



IP Literature Watch

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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

Bundling of RAND-committed patents

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

Michael A. Salinger (Boston University – School of Management)

Working Paper

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2585528

We assess the implications of the literatures on bundling and tying and on patent bundling in particular for whether a company that makes a RAND (reasonable and non-discriminatory) commitment on a patent may license that patent only in a bundle with patents on which it has not made a RAND-commitment. Patent bundling/tying is a common practice that often has sound efficiency justifications, but forcing a licensee to accept a license on a patent it does not want to obtain a RAND-committed patent that it does want can be a way of circumventing the RAND-commitment. Mixed bundling, where the licensor offers licensees the option of taking a license to RAND-committed patents only or taking a license to the full portfolio, is the most straightforward solution. However, we argue that a licensor can nonetheless offer a RAND-committed patent only in a bundle with patents on which it has not made a RAND-commitment, provided that the royalty would be RAND for the RAND-committed patents alone. The patent owner cannot deduct the value of non-RAND-committed patents from the license fee from the bundle and argue that it has honored its RAND-commitment as long as the difference is RAND for the RAND-committed patents.

Federalism, First Amendment & patents: the fraud fallacy

Robin Feldman (University of California Hastings College of the Law)

Columbia Science and Technology Law Review, Forthcoming

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2616519

Few arguments echo as strongly throughout United States constitutional history as those related to the role of the states in the federal union. Shifting across time, the role of the states in general has moved

from a model of dualism — characterized by a strict separation of federal and state dominion — to a model of overlapping and concurrent powers. In the modern context of overlapping powers, the preemption doctrine manages the intricate areas of overlap, with topics ranging from antitrust to immigration.

Yet the concept of federalism, as applied by the circuit courts in relation to patents, has traveled far from its roots. Using weak foundational logic, the courts have taken concepts intended to protect citizens from the chilling effects of antitrust law and stretched them to conclude that states may not pass laws related to behavior with patents, unless that behavior relates to remediation of fraud. If allowed to flourish, this fraud fallacy would prevent state laws from affecting a wide range of behavior, from transparency, to disclosure, to protection against pressure sales.

Most important, the theory applied to patent preemption questions threatens to bleed into a wide range of preemption issues, as well as to issues related to corporate speech. From this perspective, the fraud fallacy, and its wide-ranging language, threaten to have a lasting effect on the ability of state law to reflect and respond to local democratic demands, as well as even the federal government ability to legislate effectively.

US Court upholds antitrust action against patent troll

Michael A. Carrier (Rutgers University School of Law – Camden)

e-Competitions Bulletin, No. 73428, May 2015

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2617200

On March 2, 2015, Judge Paul W. Grimm of the U.S. District Court for the District of Maryland offered a wide-ranging analysis of antitrust claims against the conduct of famous “patent troll” Intellectual Ventures (IV). IV sued Capital One for patent infringement, Capital One sought to amend its Answer and Counterclaims to add antitrust counterclaims, and, in this opinion, Judge Grimm allowed this amendment. The opinion in *Intellectual Ventures v. Capital One* is important for three primary reasons.

The first involves market definition. The court defined the relevant market narrowly to cover only IV’s patent portfolio. In moving “upstream” to patents, such a maneuver is not constrained by the limits of customer demand and whether products can be substituted in a “downstream” product market.

The second development centers on predatory monopolization conduct. The court plowed new ground in finding monopolization based on the acquisition of a patent portfolio. It distinguished between a “bona fide” patent acquisition and IV’s process of working backwards from product to patent, locating companies with sunk product investments and then suing them for patent infringement.

Third, the court resuscitated the oft-criticized *Brown Shoe* case and its incipency standard. The court offered just such a framework in asserting that “it may be that Plaintiffs’ first 10, or 100, or 1,000 patent acquisitions did not violate § 7,” but that “at some point, the acquisitions...created a monopoly and crossed the line to actionable under § 7.”

In short, the decision in *Intellectual Ventures v. Capital One* offers an aggressive roadmap for the antitrust analysis of patent trolls. This court can provide more guidance as the case goes forward, as the framework promises to have a significant effect on patent trolls, particularly in their acquisition and use of patent portfolios.

