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 & Licensing**

**Licensing standard essential patents: what is fair, reasonable, and non-discriminatory?**  
Daniel F. Spulber (Northwestern University – Kellogg School of Management)  
Working Paper  

Holders of Standard Essential Patents (SEPs) and technology implementers commit to negotiate license agreements on terms that are Fair, Reasonable, and Non-discriminatory (FRAND). A three-stage process precisely defines FRAND commitments: Standard Setting Organizations (SSOs) establish coordinated FRAND commitments by consensus decision making, SEP holders and implementers create negotiated FRAND commitments through license agreements, and courts specify adjudicated FRAND commitments. SSO FRAND commitments are general rules designed to foster market negotiation of patent license agreements. The article emphasizes that the best indicators of what are FRAND commitments are the many negotiated patent license agreements because patent holders and implementers are best informed about their own interests. The courts have successfully applied common law principles and comparable license agreements to interpret FRAND commitments. The article argues that administrative or judicial regulation would reduce standardization, impede innovation, and constrain market negotiation of patent license agreements. The article introduces the concept of the “patent run-around” to describe potential effects of “licensing to all” regulations. The article cautions that because of some landmark court decisions, there is a risk that the provisions of patent license agreements could be determined more by judicial regulation than by negotiation in competitive markets. Problematic developments include the imposition of aggregate rate caps and basing royalties on the estimated incremental value of standardized technology. The article recommends that courts avoid formulating one-size-fits-all FRAND commitments.
Additive manufacturing (AM), also known as 3D printing, has the potential to shift supply chains from global networks that rely on centralized production with traditional manufacturing technologies to largely digital networks with decentralized, local 3D printing, i.e., digital inventory. One type of firm that is particularly well positioned to drive this transition are original equipment manufacturers (OEMs), who design and produce capital goods. In this paper we propose that the OEM acts as an intellectual property (IP) licensor by selling spare parts designs, rather than physical spare parts. With these designs a buyer can print spare parts locally at much shorter lead times and at lower setup costs. We consider both an OEM who serves multiple identical buyers, and an OEM who serves two non-identical buyers. For both cases we characterize the optimal IP license contract. This determines which customers opt for the IP license channel and which remain in the traditional centralized sales channel, thus creating insights into the degree to which a supply chain decentralizes. We numerically show this to occur in a surprisingly large number of cases and we observe significant profit increases for OEMs who adopt this new business model. Our results thus show that IP licensing by OEMs can become a major enabler in the transition to digital networks with decentralized 3D printing.

Technical standards created by industry standards-development organizations (SDOs) enable interoperability among products manufactured by different vendors. Over the years, SDOs have developed policies to reduce the risk that SDO participants holding patents covering the SDO’s standards will disrupt or hinder the development and deployment of these standards. These policies, including commitments to license standards-essential patents (SEPs) on terms that are fair, reasonable and non-discriminatory (FRAND), gain transnational application given the international character of SDO activities and are most effectively interpreted and applied on the basis of private law (contractual) principles. However, SDO policies are typically embodied in an SDO’s governing documents, which are in turn regulated by the law of the jurisdiction in which the SDO is based. This somewhat arbitrary linkage of SDO policies to national and state law has created inconsistencies in their interpretation and threatens to spark jurisdictional competition in an unproductive race to the bottom. This paper poses the question whether it would be possible to decouple SDO policy interpretation from the patchwork of national and state laws that purport to govern such policies in favor of a common lexicon of interpretive principles derived from the shared understanding of SDO participants: a “lex mercatoria” of standardization.
Exploring the interfaces between big data and intellectual property law
Daniel J. Gervais (Vanderbilt University – Law School)

This article reviews the application of several IP rights (copyright, patent, sui generis database right, data exclusivity and trade secret) to Big Data. Beyond the protection of software used to collect and process Big Data corpora, copyright’s traditional role is challenged by the relatively unstructured nature of the non-relational (noSQL) databases typical of Big Data corpora. This also impacts the application of the EU sui generis right in databases. Misappropriation (tort-based) or anti-parasitic behaviour protection might apply, where available, to data generated by AI systems that has high but short-lived value. Copyright in material contained in Big Data corpora must also be considered. Exceptions for Text and Data Mining (TDM) are already in place in a number of legal systems and likely to emerge to allow the creation and use of corpora of literary and artistic works, such as texts and images.

