



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

Methodologies for calculating FRAND damages: an economic and comparative analysis of the case law from China, the European Union, India, and the United States

Anne Layne-Farrar (Charles River Associates; Northwestern University)

Koren W. Wong-Ervin (George Mason University, Scalia Law School – Global Antitrust Institute)

Jindal Global Law School Law Review, Fall 2017

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2985073

In the last several years, courts around the world, including in China, the European Union, India, and the United States, have ruled on appropriate methodologies for calculating either a reasonable royalty rate or reasonable royalty damages on standard-essential patents (SEPs) upon which a patent holder has made an assurance to license on fair, reasonable and non-discriminatory (FRAND) terms. Included in these decisions are determinations about patent holdup, licensee holdout, the seeking of injunctive relief, royalty stacking, the incremental value rule, reliance on comparable licenses, the appropriate revenue base for royalty calculations, and the use of worldwide portfolio licensing. This article provides an economic and comparative analysis of the case law to date, including the landmark 2013 FRAND-royalty determination issued by the Shenzhen Intermediate People's Court (and affirmed by the Guangdong Province High People's Court) in *Huawei v. InterDigital*; numerous U.S. district court decisions; recent seminal decisions from the United States Court of Appeals for the Federal Circuit in *Ericsson v. D-Link* and *CISCO v. CSIRO*; the six recent decisions involving Ericsson issued by the Delhi High Court; the European Court of Justice decision in *Huawei v. ZTE*; and numerous post-*Huawei v. ZTE* decisions by European Union member states. While this article focuses on court decisions, discussions of the various agency decisions from around the world are also included throughout.

Standardization for the digital economy – the issue of interoperability and access under competition law

Bjorn Lundqvist (Stockholm University – Faculty of Law)

Faculty of Law, Stockholm University Research Paper No. 10

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2977242

This article discusses several aspects of the Digital Economy. Firstly, the Intellectual Property landscape of the soon to come Internet of Things is drawn up, discussed and scrutinized, and the current issue

whether non-personal digital data should become a property right, in-itself, is analysed. Secondly, in light of the IP landscape, “pictured” in the first part of the article, the current standardisation efforts for the Digital Economy are discussed, e.g. what are the challenges, and how much should be standardized and how lenient should competition authorities treat pre-standard consortia. Thirdly, current and future competition law issues for the Digital Economy are identified, and lastly the unworkable dichotomy between personal data, non-personal data is criticized. The paper concludes that general competition law may not be readily available for accessing generic (personal or non-personal) Data, except for the situation where the Data set is indispensable to access an industry or a relevant market; while sector specific regulations seem to emerge as a tool for accessing Data held by competitors, third parties and possibly competing ecosystems. However, the main issue under general competition law in the Data industry, at its current stage of development, is to create a levelled playing field by trying to facilitate the implementation of Internet of Things; thus, competition authorities should be cautious about the current consortia driven standard-setting movement in the Digital Economy, when the technology being standardized is not infrastructure type, but rather of upper layer substitute data interoperability technical solutions.

The scoop from Europe: Europe takes on FRAND licensing – again

Patricia Cappuyns (CAPE IP Law – Brussels Office)

Jozefien Vanherpe (CAPE IP Law – Brussels Office)

les Nouvelles - Journal of the Licensing Executives Society, Volume LII, No. 3, June 2017

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2961890

Almost two years ago, on 16 July 2015, Europe’s highest court, the European Court of Justice (CJEU), handed down its much anticipated judgment in the widely publicized Huawei/ZTE saga regarding standards-essential patents (SEPs). The question put before the Court was in what circumstances a SEP owner may seek injunctive relief against an alleged patent infringer without violating EU competition law. Instead of painting a crystal-clear picture, the CJEU’s decision left a number of questions unanswered. This resulted in differing national court interpretations. We discuss two long-running FRAND disputes in more detail and focus especially on the recent UK High Court Decision in the Unwired Planet/Huawei case. Furthermore, on 10 April 2017, the European Commission released a roadmap in which it disclosed its aim of establishing a predictable and proportionate framework for FRAND licensing of SEPs.

With this “Scoop from Europe,” we delve into the issue of FRAND licensing in Europe for the third time already, and the debate is far from over.

Biologics: the new antitrust frontier

Michael A. Carrier (Rutgers Law School)

Carl J. Minniti III (Rutgers Law School)

University of Illinois Law Review, Forthcoming

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2982190

The pharmaceutical industry lies at the intersection of patent law, antitrust law, federal and state regulations, and complex markets. For the past several decades, courts and commentators have analyzed issues presented by brand-name and generic drug companies in the “small molecule” setting. But just as they have begun to comprehend the multiple moving parts, a new frontier has arisen involving large molecules known as “biologics.”