IP & Innovation

Ready for patenting

Mark A. Lemley (Stanford Law School)

Working Paper

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2613696

Patent law has tried to find a middle ground between a vision of invention as a mental act and a competing vision that focuses on the actual building of a working product. The definition of invention in the 1952 Patent Act incorporates both conception and reduction to practice, sometimes choosing the first to conceive as the inventor and at other times choosing the first to reduce an invention to practice. But in trying to walk that middle ground, patent law has actually discouraged inventors from getting their inventions to work in practice, rewarding those who run to the patent office before they are fully done with the invention and giving them precedence over those who take the time to make sure their invention works by building and testing it. The problem is even worse under the new America Invents Act passed in 2011, which encourages patentees to file their applications as soon as possible.

The fact that the law encourages inventors to file first and figure out later how (or even if) the invention works for its intended purpose is unfortunate. It produces underdeveloped patent applications that do not communicate useful information to the world. It facilitates the rise of patent trolls who obtain patents but never bother to produce a product, instead making a business of suing those who do. And it pushes people to patent things just in case, adding more patents into a system already overburdened with them.

I reject proposals to go to the opposite extreme, requiring patentees to make products. But we should not be in the position in which we currently find ourselves: treating inventors less favorably if they try to build and test their inventions. In this paper, I offer some thoughts on ways we might seek to protect inventors who actually decide to build and test their products.

Intellectual property rights and innovation: evidence from health care markets

Heidi L. Williams (MIT Department of Economics; NBER)

NBER Working Paper No. w21246

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2615652

A long theoretical literature has analyzed optimal patent policy design, yet there is very little empirical evidence on a key parameter needed to apply these models in practice: the relationship between patent strength and research investments. I argue that the dearth of empirical evidence on this question reflects two key challenges: the difficulty of measuring specific research investments, and the fact that finding variation in patent protection is difficult. I then summarize the findings of two recent studies which have made progress in starting to overcome these empirical challenges by combining new datasets measuring biomedical research investments with novel sources of variation in the effective intellectual property protection provided to different inventions. The first study, Budish, Roin, and Williams (forthcoming), documents evidence consistent with patents affecting the rate and direction of research investments in the context of cancer drug development. The second study, Williams (2013), documents evidence that one form of intellectual property rights on the human genome had quantitatively important impacts on follow-on scientific research and commercial development. I discuss the relevance of both studies for patent policy, and discuss directions for future research.

IP & Litigation

Ongoing royalties in patent cases after eBay: an empirical assessment and proposed framework

Christopher B. Seaman (Washington and Lee University School of Law)

23 Texas Intellectual Property Law Journal 203 (2015)

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2617789

The Supreme Court's landmark decision in *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 288 (2006), significantly changed the remedial landscape for patent owners, holding that a permanent injunction would not automatically follow a finding that an asserted patent was infringed and not invalid. As a result, a substantial number of prevailing patentees have been denied the ability to exclude future acts of infringement. eBay's impact is perhaps most acute for patent assertion entities ("PAEs") — firms that own, license, and assert patents in litigation, but do not themselves directly practice the patented technology — who rarely can satisfy eBay's four-factor test.

In eBay's wake, the Federal Circuit has approved an alternative prospective remedy called an ongoing royalty. But despite lower courts' increasing use of this remedy, numerous questions about the structure and methodology for determining an ongoing royalty remain unresolved. This Article addresses the issue of ongoing royalty awards from both an empirical and doctrinal perspective. First, it reports the results of an original empirical study regarding ongoing royalty awards by district courts since eBay. Second, it proposes a new framework for computing an ongoing royalty that requires consideration of actual or anticipated changes to the relevant product market, as well as potential future alternatives to the patented technology, in determining the amount of an ongoing royalty award.

The new plague: false claims liability based on inequitable conduct during patent prosecution

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Fordham Intellectual Property, Media & Entertainment Law Journal, Vol. 25, No. 4

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2618628

In January 2009, Amphastar Pharmaceuticals filed a first of its kind qui tam suit on behalf of the federal government and several states alleging that its competitor, Aventis Pharma, violated the Federal False Claims Act (FCA) when it fraudulently acquired a patent and then overcharged the government for its patented drug. By utilizing a fraudulently acquired patent to elevate the price of Lovenox, a drug for treating deep-vein thrombosis, Amphastar alleged that Aventis had overcharged the government for every Lovenox pill purchased with government funds, including all prescriptions funded in part by Medicare or other federal insurance programs. The FCA provides a means for litigants to pursue recovery for fraud perpetrated against the federal government. In its complaint, Amphastar alleged that Aventis obtained its patent by engaging in inequitable conduct during prosecution of its patent application before the United States Patent and Trademark Office. Our analysis of FCA claims based on this novel inequitable-conduct theory concludes that a patentee could be liable for violating the False Claims Act if (1) the government purchased the patented product, (2) the prices of that product were in fact elevated because of the exclusivity provided by the fraudulently obtained patent, and (3) the patentee knew, deliberately ignored, or showed reckless disregard in deciding to submit a claim for payment from the government at this elevated price. If the court in Amphastar finds Aventis liable under this novel theory,