In the patent field, AI systems using Big Data corpora of patents and scientific literature can be used to expand patent applications. They can also be used to “guess” and disclose future incremental innovation. These developments pose serious doctrinal and normative challenges to the patent system and the incentives it creates in a number of areas, though data exclusivity regimes can fill certain gaps in patent protection for pharmaceutical and chemical products. Finally, trade secret law, in combination with contracts and technological protection measures, can protect data corpora and sets of correlations and insights generated by AI systems.

Computational experimentation
Tabrez Ebrahim (California Western School of Law)
Vanderbilt Journal of Entertainment & Technology Law, Vol. 21, 2019

Experimentation conjures images of laboratories and equipment in biotechnology, chemistry, materials science, and pharmaceuticals. Yet modern day experimentation is not limited to only chemical synthesis, but is increasingly computational. Researchers in the unpredictable arts can experiment upon the functions, properties, reactions, and structures of chemical compounds with highly accurate computational techniques. These computational capabilities challenge the enablement and utility patentability requirements. The patent statute requires that the inventor explain how to make and use the invention without undue experimentation and that the invention have at least substantial and specific utility. These patentability requirements do not align with computational research capabilities, which allow inventors to file earlier patent applications, develop prophetic examples, and provide supporting disclosure in the patent specification without necessarily conducting traditional, laboratory-based experiments. This Article explores the contours and applications of computational capabilities on patentability, proposes reforms to the utility doctrine and to patent examination, responds to potential critiques of the proposed reforms, and analyzes innovation policy in the unpredictable arts. In light of increasing computational experimentation, this Article recommends strengthening the utility requirement in order to prevent a state of patent law in which enablement is subsumed into utility.
IP & Litigation

Is 'but for' causation necessary to establish inducement?
Norman Siebrasse (University of New Brunswick – Fredericton – Faculty of Law)
Working Paper

The established Weatherford test for inducing patent infringement requires, as its second branch, that inducement by the indirect party be the “but for” cause of the direct infringement. This article shows that such a requirement of “but for” causation leads to problematic results, particularly when the evidence indicates that the direct infringers do not heed the encouragement provided by the indirect party. The article argues that while the “but for” causation requirement is often stated, it has rarely actually been applied, and there are several cases which suggest a less stringent requirement. This article argues that the best way to reconcile the cases is to recognize that causation in the second branch of the inducement test may be established on the basis of material contribution, rather than “but for” causation, while also recognizing that “but for” causation remains necessary for an award of any monetary remedy. This approach, combining material contribution as the substantive causation requirement at the second stage of the inducement test, with “but for” causation in awarding monetary remedies, also appropriately balances the policy concerns of ensuring effective enforcement of the patentee’s rights while avoiding the problem of overbroad enforcement.

Contributory infringement in Canadian law
Norman Siebrasse (University of New Brunswick – Fredericton – Faculty of Law)
Working Paper

Contributory infringement arises when a party knowingly supplies a direct infringer with a product especially adapted for use in a patented invention. Canadian courts have regularly stated that there is no liability for contributory infringement in Canadian law, in the absence of inducement. This article shows that there are nonetheless few cases actually refusing to impose liability on a contributory infringer, and none at the appellate level. The article argues that the reasoning and results in almost all the leading cases support a rule that supply of a product especially adapted to infringe, and with no substantial non-infringing use, constitutes indirect infringement, even in the absence of active inducement. The current shape of the law is a result of a misreading of the early leading case of The Copeland-Chatterson Company Ltd v Hatton, in combination with the problematic decision in Slater Steel Industries Ltd v R. Payer Co, which is the only prominent case refusing to impose liability in such circumstances. Slater Steel has been confined to its facts in both subsequent Court of Appeal decisions to address it, and this article argues that Slater Steel was wrongly decided on its facts. The article concludes that it is open to the courts to recognize that liability for contributory infringement may be imposed in Canadian law.
A central issue in administrative law is how to balance power between executive-branch agencies and the courts that review their decisions, both to preserve separation of powers and ensure good decisionmaking. In patent law, however, such a balance does not exist. When Congress created the U.S. Court of Appeals for the Federal Circuit (“Federal Circuit”) in 1982, it intended for the court to be a generalist institution that heard appeals from a variety of agencies. But since that time, the Federal Circuit has become a specialized court, with patent-related matters now comprising the overwhelming majority of its docket. Over the years, this specialization has led to various problems, including disregard for the Patent and Trademark Office’s (“PTO’s”) autonomy, political activism, and judicial legislating. The Federal Circuit has consolidated power to the point that no other branch of government serves as an effective check, raising separation-of-powers concerns. Consequently, it is important that Congress act to restore a balance of power in patent law. This could be accomplished by granting the PTO greater rulemaking authority to limit the Federal Circuit’s ability to engage in judicial legislation, to facilitate public participation, and to generally serve as a counterbalance to the powerful court.