Biologics differ from small-molecule drugs along multiple axes. They are more expensive, costing hundreds of millions of dollars to develop. They cannot be precisely replicated, followed by “biosimilars” rather than generics. They are governed not by the Hatch-Waxman Act but by the Biologics Price Competition and Innovation Act. And they present a blank slate on which issues of innovation and

competition will be hammered out in the decades to come. Given that biologics promise revolutionary advances like treatments for previously incurable diseases and cancer regimens offering substantial benefits over chemotherapy, the stakes could not be higher.

The small-molecule setting has been replete with collusive behavior such as “reverse payment” agreements by which brands and generics settle patent litigation and unilateral conduct by which brands modify their drugs to block generics, file frivolous government petitions, manipulate the regulatory regime, and deny materials generics need to enter the market. How likely are these (or other) forms of conduct to appear in the biologics industry? And if these behaviors occur, how should antitrust law respond? This Article addresses these questions, offering an antitrust framework for the conduct most likely to arise. In particular, it concludes that in the biologics setting, “citizen petitions,” the disparagement of biosimilars, and collusion between biologics and biosimilars will be more frequent and that “product hopping” and reverse-payment settlements will be less typical. The Article also recommends antitrust analysis similar to what courts have applied in the small-molecule setting and modestly more deferential for citizen petitions.

Antitrust finds itself at a unique and crucial moment: poised at the precipice of a new industry but able to draw on decades of case law in an analogous setting that has addressed issues of competition and innovation. It is far from obvious how much courts can—or should—take from that setting. This Article assists in this task by determining which antitrust principles and doctrines should be exported to the biologics setting while appreciating the differences that counsel against such extrapolation. Given the importance of life-saving cancer treatments and an impending \$400 billion market, there is no time to waste.

The common purposes of intellectual property and antitrust: promoting creative and innovative output

Randolph J. May (The Free State Foundation)

Seth L. Cooper (The Free State Foundation)

Perspectives from FSF Scholars, June 6, 2017, Vol. 12, No. 19

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2991609

Intellectual property is a potent and increasingly vital driver of value in America’s Digital Age economy. Indeed, along with the Internet, intellectual property is one of the pillars upon which the Digital Age economy rests.

According to the U.S. Commerce Department’s comprehensive report, “Intellectual Property and the U.S. Economy: 2016 Update,” industries heavily focused on IP “accounted for \$6.6 trillion in value added in 2014,” up more 30% from 2000. Nearly 35% of the U.S. GDP was attributable to IP-intensive industries in 2014. In addition, revenues from licensing IP rights totaled \$115.2 billion in 2012, with 28 different industries deriving revenues from IP licensing. These totals are surely higher in 2017, and they will climb higher still in years to come.

Unfortunately, these substantial public benefits of output-enhancing intellectual property protections and their connection to private rights are frequently overlooked. With the widely acknowledged and quantifiable benefits in mind, along with the broader public purposes served by protection of individual rights in IP, it is instructive to take a closer look at the relationship between antitrust law and IP protection. Some mistakenly suggest they are in conflict. The purpose of this paper is to show how protection of IP rights and enforcement of the antitrust laws not only are compatible but how they reinforce each other.

Injunctions in SEP cases in Europe

Georg Nolte (Panasonic R&D Center Germany GmbH)

Lev Rosenblum (Dorsey & Whitney LLP)

Working paper

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2984193

This paper discusses several public cases from Germany that deal with SEPs and FRAND and have been decided after the CJEU's decision in Huawei v. ZTE. It starts with the patent law system and appeal possibilities in Germany, explains briefly the Orange Book decision, sets out some details of the Huawei decision and explains the questions sent by the Regional Court of Düsseldorf that form the basis of the CJEU decision. The paper also discusses the decisions or orders from the Regional Courts of Düsseldorf and Mannheim as well as the Higher Regional Courts of Düsseldorf and Karlsruhe that followed the Huawei decision. Although many open questions still remain, the Huawei decision has brought quite some clarity to the courts in Germany, setting out when a SEP owner can obtain an injunction while offering a safe harbor for licensees that seek protection from such an injunction. But still it is rather difficult for both parties to predict the outcome of a specific case.

IP & Innovation

Entering a new market: first-mover advantages and risk dynamics under market uncertainty

Christian Riis Flor (University of Southern Denmark)

Mark Raun Moritzen (University of Southern Denmark)

Working paper

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2980245

The perception that first-movers obtain a long-run competitive advantage is pervasive. However, empirical studies find mixed support for the existence of a first-mover advantage. We address this in a dynamic model with heterogeneous firms in which market uncertainty affects firms' investment timing decision. Market uncertainty induces underinvestment and increases the probability of low-quality firms taking the role of first-mover. By decomposing firm value into a first-mover and a quality component we show that first-mover advantages may be both over- and underestimated. Patents mitigate the underinvestment problem but further increase the incentives for low-quality firms to become first-movers. Finally, we show that risk dynamics of first-movers are sensitive to follower entry leading to a run-up in returns. Patents dampen the run-up and create more stable risk dynamics.