the consequences could be far-reaching. Given the nature of modern patent litigation, with inequitable conduct defenses being nearly ubiquitous, such a ruling could expose nearly every patent holder that does business with the federal government to possible liability under the FCA.

This Article discusses the implications of bringing FCA claims based on an inequitable-conduct theory, explores the rationale behind invoking the FCA in this context, and suggests precautions that practitioners can take in such lawsuits. It proposes a variety of reforms to the False Claims Act to check the problems caused by these types of FCA claims. These proposals may become more relevant after the resolution of the *Amphastar* case if the court validates *Amphastar's* novel theory and others follow suit in bringing FCA claims against pharmaceutical patent holders.

Patent assertions: are we any closer to aligning reward to contribution?

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Working Paper

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2613189

The 2011 America Invents Act was the most significant reform to the United States patent system in over fifty years. However, the AIA did not address a number of major problems associated with patent litigation in the United States. In this paper, we provide an economic analysis of post-AIA developments relating to Patent Assertion Entities (PAEs) and Standard-Essential Patents (SEPs). For PAEs and SEPs, we examine the alignment, or lack of alignment, between the rewards provided to patent holders and their social contributions. Our report is mixed. Regarding PAEs, we see significantly improved alignment between rewards and contributions, largely due to a series of rulings by the Supreme Court. Legislation currently under consideration in Congress would further limit certain litigation tactics used by PAEs that generate rewards unrelated to contribution. We also see some notable developments relating to SEPs, especially with the recent reform to the patent policies of the IEEE, a leading Standard-Setting Organization (SSO) and with several recent court decisions clarifying what constitutes a Fair, Reasonable and Non-Discriminatory (FRAND) royalty rate. However, other steps that could better align rewards with contributions on the SEP front have largely stalled out, particularly because other major SSOs do not seem poised to follow the lead of the IEEE. Antitrust enforcement in this area could further improve the alignment of rewards and contributions.

IP Law & Policy

The supreme assimilation of patent law

Peter Lee (University of California, Davis – School of Law)

UC Davis Legal Studies Research Paper No. 435

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2616412

Although tensions between universality and exceptionalism apply throughout law, they are particularly pronounced in patent law, a field that deals with highly technical subject matter. Focusing on this tension, this Article explores an underappreciated descriptive theory of recent Supreme Court patent jurisprudence. Commentators observe that the Court has reined in expansive Federal Circuit patent doctrine and established holistic standards to replace bright-line rules. This Article augments these prevailing interpretations by exploring another. Building upon and significantly extending previous scholarship, it argues that the Supreme Court's recent patent jurisprudence reflects a project of

eliminating “patent exceptionalism” and assimilating patent doctrine to general legal principles. In a variety of areas including appellate review of lower courts and agencies, jurisdiction, remedies, and the award of attorney’s fees, the Federal Circuit has developed rather exceptional doctrine for patent cases. However, the Supreme Court has consistently eliminated such exceptionalism, bringing patent law in conformity with general legal standards. Among other observations, the Supreme Court’s intervention reveals its holistic outlook as a generalist court concerned with broad legal consistency, concerns which are less pertinent to the quasi-specialized Federal Circuit. The Article concludes by arguing in favor of selective, refined exceptionalism for patent law. Although the Supreme Court should strive for broad consistency, this Article argues that unique features of patent law — particularly the role and expertise of the Federal Circuit — justify some departure from general legal norms. Finally, this Article turns to tensions between legal universality and exceptionalism more broadly, articulating principles to guide the deviation of specialized areas of law from transcendent principles.

