obligations set out under Article 19 DSM Directive.

IP & Licensing

Compulsory Licensing of Patents, Government Use and the Reassertion of State Sovereignty in Pharmaceutical Intellectual Property

Enrico Bonadio (City University London, The City Law School)
Arjun Solanki (BPP University
in Cristiana Sappa (ed.), Research Handbook on Sovereignty in Intellectual Property Rights (forthcoming Elgar 2026)
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=6723258

This chapter shows that compulsory licences (CLs) and government use (GU) of patents in the pharma sector, when they are employed or considered, function as instruments of state power within the multilateral intellectual property regime. Drawing on an inventory of 25 CL and GU instances across 15 jurisdictions from 2001 (the year the Doha Declaration on the TRIPS Agreement and Public Health was adopted at the WTO) to 2024, we develop a sovereignty continuum framework that situates these interventions along a spectrum from credible threat to actual deployment. We argue that CL and GU authority is most consequential not when formally exercised but when credibly threatened, a mechanism we can classify as ‘lex umbra’. Also, the cases highlighted here show that such authority often functions as a graduated expression of state sovereignty over pharmaceutical patents, enabling states to subordinate private exclusivity rights to public health objectives within the constraints of the TRIPS framework.

IP & Litigation

Copyright Litigation After Generative AI

Jacob Noti-Victor (Yeshiva University – Benjamin N. Cardozo School of Law; Yale Information Society Project)
Forthcoming 45 Yale Law and Policy Review (2026-2027)
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=6761720

Courts and regulators have increasingly found that AI-generated content is not copyrightable, but that works created with AI assistance may receive protection for the human author’s contribution to or arrangement of AI-generated elements. This Article identifies an unforeseen consequence of this framework: it transforms copyright infringement analysis from a content-based inquiry into a process-based one. Because AI-generated content is often indistinguishable from human-authored material on its face, courts cannot perform the “filtration” analyses that copyright litigation typically requires—separating protectable from unprotectable elements—without investigating the process by which a work was created. Unlike ideas, facts, or other public domain materials, which can be identified from a work’s content, the scope of copyright in an AI-assisted work can be identified only through examination of the prompts, outputs, iterations, and editing decisions that gave rise to the final work. This shift has profound consequences for copyright’s litigation system: early disposition will be all but impossible, discovery costs will balloon, and opportunities for strategic behavior will abound.

The Article identifies this problem at its inception and considers solutions that might head it off. Courts might be tempted to abandon rigorous comparison in favor of holistic analysis or an identicalness standard, but both of these approaches would undermine copyright’s policy agenda. Instead, the Article proposes a range of mechanisms that would allow courts to continue using filtration, but make it more administrable: a graduated evidence disclosure requirement in litigation, under which plaintiffs who fail to produce creation

records would face a heightened similarity standard; an expanded evidentiary role for the Copyright Office as a repository for AI process documentation; and technological tools that can help verify and refine the evidentiary record. Together, these proposals aim to preserve the most analytically sound form of infringement analysis while adapting its evidentiary demands to the realities of a world of ubiquitous AI-assisted creation.

IP & Innovation

Growth Is Getting Harder to Find, Not Ideas

Teresa Fort (Dartmouth College – Tuck School of Business)
Nathan Goldschlag (Economic Innovation Group)
Jack Liang (Temple University)
Peter K. Schott (Yale School of Management)
Nikolas Jason Zolas (U.S. Census Bureau – Center for Economic Studies; University of California, Davis)
CESifo Working Paper No. 12652
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=6723292

Relatively flat US productivity growth versus rising R&D expenditures is often interpreted as evidence that ideas are getting harder to find. We build a new 45-year panel tracking the universe of US firms' patenting to investigate the micro underpinnings of this conclusion, separately examining the relationships between research inputs and ideas (patents) versus ideas and growth. We find that average patents per R&D input are increasing, the elasticity of patents to R&D inputs is flat or rising, and there is not systematic evidence of a secular decline in patenting after controlling for research inputs. We then document a positive, significant, and fairly steady relationship between firms' patent and labor productivity growth rates. Average firm growth after controlling for patent growth, however, declines. Together, these results suggest that firms' innovative efforts play a key role in sustaining growth that has not diminished over the last four decades.