The ways we've been measuring patent scope are wrong: how to measure and draw causal inferences with patent scope

Jeffrey M. Kuhn (University of North Carolina (UNC) at Chapel Hill – Management Strategy Area)

Neil Thompson (Massachusetts Institute of Technology (MIT) – Sloan School of Management)

Working paper

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2977273

According to surveys, the top 10% of patents are worth more than a thousand times as much as the bottom 10%. This isn't surprising since a patent's value derives from its ability to exclude rival products from the market, and patents vary widely in their ability to do this. At the same time as there is great variation in the value of patents that do issue, there is almost no variation between patents that are 'just' worth filing and those that aren't – both are nearly worthless. This presents a challenge for innovation scholars, because we have much better tools for measuring whether or not something is patented than we do for how much scope a patent protects. Thus our empirical tools are weakest precisely where they are most important.

This paper presents an easy-to-use measure of patent scope that is grounded both in patent law and in the practices of patent attorneys. Our measure counts the number of words in the patents' first claim. The longer the first claim, the less scope a patent has. This is because a longer claim has more details – and all those details must be met for another invention to be infringing. Hence, the more details there are in the patent, the greater are the opportunities for others to invent around it. We validate our measure by showing both that patent attorneys' subjective assessments of scope agree with our estimates, and that the behavior of patenters is consistent with it. Our validation exercise also allows us to examine the performance of previous measures of patent scope: the number of patent classes, the number of citations made by future patents, and the number of claims in a patent. We find them all to be uninformative (no useful correlation with scope) or misleading (negative correlation with scope).

To facilitate drawing causal inferences with our measure, we show how it can be used to create an instrumental variable, patent examiner Scope Toughness, which we also validate. We then demonstrate the power of this instrument by examining standard-essential patents. We show that an (exogenous) diminishment of patent scope leads to patents being much less likely to be declared standard-essential.

IP & Litigation

Quick decisions in patent cases

Paul R. Gugliuzza (Boston University School of Law)
Georgetown Law Journal, Vol. 106, Forthcoming

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2987289

Patent litigation is notoriously expensive and time consuming. In the past decade, however, patent law has changed in many ways that expedite resolution of infringement disputes. This article identifies and evaluates this trend toward quick decisions in patent cases. Balancing the savings in litigation costs against the potential for error, the article defends many recent and controversial developments, including the Supreme Court's invigoration of the patent eligible subject matter requirement, the new administrative proceedings created by the America Invents Act, and changes in the requirements for pleading patent infringement. These developments permit defendants to obtain rulings of invalidity or noninfringement before discovery begins, which was previously impossible. Pre-discovery rulings cost relatively little and can discourage nuisance litigation. But resolving complex questions of validity or infringement on a thin factual record increases the risk of error, so the article suggests additional reforms to help ensure that quick decisions are also accurate decisions.

The unintended consequences of the injunction law after *Ebay v. Mercexchange*: an empirical study of the effects on injunctions in patent law

CJ Clugston (Keimyung University)

Wonjoon Kim (KAIST; Korea Advanced Institute of Science and Technology)

Journal of the Patent and Trademark Office Society, Forthcoming

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2975661

Good intentions often have unintended consequences. This applies to recent changes in the injunction law in patent cases. Although these changes were intended to alleviate some of the problems caused by patent owners that do not practice their invention, the changes have also unintentionally made it more difficult for patent owners in certain industries to obtain injunctions.

An injunction in patent litigation is generally an order prohibiting the manufacture, use, sale, or importation of any device that embodies the patented technology. As authorized by the Patent Act, courts “may grant injunctions in accordance with the principles of equity.” Outside patent law, the “principles of

equity” traditionally means that an injunction can be granted only if the plaintiff can show that the following four factors, in the aggregate, favored an injunction: (1) irreparable injury, (2) an inadequate remedy at law, (3) a balance of hardships between the parties, and (4) the public interest. However, different standards developed for injunctions in patent cases. In 1982, Congress created the US Court of Appeals for the Federal Circuit (the Federal Circuit), giving it jurisdiction over all patent law appeals. From its inception, this court has instead interpreted the phrase “principles of equity” to mean that injunctions should routinely be granted after a patent was found to be valid and infringed. A denial was appropriate only in “exceptional circumstances.” Indeed, one study found that, prior to 2006, injunctions were granted in over 95 percent of cases. The rationale for this nearly automatic grant of injunctions was that the right to exclude is “the essence” of a patent, and, without an injunction, the value of that right would be significantly diminished. However, because of the increasing number of patent plaintiffs that do not, themselves, practice their invention, many began to question the soundness of this general rule.