Intellectual property and trade in a post-trips environment

Henning Grosse Ruse-Khan (University of Cambridge – Faculty of Law; Max Planck Institute for Innovation and Competition)

Forthcoming in H Ullrich, R Hilty, M Lamping, J Drexler, TRIPS plus 20 - From Trade Rules to Market Principles, Springer (2015)

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2610576

In the 1980s, significant differences in the levels of intellectual property (IP) protection around the globe triggered unilateral responses of the US as the key demandeur for stronger IP rights. Aspects of this unilateralism in turn served as a trade barrier for the importation of goods from other countries into the US. Some of these US measures were successfully challenged as a breach of international trade rules under GATT. The WTO TRIPS Agreement then created common standards for IP protection and enforcement, including some binding rules on IP as a barrier to trade that were motivated by the pre-TRIPS experiences. Against this background, this paper questions whether the rules in TRIPS and GATT are still adequate to deal with today’s reality of IP protection and enforcement in and beyond the trade context. This reality is increasingly framed by unilateral, bilateral and regional standards of IP rule-making that go beyond the multilateral norms found in TRIPS and create an increasingly fragmented system of “TRIPS-plus” protection and enforcement of IP rights around the globe.

My core argument is that the uncoordinated expansion of TRIPS-plus rules increasingly serves as a barrier to global trade. This in turn begs the question whether the WTO rules on IP (TRIPS) and those on trade in goods (GATT) are still fit to operate in such a changed environment and can provide for adequate safeguards against trade barriers based on uncoordinated expansion of IP protection and enforcement. My proposed answer is that for TRIPS and GATT to fulfil this function, they have to be applied in a way which facilitates harmonized, global maximum standards or ceilings for IP protection and enforcement as a necessary counterpart to the familiar minimum standards. These ceilings do exist in GATT and TRIPS, but have been under-used in the first 20 years of the WTO. I suggest that there are indications and good reasons for relying on them more extensively in an effort to mitigate the trade barriers resulting from uncoordinated expansion of TRIPS-plus rules in the last 15 or so years. In addition, in an ideal world, we would be aiming to introduce multilaterally agreed, more specific ceilings ensuring that reasonable limits to IP rights are available on a global scale.

Intellectual property law harmonization within and beyond Europe: achievements and future challenges

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Maurizio Borghi (Bournemouth University – Centre for Intellectual Property Policy & Management)

Working Paper

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2613515

This essay discusses the process of harmonization of the legislation impacting on intellectual property rights at international level and within the European Union. To this end, after an up-to-date account of the international treaties applicable within the EU and of the European Directives and Regulations on various domains, such as copyright and related rights, patents and utility models, design, trademarks, geographical indications, etc., the paper preliminarily suggests hurdles and perspectives of a global IP harmonization. The essay concludes that whilst world-wide IP rights are not an easy target, they are nonetheless an obligatory choice, especially in some wide-ranging areas of Intellectual Property.

Intellectual property and biofuels: the energy crisis, food security, and climate change

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Mike Lloyd (Griffith Hack)

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Working Paper

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2610985

In light of larger public policy debates over intellectual property and climate change, this article considers patent practice, law, and policy in respect of biofuels. This debate has significant implications for public policy discussions in respect of energy independence, food security, and climate change. The first section of the paper provides a network analysis of patents in respect of biofuels across the three generations. It provides empirical research in respect of patent subject matter, ownership, and strategy in respect of biofuels. The second section provides a case study of significant patent litigation over biofuels. There is an examination of the biofuels patent litigation between the Danish company Novozymes, and Danisco and DuPont. The third section examines flexibilities in respect of patent law and clean technologies in the context of the case study of biofuels. In particular, it explores the debate over substantive doctrinal matters in respect of biofuels – such as patentable subject matter, technology transfer, patent pools, compulsory licensing, and disclosure requirements. The conclusion explores the relevance of the debate over patent law and biofuels to the larger public policy discussions over energy independence, food security, and climate change.

Copyright Law

Of kookaburras and men (at work): copyright infringement in musical works revisited

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Working Paper

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2618945

The untimely death of Men at Work instrumentalist, Greg Ham in April 2012 appeared to provide a tragic

coda to the long running copyright infringement litigation between music publishers, Larrikin Music and band members Colin Hay and Ronald Strykert and their record company, EMI. The resolution of Larrikin Music's claim has not however, stilled the debate over the appropriate boundary of copyright protection in the context of musical works. Rather, it has re-ignited a wide ranging debate over the proper use of copyright protection in the musical realm in the face of technological advancements and increasingly creative uses of musical phrases in other works, particularly those that employ digital sampling techniques, in mash ups and for creative remixing in both a live, DJ environment and in recording studios.