Interlocking Directorates, Innovation, and Knowledge Transmission

Mirko De Maria (Imperial College Business School)
Working Paper
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=6693818

This paper quantifies how shared board members at competing companies affect innovation. To account for persistent differences in board member ability, I introduce AKM-estimated board member fixed effects as controls in the analysis of interlocks and innovation, using the connectedness of the board member-firm network to separate board member heterogeneity from firm heterogeneity. I show that board interlocks are associated with higher innovative output, which is matched by a parallel increase in cross-citations between the two interlocked partners. However, I provide suggestive evidence that these innovation dynamics are more consistent with strategic patenting or patent monitoring rather than genuine technological learning as the dominant mechanism. This is because the composition of those cross-citations does not tilt toward newly reached partner patents, newly reached technology classes, or technologically close inventions. Rather, the stronger responses are concentrated in citations to partner patents that are older, more prominent, and not technologically proximate to the citing patent.

Are Labor-Controlled Firms More Innovative? Evidence from a Regression Discontinuity Design

Paul P. Momtaz (Syracuse University – Whitman School of Management)
Working Paper
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=6694338

We examine how labor representation on corporate boards affects innovation. Exploiting German co-determination law, which requires one-third (one-half) labor-elected directors in firms above 500 (2,000) employees, we implement a regression discontinuity design using administrative employer-inventor-patent data. Crossing either threshold raises innovative productivity, measured as the forward citation-weighted number of patents per firm, by about 20-25%. This increase is driven by more patents, while forward citations do not rise and decline significantly at the parity cutoff, indicating a shift toward more incremental, less path-breaking inventions. Additional evidence shows that labor-controlled firms insure workers against adverse labor market shocks, lengthen inventors' employment spells, and offer wage incentives that reward patent quantity rather than quality. Overall, labor representation expands the number of patented inventions but dilutes their average citation impact, reallocating innovative effort in labor-controlled firms from path-breaking to incremental projects.

Labor Mobility Restrictions and Exploratory Innovation: Evidence from the Inevitable Disclosure Doctrine

Jin Wang (Wilfrid Laurier University – Lazaridis School of Business & Economics)
Working Paper
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=6745379

We examine how legal restrictions on inventor mobility shape the composition of corporate innovation. Exploiting the staggered adoption of the Inevitable Disclosure Doctrine by U.S. state courts between 1980 and 2021, we find that affected firms reweight their patent portfolios toward exploratory research in new technological domains and away from exploitative refinements of their existing knowledge base. The compositional shift is supported by direct evidence on the underlying labor-mobility mechanism: following adoption, fewer of a firm's inventors depart for technologically related peer firms. Consistent with this retention effect, firms accumulate a larger share of star inventors and produce patents of substantially higher citation impact, even as raw patent counts decline. The reweighting is most pronounced among firms with limited exposure to technology spillovers, concentrated inventor bases, or operations in technologically thinner fields, where the protection of internally accumulated tacit knowledge is most valuable. Our findings identify a previously underappreciated benefit of restrictions on inventor mobility, namely their role in fostering long-horizon, high-impact innovation.

IP Law & Policy

The Executable Invention: On-Chain Normative Contracts as a New Instrument of Intellectual Property Law

Michael Aaron Russell (Universal Standard Axiom Corp)
Working Paper
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=6696419

The contribution is threefold: (1) definition of the OCNC as a new IP instrument category; (2) the first formal legal analysis of how blockchain deployment maps onto §§ 101–112; and (3) an argument that this

convergence represents the most significant structural evolution of the patent system since the America Invents Act, one the existing statutory framework is not yet equipped to fully accommodate. The ANC is released under CC0 1.0 Universal as a defensive publication, establishing prior art that prevents monopolization of the foundational architecture while preserving the inventor's one-year grace period for formal patent prosecution.

Structural Feasibility and the Architecture of Pharmaceutical Protection Regimes

Christina Laternser (Ann & Robert H. Lurie Children's Hospital of Chicago)
Working Paper
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=6809286

Research on pharmaceutical competition typically characterizes protection regimes using scalar measures such as patent counts, exclusivity duration, or terminal expiration horizons. This paper argues that these measures collapse categorically different institutional mechanisms into a common temporal metric, obscuring how protection regimes govern transitions to generic competition.

I introduce a Structural Feasibility Framework that distinguishes between feasibility constraints, which determine whether generic entry is institutionally possible, and modifying constraints, which shape entry dynamics conditional on feasibility. In pharmaceutical markets, regulatory exclusivity functions as a feasibility constraint because the FDA cannot approve competing products during active exclusivity periods, whereas patents shape entry through contingent litigation and adjudication processes. This distinction implies that the institutional architecture governing protection termination should matter independently of aggregate protection duration.