Exceptional, after all and after Oil States: judicial review and the patent system
Michael Greve (George Mason University – Antonin Scalia Law School, Faculty; American Enterprise Institute (AEI))
George Mason Legal Studies Research Paper No. LS 19-04

The U.S. Supreme Court’s seminal 2018 decision in Oil States Energy Servs., LLC v. Greene’s Energy Group, LLC appears to mark the end of “patent exceptionalism”—that is, the notion that patent law and administration (should) remain at variance with the precepts of general administrative law. The petitioners contended that invention patents are “private rights” that, under the Constitution, can be canceled only by Article III courts, not administratively. The Court’s unequivocal rejection of that position removed any lingering constitutional cloud over the Patent and Trademark Office’s (PTO) administrative patent review and reexamination procedures under the 2011 America Invents Act. However, the statutory judicial review regime of the Patent Act still departs from general administrative law. Parallel to an APA-conforming provision for appellate judicial review, the Patent Act permits disappointed patent applicants to contest adverse administrative decisions by way of an original, de novo action in U.S. district court. The relevant provision, Section 145 of the Patent Act, is wholly incompatible with administrative-law precepts of appellate (deferential, on-the-record) judicial review. Dating all the way back to the 1836 Patent Act, it is a statutory remnant of Marbury’s near-forgotten world of private rights and separated powers.

This Article chronicles the strange survival of Section 145 and explores its present-day, post-Oil States implications. As a practical matter, the rarely used Section 145 may offer a means of “gold-plating” patents: an administrative revocation of a “Section 145” patent would amount to a constitutionally prohibited executive revision of a final judicial decision. As a doctrinal matter, the Supreme Court has
clearly recognized the “exceptional” nature of Section 145. The Oil States decision, read on its own but especially in the context of the Supreme Court’s broader administrative and patent law jurisprudence, affirms that position. Patent law will remain exceptional after all—just not for reasons grounded in property law and theory, but in a statutory and administrative-law sense.

**Continuing patent applications and performance of the U.S. Patent and Trademark Office as of fiscal year 2018**

Christopher Anthony Cotropia (University of Richmond – School of Law)
Cecil D. Quillen, Jr. (University of Richmond School of Law)
Richmond School of Law Intellectual Property Institute Research Paper No. 2019-01

This study is the tenth in a succession of studies of the impact of continuing patent applications on USPTO performance. It presents and analyzes data from United States Patent and Trademark Office (USPTO) Annual Reports and a from a series of FOIA requests for the period from 1973 through 2018 (1980 through 2018 for UPR Allowance Rates/Grant Rates, 1983 through 2018 for Abandoned Applications and Application Disposals).

Examination performance of the USPTO continued to decline in FY 2018 as UPR Application Allowance Rates/Grant Rates corrected for Refiled Continuing Applications reached a record 100%, exceeding the previous record 99% in FY 2001. The number of Applications Allowed (334,799) and Patents Issued (308,631) remained near record levels.

The number of Refiled Continuing Applications (274,629), which are reworked for the USPTO, approached the number of Original and Divisional Applications (323,129) and comprised 46% of the total number of applications filed in FY 2018. Abolition of Refiled Continuing Applications would eliminate this rework and increase the resources available for examination of Original and Divisional applications by as much as 85% without any increase in staff or budget.

The number of Abandoned Applications that were Refiled (185,880) was more than double the number of Abandoned Applications that were Not Refiled (90,297), and the number of Applications Allowed (334,799) was more than three and one-half times the number of Applications Abandoned Without Refiling (90,297). UPR Application Backlogs declined slightly.