These nonpracticing entity (NPE) plaintiffs can come in many forms — an individual inventor who does not have the resources to offer a product or service, a university or research institute that does not have an interest in doing so, or a company whose business model is to earn revenue through licensing, rather than by practicing its invention. Members of the last group are sometimes derisively referred to as “patent trolls” because they are not seen by critics as contributing to the technological development of an industry. Instead, they act like the mythical troll under a bridge, exacting a toll through litigation and licensing on those who do contribute. The advantage of being an NPE is that, because it does not offer a product or service, such a plaintiff cannot be threatened with counterclaims for infringement. This significantly reduces the risks of litigation for these plaintiffs and decreases the chance of a low-cost settlement for a defendant.

This advantage, combined with the once-customary practice of granting injunctions as a matter of course, contributed to the problem of patent holdup. The threat of an injunction, particularly when a defendant had already significantly invested in the potentially infringing product, provided a plaintiff with considerable leverage in negotiations. Because an injunction was likely to be issued after successful litigation of the validity and infringement issues, a defendant that could not negotiate a license was faced with the possibility of having to remove its product from the market until it could design around the patent. The result was often a royalty overcharge; the plaintiff obtained licensing royalties that were significantly more than the true market value of the patented technology. This royalty overcharge was, essentially, a tax on innovation in an industry.

One particularly high-profile example occurred when an NPE brought an infringement action against Research in Motion, the maker of the once-ubiquitous BlackBerry device. This case gained widespread attention because it almost led to the shutdown of all BlackBerry devices. In that case, the jury found the patent was valid and had been infringed and awarded a 5.7 percent royalty, resulting in approximately \$53.7 million in damages. The court also granted an injunction. While the injunction was stayed pending appeal, the parties settled the case for \$612.5 million, eleven times the damages award. This outsize settlement award was attributed to the pending injunction. In response to this and similar cases, the Supreme Court addressed the injunction issue in *eBay v. MercExchange*. In that case, the Court unanimously rejected the “general rule” employed by the Federal Circuit, holding that the four-factor test does apply in patent cases. Commentators consider the *eBay* case a response by the Court to the NTP settlement. This decision was intended, at least in part, to make it more difficult for NPEs to obtain injunctions.

This article empirically evaluates the aftermath of the *eBay* decision, looking at ten years of post-*eBay* injunction decisions. Numerous early studies were conducted to evaluate the effect of the *eBay* decision on NPEs. Although this study confirms the findings in the earlier literature that NPE plaintiffs are significantly disadvantaged, more interestingly, our results reveal that firms in certain industries are likewise granted injunctions at significantly lower rates than other industries that can reduce the innovation incentive in these industries. In the case of NPEs, the innovation incentive is not a problem

because these patent owners merely license their technology for others to exploit, and the primary concern is whether an injunction provides excessive leverage in settlement negotiations. However, for patent owners that do practice their inventions, the reduced likelihood of an injunction can have an impact on the potential value of a patent and thus can materially affect the incentive value of patents.

The article is organized as follows. Part II provides a detailed history of Ebay, following the case from the district court to the ultimate Supreme Court resolution and reviewing the early empirical research on this issue. Part III describes the research methodology and the study's results. Finally, Part IV offers some preliminary conclusions regarding this research.

IP Law & Policy

Why is everyone afraid of IP licensing?

Jonathan Barnett (USC Gould School of Law)

30 Harvard Journal of Law & Technology, Special Symposium: Private Law and Intellectual Property 123 (2016–17)

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2979581

Legal scholars have tended to approach the licensing of intellectual property rights with skepticism, calling for legal intervention to protect the public domain against purported encroachment by IP licensors. Recent decisions by the U.S. Supreme Court are consistent with this view. This skeptical approach overlooks three core efficiencies generated by real-world content and technology licensing markets. First, licensing permits firms to customize supply chains in order to allocate supply-chain functions to the least-cost provider of each function, thereby minimizing total innovation and commercialization costs. Second, licensing permits firms to construct hub-and-spoke formations in which larger downstream firms bear production and distribution risk while smaller upstream originators of creative and technology inputs bear development risk. Third, licensing enables firms to divide innovation assets into sub-assets deployed across multiple parameters in space and time, yielding efficiency and distributive gains in certain circumstances by expanding access across a broad spectrum of valuation intensities. Newly reinvigorated skepticism toward IP licensing preserves formalistic doctrines in IP law that frustrate efficient knowledge transactions or compel firms to adopt second-best mechanisms in order to assemble content and technology inputs for delivery to consumer markets.