Using FDA Orange Book data (U.S. Food and Drug Administration 2025), I show that markets governed by fixed statutory exclusivity boundaries exhibit more compressed post-expiry generic entry timing distributions, whereas patent-mediated environments exhibit greater dispersion and longer right tails. I further show that markets with similar terminal protection horizons may nevertheless differ in internal protection regime geometry, indicating that scalar terminal-duration measures do not fully characterize institutional protection environments.

The paper reconceptualizes pharmaceutical protection regimes as structured institutional architectures rather than scalar durations and develops a framework for analyzing how institutional architecture shapes transitions into competition.

The Intersection of Patent Law and Traditional Knowledge Protection in India: Creating a Hybrid Intellectual Property Model for the Digital Age

Niyati (Bharti Vidyapeeth University Institute of Management and Entrepreneurship Development – New law college, pune)
Working Paper
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=6713518

India, with its rich diversity of traditional knowledge systems, faces significant challenges in protecting its indigenous innovations and creations under the existing intellectual property (IP) frameworks. While patent law primarily focuses on novel, non-obvious, and industrially applicable inventions, it is often ill-equipped to address the nuances of traditional knowledge (TK) and cultural expressions. In the digital era, the internet, artificial intelligence, and global access to information have posed new threats to the unauthorized use of India's traditional knowledge, whether in agriculture, medicine, or crafts. This article proposes a novel, hybrid

intellectual property model that merges elements of patent law, geographical indications (GI), and traditional knowledge databases to create a robust legal framework for the protection of traditional innovations in the digital age. By analyzing existing gaps in the protection of TK and examining global best practices, this article seeks to chart a path forward for India to protect its traditional knowledge while fostering innovation and economic growth in a globalized world.

Copyright Law

Casting Aspersions

Jessica Litman (University of Michigan Law School)
Forthcoming in 29 Stanford Technology Law Review (2026)
U of Michigan Public Law Research Paper No. 25-041
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=6802963

During the initial three-quarters of the 20th Century, the copyright bar of the United States was small, homogenous, and cordial. 50 years later, it is larger, more diverse, polarized, and hostile. In this essay, I suggest that one factor contributing to the hostility is copyright lawyers' disappointment with the laws that Congress encouraged them to craft for themselves. Although copyright lawyers repeatedly negotiated the substance and language of copyright legislation to meet their own specifications, they expected those laws to deliver too much and felt betrayed when the laws failed to work as they had hoped.

Owners of copyrights claim that the copyright law should give them full control of all commercially valuable uses of their works. The law has never secured control that extensive, but over the past 60 years, copyright owners have tried repeatedly to fix that. They have believed that they had succeeded in markedly improving their position. Those efforts proved disappointing. Representatives of copyright owners have expressed that disappointment with grievance and have come to believe that the interests they see as their opponents must be acting in bad faith.

The copyright system is currently facing important challenges. I suggest that if copyright lawyers can't move past their suspicion and mistrust, any proposed response to those challenges is likely to make them worse rather than better.

EU Copyright Reform: Between Promoting AI-Based Innovation and Safeguarding the Livelihood of Authors and Democracy

Josef Drexl (Max Planck Institute for Innovation and Competition; Ludwig Maximilian University of Munich (LMU))
Max Planck Institute for Innovation & Competition Research Paper No. 26-06
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=6751283

The advent of generative AI which enables the production of high-quality content comparable to copyright protected works at significantly lower costs, poses a significant threat to the livelihoods of many creative professionals. If these professionals were driven out of the market, this could also have serious implications for democracy. In response to this situation, the European Parliament has called on the Commission to initiate a reform of EU copyright law. In preparing such reforms, the Commission should aim to strike a fair balance between the interests of authors and publishers while also preserving sufficient incentives for AI development and supporting the competitiveness of the European AI sector.