Those discussions highlight the troubling implications for composers and musicians in the fallout from the Larrikin decisions. More fundamentally perhaps, the substance of the determinations in the litigation saga raise a number of questions on issues that are crucial to a musical copyright infringement enquiry – what does “original” mean in respect of a musical work?; what is the appropriate procedure for determining infringement in respect of musical works?; and what comparisons are relevant to a consistent understanding of substantial similarity in the musical context?

Copyrights without limits: the undefeatable right of access control under §1201(A) of the Digital Millennium Copyright Act

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Marquette Intellectual Property Law Review, Vol. 19, No. 2, 2015

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2613703

The law of unintended consequences is inescapable. Although the criticism of the Digital Millennium Copyright Act (“DMCA”) reached a height more than a decade ago, the damaging effects this law has on innovation continues to this day. Section 1201 of the DMCA contains prohibitions on the use of and trafficking in technologies that “effectively control[] access to work[s]” protected under the Copyright Act (the “anti-circumvention provisions”). In a commendable effort to hedge against their own inability to foresee changes in the landscape of technology, Congress created a power in the Librarian of Congress (“LOC”) to establish exemptions to the DMCA’s anti-circumvention provisions every three years. However, such a grant of power only underscores how well Congress is aware that the DMCA could hinder innovation and consumer choice, and how that body is consequently forced to play defense against the negative effects of the law. Congress is forced to consider and ratify the selective exemptions that the LOC chooses to make regarding who should be exempted.

A recent controversy involving this section of the DMCA is responsible for the Unlocking Consumer Choice and Wireless Competition Act (“Consumer Choice Act”), signed into law by President Obama. Starting in 2006, the Copyright Office recognized an exemption to §1201 that would allow for consumers to unlock their cellphones — a process by which an individual purchaser would be able to take a phone purchased, for instance, at an AT&T store and use it on Verizon’s network. This exemption was renewed in 2010, but in 2013 the Copyright Office refused to renew it again. When the exemption was lost, a petition was created that fetched over 114,000 signatures in favor of allowing cell phone unlocking.

The Consumer Choice Act was the result of coordination between the “FCC, industry, and Congress,” and allowed consumers “to use their phones or mobile devices on any network they choose.” This law enshrines the previously retracted exemption that allows users of cell phones to unlock their devices without running afoul of §1201 of the DMCA. Thus, the legislation officially recognizes a practice that should have arguably never been proscribed by copyright law. No actual copyright infringement was at issue when users simply wanted to use their cellphones on different networks. The DMCA, in this case, was merely a set of handcuffs locking consumers into a particular consumption pattern preferred by device manufacturers and network carriers. Moreover, this one fairly narrow, mundane issue —

consumer choice in the use of cellphones — hints at the untold existence of other possible alternate uses of devices and technologies that are kept from the market because of fears that they won't pass muster under §1201.

However, the focus on what exemptions the LOC will recognize, and when Congress will fully authorize them by statute, is something of a sideshow — at least when judged against the entire framework of §1201 and certain defects therein. In the jurisprudence surrounding the DMCA, there yet remains a circuit split regarding important implications of new property rights arguably, and accidentally, created in the anti-circumvention provisions. Thus, the viability of this law as it is sometimes being applied is far from certain until it reaches the Supreme Court.

Section 1201(a) specifically forbids the circumvention of technological protection measures (“TPM”) that effectively control access to a work protected under the Copyright Act. By contrast, §1201(b) prohibits trafficking in devices that enable third parties to circumvent TPMs that effectively protect a right of a copyright holder guaranteed under the Copyright Act. Therefore, §1201(a) appears to provide a cause of action when someone merely circumvents a protection measure, regardless of whether a particular right of a copyright holder is violated, whereas §1201(b) requires that the measure in question actually be in service of protecting a right granted under the Copyright Act.

The Federal Circuit has held that §1201(a), despite its broad language, could not reasonably be read to mean that it was forbidden to circumvent a TPM, when that measure has no connection to an actual right guaranteed under the Copyright Act. In the view of the Federal Circuit, without a nexus between circumvention and the infringement of a right, §1201(a) would create a nearly unbounded new property right that extends far beyond the scope of what one would consider a copyright.

By contrast, the Ninth Circuit believes that the plain language of the text of §1201(a), coupled with certain readings of the legislative history, compel it to recognize a broad access control right. In reaching its holding, the Ninth Circuit acknowledged the arguments underlying the Federal Circuit's opinion, and dismissed them as mere policy considerations.