Patent trespass and the royalty gap: exploring the nature and impact of patent holdout

Bowman Heiden (Center for Intellectual Property – Chalmers University of Technology, University of Gothenburg, and Norwegian University of Science and Technology)

Nicolas Petit (University of Liege – School of Law; International Center for Law & Economics (ICLE); University of South Australia – School of Law)

Working paper

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2981577

This paper studies the problem of patent holdout. Part I reviews the economic theory of holdout, with a specific emphasis on patents. It shows that the ordinary concept of holdout refers to the non-transacting conduct of a property owner, and that “patent trespass” is a better characterization for technology implementers’ attempt to evade the conclusion of licensing agreements. Part II proposes a definition and provide illustrations of patent trespass. To that end, the paper relies on the qualitative data gathered during interviews with industry stakeholders as well as on an analysis of holdout in case-law. Part III exposes the factors that determinatively make patent trespass transactional, systematic and/or systemic. Part IV records the results of a quantitative study of patent trespass, based on the intuitions that arose from received theory and qualitative interviews as exposed in previous parts. The preliminary empirical results show a correlational link between the nature of patent trespass and the heterogeneity of market

actors and markets. In particular, MNCs operating in developed markets seem to primarily deploy extensive delaying tactics with the main goal of reducing their royalty payments, while large firms in emerging markets (LFE) and small to medium-sized enterprises (SMEs), especially the “long tail” of microvendors, seek to avoid payment altogether.

The uneasy case for patent federalism

Roger Allan Ford (University of New Hampshire School of Law)

2017 Wisconsin Law Review 551

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2988045

Nationwide uniformity is often considered an essential feature of the patent system, necessary to fulfill that system’s disclosure and incentive purposes. In the last few years, however, more than half the states have enacted laws that seek to disrupt this uniformity by making it harder for patent holders to enforce their patents. There is an easy case to be made against giving states greater authority over the patent system: doing so would threaten to disrupt the system’s balance between innovation incentives and a robust public domain and would permit rent seeking by states that disproportionately produce or consume innovation.

There is, nevertheless, an uneasy case that this particular form of patent federalism may be a good thing. The federal patent system has systemic flaws that lead to low-quality patents, nuisance patent litigation, and patent trolls exploiting asymmetric bargaining power. And efforts to address these flaws have faltered, or have had limited effects, due to public-choice dynamics in the patent system, so the scope of patent protections has expanded over time without regard to the system’s purpose of encouraging innovation.

States may help address some of these problems not in spite of, but because of, their own flaws. States have their own public-choice dynamics that happen to offset some of the flaws of the federal system. State anti-patent laws have been driven largely by small businesses and local small-business groups, which, unlike most patent holders, have preexisting influence in state government. And the laws they have crafted using this influence are well-targeted to affect only the most troublesome patent cases: nuisance cases, cases asserting low-quality patents, and cases targeting end users. States pushing back with anti-patent laws, then, may represent an effective second-best solution to the problem of harmful patent assertions. Moreover, recognizing the dynamics that led to these laws may provide helpful insights in designing federal patent reforms.

Copyright Law

European harmonised standards, EU law and copyright

Bjorn Lundqvist (Stockholm University – Faculty of Law)

Faculty of Law, Stockholm University Research Paper No. 11

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2981338

The issue of free and fair access to technical standards is a hot issue. If technical standards, which are being used to interpret or fill in norms in laws and regulations have to be regarded as law, then their content should, according to the general consensus, belong to the public domain. According to several Member States Copyright regimes and general legal thinking, laws and regulations should be publicly accessible free of charge, as only free access complies with basic standards of democracy, rule of law and transparency. If technical standards are not to be regarded as law, but as products of private intellectual creative production, access may have to be paid for, by way of buying a licence or by otherwise paying a price for the product of standardization. Indeed, whether technical standards are law or self-regulation is an issue both of constitutional interest, and of financial importance, and that is the issue which shall be discussed in this paper. The issue shows that it is obvious that the ECJ and the EU

legislator want to both obtain the benefits of self-regulation, while still uphold the possibility of judicial review of standards and standard-setting from Trade Rules and Competition Law perspective. From the recent James Elliott case, we now know harmonised standards forms part of EU law, and may be interpreted by the ECJ, and very likely also scrutinized, under Art 267 TFEU. The question is whether a dichotomy between form, content and authorship can also be applicable in reference to the copyright issue discussed in this paper.