Recalibrating Australian Copyright Law to Promote Creativity

Joshua Yuvaraj (University of Auckland – Faculty of Law)
(2026) 47(1) Adelaide Law Review (forthcoming)
The University of Auckland Faculty of Law Research Paper Series 2026
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=6705538

Generative artificial intelligence technologies are merely the latest challenge to copyright law's legitimacy in the 21 st century. In response, leading Australian intellectual property academics have called for copyright to be 'recalibrated' towards a pro-creativity and proinnovation vision. In service of that call, this article argues that a deeper understanding of creativity, drawing from disciplinary insights external to law, can usefully inform copyright policy that maximises creativity's impacts while minimising copyright law's costs. The article grounds this claim in three propositions: (a) encouraging creativity is regarded as a fundamental goal of Australian copyright law in the 21 st century; (b) there are inconsistent conceptualisations of creativity in Australian copyright jurisprudence; and (c) lawmakers and judges can build a more consistent, empirically-informed understanding of creativity by recourse to neurobiological understandings of the creative process, how creativity happens in community, the difference between artificial and human creativity, and how other disciplines class works as 'creative'. Initial law reform suggestions flowing from this knowledge framework include developing common law understandings of creativity for determining subsistence and broadening the scope of acceptable reuse of works to reflect communitarian understandings of creativity.

Copyright Authorship and Ownership in AI Generated Works: A study of Copyright Act 1957

Dr. Kamya rani (Panjab University – Regional Center)
Working Paper
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=6781098

Artificial intelligence (AI) is transforming industries at a fast pace, but it also brings forth challenging legal issues, especially within copyright law. In the past year, courts, lawmakers, and regulators have been addressing questions like whether AI-generated works can be copyrighted, if AI developers can be held accountable for using copyrighted content to train their models, and how existing intellectual property (IP) laws need to evolve to accommodate these new technologies. These concerns are crucial for creators, tech companies, and legal experts alike. As AI continues to rapidly advance, the intersection of AI and copyright law has become a central topic in legal discussions. Recent events have underscored the difficulties in defining ownership and safeguarding AI-generated content. This article will explore the evolving legal interpretations, foundational copyright doctrines, and international legal frameworks to shed light on India's current legal stance and the possible directions for reform.

IP & Trade

Borderless Commerce, Territorial Rights: Reassessing Trips in the Age of E-commerce

Nalin Kumar (Judicial Law Researcher, High Court, India (Former))
Working Paper
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=6746921

The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) was negotiated in 1994, before the commercial internet had meaningfully emerged as a global economic system. Amazon had not yet been founded. The World Wide Web remained limited in scale, and electronic commerce occupied little space in multilateral trade discussions. Yet the same agreement now governs the intellectual property

dimensions of a digital economy worth trillions of dollars, where software, databases, copyrighted works, trademarks, and patented technologies move across borders almost instantaneously through networks the agreement's drafters could scarcely have anticipated. The WTO's 1998 Work Programme on Electronic Commerce reflected an early recognition that the existing multilateral framework was beginning to encounter problems it had not been designed to address. The 1999 TRIPS Council Report identified several of them directly: online copyright infringement, the territorial nature of intellectual property rights, uncertainty over jurisdiction, and the unresolved classification of electronically transmitted products. More than twenty-five years later, many of those same questions continue to shape debates within international trade law. This paper argues that the principal difficulty is not the absence of intellectual property protection under TRIPS. In many respects, the agreement continues to provide an important legal foundation for copyright, patent, and trademark protection in the digital environment. A legal setup based on territorial enforcement mechanisms struggles to regulate commercial activity that occurs simultaneously across multiple jurisdictions through borderless digital networks. The discussion traces this issue across copyright, patent, trademark, geographical indication, and enforcement frameworks. It also examines the institutional response within the WTO system, including the July 2024 Joint Statement Initiative on Electronic Commerce, and considers the extent to which these developments have addressed the underlying difficulties. The paper concludes that, despite important institutional efforts, many of the structural issues identified during the early development of electronic commerce remain substantially unresolved.

U.S.-China Innovation Competition

Gerard Hoberg (University of Southern California – Marshall School of Business – Finance and Business Economics Department)
Huaizhou Li (UNSW Business School)
Gordon M. Phillips (Dartmouth College – Tuck School of Business; National Bureau of Economic Research (NBER))
Working Paper
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=6730426

We examine how foreign information access affects competition in innovation. We construct measures of Chinese information-gathering capacity based on industry geography and internet penetration. They predict actual Chinese-user downloads of U.S. firm filings. Increases in Chinese information access are followed by lower U.S. firm R&D, patent values, and patent grants. Chinese firms increase patenting in the same technology areas and cite more affected U.S. firms' prior patents. The effects are stronger in more contested markets and in industries receiving Chinese government support. Placebo tests do not produce similar results. The evidence is consistent with Chinese innovation competition reducing U.S. innovation.