This Paper examines the tensions between these two positions. Much of the reasoning in both opinions turned on statutory interpretation techniques, with each court relying on a different set of suppositions regarding how best to interpret §1201. Ultimately, this Paper will take the position that the Federal Circuit is on the better constitutional and statutory interpretation ground for various reasons, and that the Supreme Court should see §1201 as requiring an infringement nexus.

IP & Asia

India's tryst with pharma patent settlements: whether a turbulent decade of litigations would give way to meaningful compromises?

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The WIPO Journal, (2015) 6 *W.I.P.O.J.*, 165

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2617651

Ever since India fully implemented the Trade Related Aspects of Intellectual Property Rights (TRIPS) Agreement it witnessed a flurry of patent related disputes in the pharmaceutical sector. As many of the patent litigations are yet to reach any final conclusion one practice which is slowly evolving amongst the litigating parties is the settlement of disputes through negotiation or mediation. At the same time this

practice has triggered concerns of anti-competitive conduct between such parties which in turn has forced India's competition regulator the Competition Commission of India to contemplate a scrutiny of such settlements. The focus of this article will be to examine the evolving trend amongst litigating parties to settle the patent disputes and the impact this may have on public interest by highlighting the international practices followed in leading jurisdictions like US and EU along with leading case-laws.

Other IP Topics

The USPTO historical patent data files: two centuries of innovation

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Steven Jackson (United States Patent and Trademark Office; Department of Transportation)

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USPTO Working Paper

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2616724

Patent classification systems are largely designed for administrative purposes, limiting their value for most research purposes. To address this deficiency, Hall, Jaffe, and Trajtenberg (2001) developed a higher-level classification for the National Bureau of Economic Research (NBER) Patent Citation Data File by aggregating U.S. Patent Classification (USPC) classes into six economically relevant technology categories (and 37 sub-categories) and classified granted patents accordingly. While this classification scheme has proved useful for researchers investigating US patent grants, comparable information on pending or abandoned patent applications has been unavailable for several reasons. We apply the NBER sub-categories to published and publicly-available unpublished patent applications as well as in-force and expired patents to create the USPTO Historical Patent Data Files, four research datasets containing time series and micro-level data by NBER sub-category. These new datasets comprise annual information on patent applications, patent grants, and patents-in-force dating back to 1840. Additionally, we provide information on the monthly stocks and flows of utility patent applications and grants from 1981 to 2014. Our hope is that researchers will make use of the data files for primary analysis or as controls for other projects. These data, for the first time, provide for detailed study of patent application disposal and the complex dynamics between new filings, pendency, and abandonment. Historical data enable researchers to put into context recent trends in patenting activity, litigation, and technological change.

Patent strategies of technology startups: an empirical study

Celia Lerman (Universidad Torcuato Di Tella)

Working Paper

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2610433

How does a patent strategy affect a tech startup company's growth? This is a fundamental question for technology entrepreneurs, investors, lawyers and the innovation system as a whole. In this study, I shed light on this issue by conducting an empirical analysis of the patenting strategies of technology startups, examining the relationship between a company's patent applications and different events over the company's life: rounds of investment received, company acquisition and closure. I provide the first comprehensive cross-industry analysis of this question, by analyzing the patent portfolios of United States startups listed in CrunchBase, a crowd-sourced registry of tech companies used by the startup industry. By looking into these companies' public patent applications from the United States Patent and Trademark Office (USPTO) database between 2008 and 2012, I examine the patenting patterns of startups as they progress through funding rounds.

Through a quantitative analysis, I find that companies based in California tend to patent more than in other states, and that companies that are venture-backed patent more than those who are not. I also unveil that most start-ups that patent file their first application before even receiving any reported funding. Moreover, I find that there is a significant positive relationship between patent protection, and receiving investment and being acquired. I further find that the number of patents (and not merely the fact that a company has patents or not) contributes to higher total funding. I finally observe that patenting early is also associated to higher funding, and that early may be more important for start-ups than what some views in venture capital may predict. I also conclude that while more patents are associated with higher funding, patents account for a relevant but small portion of a company's success.

The study provides novel insights on startup patenting strategies. It lays empirical groundwork on key circumstances under which patents can contribute to a startup's growth, to provide important guidance to the legal and entrepreneurial communities.

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.

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