The death of ‘no monitoring obligations’: a story of untameable monsters

Giancarlo F. Frosio (Université de Strasbourg – CEIPI; Stanford Law School, CIS)

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https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2980786

In imposing a strict liability regime for alleged copyright infringement occurring on YouTube, Justice Salomão of the Brazilian Superior Tribunal de Justiça stated that “if Google created an ‘untameable monster,’ it should be the only one charged with any disastrous consequences generated by the lack of control of the users of its websites.” In order to tame the monster, the Brazilian Superior Court had to impose monitoring obligations on YouTube. This was not an isolated case. Proactive monitoring and filtering found their way in the legal system as a privileged enforcement strategy through legislation, judicial decisions and private ordering. In multiple jurisdictions, recent case law has imposed proactive monitor obligations on intermediaries. These cases uphold proactive monitoring across the entire spectrum of intermediary liability subject matters: intellectual property, privacy, defamation, and hate/dangerous speech. In this context, however, notable exceptions—such as the landmark Belen case in Argentina—highlight also a fragmented international response. Legislative proposals have been following suit. As part of its Digital Single Market Strategy, the European Commission, would like to introduce filtering obligations for intermediaries to close a “value gap” between rightholders and online platforms allegedly exploiting protected content. In addition, proactive monitoring and filtering obligations would also feature in an update of the European audio-visual media legislation. Meanwhile, online platforms have already set up miscellaneous filtering schemes on a voluntary basis.

In this paper, I suggest that we are witnessing the death of “no monitoring obligations,” a well-marked trend in intermediary liability policy. Current Internet policy—especially in Europe—is silently drifting away from a fundamental safeguard for freedom of expression online. In this respect, this paper would like to contextualize this trend within the emergence of a broader move towards private enforcement online. The EU Digital Single Market Strategy apparently endorsed voluntary measures as a privileged tool to curb illicit and infringing activities online. As I argued elsewhere, the intermediary liability discourse is shifting towards an intermediary responsibility discourse. This process might be pushing an amorphous notion of responsibility that incentivizes intermediaries’ self-intervention. In addition, filtering and monitoring will be dealt almost exclusively by intermediaries through automatic infringement assessment systems. Due process and fundamental guarantees get mauled by algorithmic enforcement, limiting enjoyment of exceptions and limitations, use of public domain works, and silencing speech according to the mainstream ethical discourse. The upcoming reform—and the border move that it portends—might finally slay “no monitoring obligations” and fundamental rights online, together with the untameable monster.

Music as a matter of law

Joseph Fishman (Vanderbilt University – Law School)

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https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2931091

What is a musical work? Philosophers debate it, but for judges the answer has long been simple: music means melody. Though few recognize it today, that answer goes all the way back to the birth of music copyright litigation in the nineteenth century. Courts adopted the era’s dominant aesthetic view identifying

melody as the site of originality and, consequently, the litmus test for similarity. Surprisingly, music's single-element test has persisted as an anomaly within the modern copyright system, where typically multiple features of eligible subject matter are eligible for protection.

Yet things are now changing. Recent judicial decisions are beginning to break down the old definitional wall around melody, looking elsewhere within the work to find protected expression. Many have called this increasing scope problematic. This Article agrees—but not for the reason that most people think. The problem is not, as is commonly alleged, that these decisions are unfaithful to bedrock copyright doctrine. A closer inspection reveals that, if anything, they are in fact more faithful than their predecessors. The problem, rather, is that the bedrock doctrine itself is misguided. Copyright law, unlike patent law, has never shown any interest in trying to increase the predictability of its infringement test, leaving second comers to speculate as to what might or might not be allowed. But the history of music copyright offers a valuable look at a path not taken, an accidental experiment where predictability was unwittingly achieved by consistently emphasizing a single element out of a multi-element work. As a factual matter, the notion that melody is the primary locus of music's value is a fiction. As a policy matter, however, that fiction has turned out to be useful. While its original, culturally-myopic rationale should be discarded, music's unidimensional test still offers underappreciated advantages over the “everything counts” analysis that the rest of the copyright system long ago chose.

Do Androids dream of electric copyright? Comparative analysis of originality in artificial intelligence generated works

Andrés Guadamuz (University of Sussex)

Intellectual Property Quarterly, 2017 (2)

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2981304

The advent of sophisticated artificial neural networks has opened new artistic opportunities, but also a variety of new legal challenges. Computer programs such as Google's Deep Dream can take an image and process it in manners that resemble biological networks, producing artwork that is both unique and unpredictable.

The law is not unfamiliar with the challenges of artificial intelligence, in the past academics and policymakers have had to deal with the legal implications of autonomous agents in contract formation, just to name one area of interest. However, for the most part the implementation of smart systems has been limited in their reach and scope, and in many instances autonomous agents required quite a lot of direction from the programmer, following a very stringent set of rules. This meant that for the most part all rights, responsibilities and liabilities arising from artificial agents fell squarely on the program creator. Neural networks are different, these systems have the potential to generate works in which human interaction is minimal.