**Copyright Law**

**Towards a European ‘fair use’ grounded in freedom of expression**

Christophe Geiger (Université de Strasbourg – CEIPI)
Elena Izyumenko (Université de Strasbourg – CEIPI)

This article examines the tailoring of remedies in cases involving online infringement in particular. Courts are sometimes persuaded to enjoin entire websites or to order the defendant and its cloud service providers to end any use of the copyrights or trademarks at issue, while other courts limit their injunctions to the adjudicated conduct and the parties before them. The question sometimes arises whether a site-killing or device-killing order should issue in light of the defendant's infringement and
third parties' facilitation of it, or whether the defendant should simply be ordered to desist from the infringing acts (and related parties from facilitating those specific acts). An increasingly prominent alternative is to withhold an injunctive remedy in view of the potential recovery of monetary relief. This article explores why, despite statutory language, case law precedent, and political consensus that website blocking should not occur, the sweeping remedy of site blocking (enjoining any facilitation of site access) continues to be available. It argues that site-blocking and orders to third parties not to index or provide services to a website are in tension with the Supreme Court's decision in eBay, the First Amendment case for narrowly targeted remedies when publishing and digital communication are at stake, the Digital Millennium Copyright Act's limiting language, remedial proportionality doctrine, and the failure of the Stop Online Piracy Act of 2011 in Congress. Remedial inequities are also emerging as between patent and copyright or trademark holders, because the bare loss of control of intellectual property is justifying copyright and trademark injunctions despite patent law cases suggesting that impaired exclusivity and negotiating leverage are not necessarily "irreparable injury."

**The limits of international copyright exceptions for developing countries**
Ruth Okediji (Harvard Law School)
Vanderbilt Journal of Entertainment & Technology Law, Vol. 21, No. 3, 2019

Development indicators in many developing and least-developed countries reflect poorly in precisely the areas that are most closely associated with copyright law’s objectives, such as promoting democratic governance, facilitating a robust marketplace of ideas, fostering domestic markets in cultural goods, and improving access to knowledge. Moreover, evidence suggests that copyright law has not been critical to the business models of the creative sectors in leading emerging markets. These outcomes indicate that the current configuration of limitations and exceptions (L&Es) in international copyright law has not advanced the human welfare goals that animate its leading justifications in developing countries. This Article considers the design of the international copyright system in light of what economists have learned about the conditions necessary for economic development and examines what changes to international copyright L&Es those insights demand. It concludes that a more realistic dialogue about the relationship between copyright and economic development compels new types of L&Es, thus underscoring where developing and least-developed countries should sensibly invest their limited economic and political capital when engaging with the international copyright framework.

**Embedding content or interring copyright: Does the internet need the 'server rule'?**
Jane C. Ginsburg (Columbia University – Law School)
Luke Budiardjo (Columbia University, Law School, Students)
Columbia Journal of Law & the Arts, Vol. 42, No. 4, 2019

The “server rule” holds that online displays or performances of copyrighted content accomplished through “in-line” or “framing” hyperlinks do not trigger the exclusive rights of public display or performance unless the linker also possesses a copy of the underlying work. As a result, the rule shields a vast array of online activities from claims of direct copyright infringement, effectively exempting those activities from the reach of the Copyright Act. While the server rule has enjoyed relatively consistent adherence since its adoption in 2007, some courts have recently suggested a departure from that precedent, noting the doctrinal and statutory inconsistencies underlying it.
Authors and copyright owners have long lamented that the server rule’s immunization of certain online activities eviscerates their ability to control how their works are disseminated on the Internet. But many Internet users and commercial actors have incorporated the rule’s liability shield into their expectations about how the Internet does (and should) function. Accordingly, while authors and copyright owners foresee improved prospects for remuneration, many commentators and advocacy groups have expressed concerns regarding the recent judicial doubt about the validity of the server rule. They contend that, without the server rule, the Internet would cease to function as it does today.

However, these concerns overlook the applicable defenses—in particular, the defenses of safe harbor under § 512 of the Digital Millennium Copyright Act and express license—which, we expect, would take on a more significant role in a postserver rule world. In this Article, we explore the likely effect of the potential reversal of the server rule, taking into account these defenses. We conclude that the principal difference between copyright law with and without the server rule comes down to the author’s ability to obtain the removal of links to infringing content, and to authorize embedding of content from a source to which the public had lawful access.

Moreover, while the reversal of the server rule may interrupt a handful of online services that rely entirely on the unauthorized appropriation of copyrighted works, most online practices would likely continue unaltered in the post-server rule world.

Other IP Topics

**Intellectual property, tariffs, and international trade dynamics**
Federico Mandelman (Federal Reserve Bank of Atlanta)
Andrea Waddle (Federal Reserve Banks – Federal Reserve Bank of Richmond)
Working Paper

The emergence of global value chains not only leads to a magnification of trade in intermediate inputs but also to an extensive technology diffusion among the different production units involved in arms-length relationships. In this context, the lack of enforcement of intellectual property rights has recently become a highly controversial subject of debate in the context of the China-U.S. trade negotiations. This paper analyzes the strategic interaction of tariff policies and the enforcement of intellectual property rights within a quantitative general equilibrium framework. Results indicate that, in principle, tariffs could be an effective deterrent for weak protections for intellectual property. Moreover, weakening enforcement may be a strong deterrent for raising tariffs. These results combined indicate that there is scope for international cooperation on these fronts.