Other Topics

Regulatory Architecture and the Timing of Generic Competition

Christina Laternser (Ann & Robert H. Lurie Children's Hospital of Chicago)
Working Paper
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=6764179

Pharmaceutical markets with similar nominal protection lengths often exhibit markedly different transitions to generic competition. This article examines whether the institutional architecture governing protection termination is associated with the timing of generic entry. Using FDA Orange Book data from 1985–2025, I construct ingredient–form/route markets and analyze the duration between recorded protection expiry and

first generic approval. Markets previously governed by statutory regulatory exclusivity exhibit faster post-expiry generic approval than markets without exclusivity, whereas denser patent environments are associated with slower transition. Exclusivity markets also display more compressed timing distributions, with approvals clustering more tightly near expiry and exhibiting thinner long-delay tails. These patterns persist within comparable patent environments and across alternative specifications. The findings suggest that the predictability of protection termination may shape competitive dynamics independently of nominal protection length or patent counts.

Mandatory ESG Disclosure and Corporate Green Innovation: Evidence from the Hong Kong Exchange's 2020 Policy Upgrade

Yihang Sun (Chinese Academy of International Trade and Economic Cooperation (CAITEC))
Working Paper
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=6756938

We examine whether mandatory ESG disclosure is associated with changes in corporate green innovation, using the Hong Kong Exchange's 2020 policy upgrade as a quasi-natural experiment. In a matched panel of 153 Chinese firms (2012-2023) with A+H cross-listed firms as the treatment group, green patent grants show a positive estimate at lag 2 (adjusted p = 0.042 after core-family Bonferroni correction). Application-side estimates are positive at lag 1 (adjusted p = 0.068), directional but above the 5% threshold. The distributed lag model confirms application effects concentrate at lag 1 and grant effects at lag 2, consistent with patent examination cycles. The response is concentrated in invention patents without quality-proxy improvement. Standard transmission channels produce null results. Under full-family Bonferroni correction (21 tests), no result passes 5%. These findings point to a directional quantity response without quality improvement, extending the quantity-quality divergence literature to mandatory disclosure.

Mastering the Machine: Human-AI Co-Creation, Copyright, and the Future of the Creative Industries

Aurelio Aguit Jr (Independent)
Working Paper
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=6701198

For centuries, the act of creation-whether painting a canvas, writing a poem, or composing a symphonyhas been fiercely guarded as a uniquely human endeavor. However, the recent explosion of generative artificial intelligence (AI) has forced a global reckoning with this deeply held belief. This paper synthesizes the current landscape of AI-enabled creativity using a systematic review methodology. By examining recent scholarship across cognitive psychology, law, computer science, and the humanities, this review explores how AI is dismantling traditional boundaries of authorship and artistic production. The findings reveal a complex paradox: while AI tools democratize access to creative mediums and boost individual output, they simultaneously threaten to homogenize collective culture and erode the intrinsic value of human cognitive struggle. Furthermore, the rapid adoption of these technologies has outpaced current legal frameworks, creating a fractured global landscape regarding copyright protection, the doctrine of fair use, and the legal definition of an "author." Ultimately, the literature suggests that the future of the creative industries relies not on AI replacing humans, but on establishing structured, deeply intentional frameworks for human-AI collaboration that preserve human agency, mitigate algorithmic bias, and protect the economic livelihoods of traditional creators.

Patents, Firm Rents, and Worker Compensation: Causal Evidence from Quasi-Random Patent Allocation

Afroza Alam (Halle Institute for Economic Research)
André Diegmann (Halle Institute for Economic Research; Centre for European Economic Research (ZEW))
CESifo Working Paper No. 12666
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=6768539

This paper provides new causal evidence on how patent allowances affect firms and their employees based on quasi-random assignment of patent applications to examiners. Exploiting employer–employee records with newly linked German firm data and web-scraped patent documents, we show that patent-induced shocks reduce firm exit, improve productivity, and increase wages, with rent-sharing elasticities between 0.10 and 0.21. Wage gains are broadly observed across occupational tasks, with high heterogeneity: managers benefit disproportionately in publicly traded firms, whereas broader wage increases accrue to workers in non-traded firms. Our findings highlight the role of institutional features and firm organization in shaping how rents are shared.

Contact

For more information about this issue of IP Literature Watch, please contact the editor:

Tolga Bilgicer
Principal
Chicago
+1-312-377-9285
TBilgicer@crai.com

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