Modern copyright law has been drafted to consider originality as an embodiment of the author's personality, and originality is one of the main requirements for the subsistence of copyright. So, what happens when you remove personality from the equation? Are machine-created works devoid of copyright? Do we need to change copyright law to accommodate autonomous artists? This session will explore this and other questions.

Will robots rule the (artistic) world? A proposed model for the legal status of creations by artificial intelligence systems

Ana Ramalho (Maastricht University)

Working paper

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2987757

While currently artificial intelligence (AI) is not completely independent from human input, the speed and

direction of technology development seem to anticipate a not-so-distant future where it will be. From a copyright perspective, this scenario challenges traditional conceptions, notably that of authorship.

In many jurisdictions, authorship seems to be somewhat connected to the conditions for protection, which might imply that, absent a human author, a work will not be original and therefore not copyrightable. This may leave many works that would otherwise be copyrightable without protection, thereby causing legal uncertainty; but it also raises questions about whether protection should at all be available, and about whether copyright is fit for purpose in face of technological progress in the area of AIS.

The first part of this paper focuses on whether the current copyright framework can accommodate AIS as creators for purposes of copyright protection. To that end, I examine and compare requirements of authorship in Europe, the US and Australia. I then analyse current legal constructions that could accommodate non-human authorship, such as the specific regime of computer-generated works existent in some common law jurisdictions.

The second part of the paper enquires whether copyright should protect AIs as creators. To answer that question, I look into the different rationales of copyright protection.

Building on the data from the previous parts, I propose a model for the legal regime of AIs' creations.

IP & International

TRIPS Agreement flexibilities and their limitations: a response to the UN Secretary-General's High-Level Panel Report on Access to Medicines

Eric M. Solovy (Sidley Austin LLP)

Pavan Krishnamurthy (Sidley Austin LLP)

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Members of the World Trade Organization (“WTO”) must establish minimum standards of patent protection that are consistent with the Agreement on Trade-Related Aspects of Intellectual Property Rights (“TRIPS Agreement”), including for pharmaceutical products. In describing the “flexibilities” accorded pursuant to the TRIPS Agreement, however, the Report of the United Nations Secretary-General’s High-Level Panel on Access to Medicines (“HLP Report”) strays far from principles of treaty interpretation under the Vienna Convention on the Law of Treaties.

While the HLP Report correctly identifies and catalogues a number of flexibilities that are explicitly referenced in the patent provisions of the TRIPS Agreement — such as transitional periods for least developed countries or deference relating to patent exhaustion — the HLP Report finds other flexibilities that are derived only from an improper interpretation of the Agreement. Particularly problematic is the HLP Report’s encouragement of WTO Members to make use of a broad “freedom to determine” — for themselves — the meaning of substantive requirements of patentability in the interests of advancing short term access to existing medicines.

After describing the principles of treaty interpretation, the article outlines the patent-related TRIPS flexibilities and their limitations, including (i) *ex ante* flexibilities, relating to the initial grant of the patent, and (ii) *ex post* flexibilities, relating to the rights conferred to a patent owner. In doing so, the article highlights instances where the HLP Report inappropriately recommends and encourages WTO Members to disregard substantive requirements of the TRIPS Agreement. Finally, the article considers TRIPS-plus protections as an additional “flexibility” available to WTO Members.

Regulatory responses to international patent exhaustion

Sarah Rajec (William & Mary Law School)

Regulatory Responses to International Patent Exhaustion in Research Handbook on Intellectual Property Exhaustion and Parallel Imports (Eds. Calboli & Lee), 2016

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This Chapter first summarizes the argument for international exhaustion. Next it describes the doctrinal landscape in the U.S., showing how the limits of exhaustion doctrine are shaped by concerns about the proper control accompanying a patent right in future market transactions, not about the geographic scope of control. This Chapter addresses both the economic argument against international patent exhaustion and the industry-specific example of pharmaceutical patents. Arguments that rely on the benefits of geographic price discrimination fail to account for other types of price discrimination that are potentially more desirable. In terms of access to medicine, an international exhaustion rule would be superimposed upon a heavily-regulated field. This Chapter concludes by exploring how already-existent regulatory regimes might counteract a rule of international exhaustion in the industry in which its gains are least apparent and its losses potentially gravest.

Compulsory licensing in Peru regarding right to health: defining public interest in light of the Andean Community Legal Framework

Diego F. Ortega (Instituto Nacional de Defensa de la Competencia y de la Protección de la Propiedad Intelectual-INDECOPI)

MIPLC Master Thesis Series (2015/16)

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Decision 486 of the Commission of the Andean Community, establishing the Common Industrial Property Regime, provides for the competence that its Country Members (Peru, Ecuador, Colombia and Bolivia) have in order to grant compulsory licences on patents, being the public interest one of the reasons for the adoption of this measure. However, there is not any harmonization between the Country Members regarding the criteria on the determination of the referred public interest reason. Moreover, the Peruvian government has no experience regarding the issuance of a compulsory licence on the basis of this particular reason.