**Impoverished IP**
Stephanie Plamondon Bair (Brigham Young University J. Reuben Clark Law School)
Working Paper

Intellectual Property (IP) scholarship is generally concerned with how innovation policy impacts social welfare by providing appropriate incentives for innovation. But lately, the question of who participates in IP creation — with an eye to distributive justice as well as social welfare more broadly — has been
getting more attention. Most scholars writing in this vein acknowledge IP’s shortcomings in achieving proportionate participation and representation across socioeconomic, race, and gender lines. But many argue that in spite of these flaws, IP regimes can advance distributive justice by giving the poor and other members of disadvantaged groups opportunities to accumulate wealth and improve their position in society.

Yet the aspiration some hold out for IP as this particular type of tool for distributive justice is, unfortunately, unlikely to be realized, because it overlooks how poverty impacts creative decision-making. A large and growing body of psychological research shows that poverty changes the decision-making of those experiencing it. This Article argues that in fact, poverty makes it very difficult to think and act in ways that bring about the creative advances meaningful IP participation requires. IP is thus inherently limited as a mechanism for escaping poverty.

Poverty’s impact on creative thinking and action also has wide-ranging implications for innovation theory and policy that reach beyond specific demographic groups. This Article explores how the psychology of poverty intersects with IP, and in doing so, makes four main contributions to the literature. First, it calls into question the feasibility of scholarly calls for IP to act as a mechanism for empowering the poor. Second, it offers an additional, novel explanation for why we see lower levels of IP participation among socioeconomically disadvantaged groups. Third, it argues that IP scholars need to start looking beyond incentives in their quest to optimize socially beneficial innovation. While IP’s dominant utilitarian theory posits that IP provides needed incentives to innovate, what the account fails to consider is the possibility that some otherwise willing participants are unable to respond to these incentives. Finally, in offering policy recommendations, it turns IP scholars’ current thinking about IP and distributive justice on its head. While these scholars argue that IP — a mechanism traditionally used to spur innovation — should be used to achieve distributive justice, this Article proposes that policies more directly aimed at attaining distributive justice will not only be more effective, but should also help promote innovation.

**Intellectual property survey: cannabis plant types, methods of extraction, IP protection, and one patent that could ruin it all**
Amanda Maxfield (Ohio State University (OSU), Michael E. Moritz College of Law, Students)

Intellectual property is one of a company’s most valuable assets, at times deserving rigorous time and effort for proper protection. Companies rely on patent, trade secret, trademark and copyright laws to protect their intellectual property. For most businesses, this process is routine and a standard part of their ordinary course of business. Cannabis companies, unfortunately, have many obstacles to overcome to use some of these same protections, as cannabis is considered federally illegal, yet legalized in many states to varying degrees. Cannabis companies must, therefore, be innovative and nuanced in their strategies for protecting their proprietary business information such as patentable subject matter through the use of patents and trade secrets. The method of intellectual property protection is driven by the subject matter. Cannabis growers target specific plant types based on cannabidiol (“CBD”) and delta-9-tetrohydrocannabinol (“THC”) ratios and desired characteristics using specific method of extraction, all of which are patentable if legal elements are met. Unfortunately, while the cannabis industry is an emerging market with plenty of growth ahead of it, an ongoing Colorado
court case involving liquids containing cannabinoids that could result in major negative ramifications for all involved in the cannabis industry.

**Beyond the clouds, Part 1: What cloud contracts say about who owns and can access your content**

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Srishti Joshi (Queen Mary University of London)
Queen Mary School of Law Legal Studies Research Paper No. 315/2019

This paper provides an overview of provisions commonly found in the terms of service (‘ToS’) of consumer cloud services, with a focus on issues of ownership of and access to content and accounts. In December 2018, we surveyed the ToS of 35 services, including storage, messaging, email, and social network services, as well as content services for e-books, music, and video content. We reviewed terms impacting copyright in content uploaded to the cloud service; copyright licence terms for content ‘purchased’ from a cloud provider; and terms affecting users’ rights of access, including assignment and post-mortem access.

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