This situation has brought too much uncertainty to the Peruvian government, which had its most critical moment in 2015 when a draft of Supreme Decree for the declaration of the public interest on a patented antiretroviral drug was presented by the Minister of Health before the Council of Ministers in order to make possible the use of the compulsory licensing system. Ultimately this draft was not approved because the arguments were not strong enough in view of the other Ministers, who thought that the adoption of such a measure would breach the obligations which arise from the international trade agreements subscribed by Peru.

This thesis aims to construe the content of the public interest reason needed for the issuance of a compulsory licence under the light of the Andean Community normativity, particularly addressed to the right to health and its application in Peru. For this purpose, an analysis on the particular wording of Article 65 of the Decision 486 is conducted and also whether there is any additional consideration deductible from Peruvian national legislation. Additionally, it is carried out an assessment over the consistency of the studied public interest reason with the Agreement on Trade-Related Aspects of Intellectual Property, in order to provide a meaning to this reason which is coherent with the obligations under such international instrument. Throughout the analysis it is taken into account how the public interest reason is applied in the other Country Members of the Andean Community.

Other IP Topics

Revisiting racial patents in an era of precision medicine

Jonathan D. Kahn (Mitchell Hamline School of Law)

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In 2006, I published an article examining the rising use of racial categories in biomedical patents in the aftermath of the successful completion of the Human Genome Project and the production of the first draft of a complete human genome. Ten years on, it now seems time to revisit the issue and consider it in light of the current era of “Precision Medicine” so prominently promoted by President Obama in his 2015 State of the Union address where he announced a \$215 million proposal for the Precision Medicine Initiative as “a bold new research effort to revolutionize how we improve health and treat disease.”

In this article I show how the use of race has become normalized and routinized in the U.S. patent process. Just as the election of Donald Trump to the presidency has driven home to many that we do not live in a post-racial era politically, so too does the continuing proliferation of racial patents indicate that we are also not in a post-racial era scientifically. Yet, it is important to understand that the persistence of race in biomedical patents is neither inevitable nor straightforward. As seen from the several examples examined in depth here, the geneticization of race through the patent process remains a relatively contingent and contested phenomenon. As shown in this Article, patent examiners’ responses to the use of racial categories in biomedical patents have varied widely. While in the majority of cases the use of race is not challenged, there are exceptions. Sometimes initial objections have been overcome by simple references to other regulatory authorities, such as the FDA, which appear to be unquestioningly accepted as sufficient to overcome objections. In other cases, a clearly stated objection to the indefiniteness of racial terms has been sufficient to compel an applicant to retreat and withdraw the racial claims.

Developing patent disclosure requirements related to genetic resources and traditional knowledge – key questions

Claudio Chiarolla (UNDP Istanbul Regional Hub)

Burcu Kilic (Public Citizen)

World Intellectual Property Organization (Geneva: WIPO, 2017)

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Modern scientific research and the exploitation of genetic resources and traditional knowledge may offer great benefits to humankind. How can the patent system help scientists, commercial enterprises and civil society at large to realize those benefits while safeguarding the rights and interests of biodiversity-rich countries, and indigenous and local communities?

It has been argued that new patent disclosure requirements related to genetic resources and traditional knowledge are part of the answer, and several countries have already implemented them. But different countries have varying approaches and priorities to this question. Policymakers in each country need to find the right approach for them. If a country decides to introduce new patent disclosure requirements, a key challenge is to establish a coherent legal and policy framework for them, to ensure their balanced and synergetic implementation in the context of national innovation systems. Asking the right questions at the outset should help in this challenging task.

This study from the World Intellectual Property Organization (WIPO) is intended to fill a gap in the

existing literature and so inform policy dialogue, implementation and training in this area. It:

- Reviews, complements and updates existing WIPO resources and research from leading scholars;
- Identifies the key questions that all policymakers need to address in this area;
- Discusses approaches in many different developed and developing countries; and
- Presents policy options in a user-friendly format, with helpful graphics, case studies and further reading.

About the editor

Dr. Anne Layne-Farrar is a vice president in the Antitrust & Competition Economics Practice of CRA. She specializes in antitrust and intellectual property matters, especially where the two issues are combined. She advises clients on competition, intellectual property, regulation, and policy issues across a broad range of industries with a particular focus on high-tech and has worked with some of the largest information technology, communications, and pharmaceuticals companies in the world.

Contact

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

Anne Layne-Farrar
Vice President
Chicago
+1-312-377-9238
alayne-farrar@crai.com

www.crai.com/antitrust
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