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**

### An empirical examination of patent hold-up

Alexander Galetovic (Universidad de los Andes)  
Stephen Haber (Stanford University – Hoover Institution and Political Science)  
Ross Levine (UC Berkeley; Milken Institute; NBER)  
*Working Paper*  

A large literature asserts that standard essential patents (SEPs) allow their owners to “hold up” innovation by charging fees that exceed their incremental contribution to a final product. We evaluate two central, interrelated predictions of this SEP hold-up hypothesis: (1) SEP-reliant industries should experience more stagnant quality-adjusted prices than similar non-SEP-reliant industries; and (2) court decisions that reduce the excessive power of SEP holders should accelerate innovation in SEP-reliant industries. We find no empirical support for either prediction. Indeed, SEP-reliant industries have the fastest quality-adjusted price declines in the U.S. economy.

### IP and other regulations

Mark A. Lemley (Stanford Law School)  
*Working Paper*  

Intellectual property (IP) is a form of regulation. Once we understand IP laws as government social policies that seek to alter market outcomes, we can start to think of those laws as part of a broader tapestry of government rules that affect innovation in a complex variety of ways. Sometimes governments encourage innovation by rewarding it. Sometimes they encourage innovation by restricting market entry, giving incumbents supracompetitive returns by insulating them from competition. IP does both of these at various points.

Market-entry regulation is a troubling way to encourage innovation, because in many cases it is competition, not monopoly, that drives technical progress. But a third type of regulation can actually open rather than close markets, and offers the prospect of encouraging innovation not by impeding competition...
but by encouraging it. Antitrust and net neutrality may fit within this last category.

**Muzzling antitrust: information products, innovation and free speech**

Hillary Greene (University of Connecticut School of Law)

*Boston University Law Review, Vol. 95, No. 1, 2015*


How well does the American legal system balance the diverse values society espouses? Courts must often navigate values that are not consistent, commensurate, or subject to ordinal ranking. This article examines the confluence of incommensurate values within the important context of antitrust challenges to information product redesigns (e.g., Google, Nielsen).

The information economy has given rise to the emergence of powerful firms in the business of information products. Some of these firms have had product redesigns challenged as anticompetitive. This article examines two defenses to these challenges. First, the products constitute protected speech and should be immunized entirely from antitrust scrutiny. Second, the product changes embody procompetitive innovations and, therefore, are not anticompetitive.

When addressing antitrust challenges to search engine modifications, for example, the courts must account for free speech — a value exogenous to antitrust — as well as competition and innovation, two goals often considered in tandem within an antitrust framework focused on consumer welfare. Navigating speech and consumer welfare considerations presents a classic incommensurability problem. Moreover, even competition and innovation have proven to be largely incommensurate in practice, notwithstanding their shared consumer welfare orientation.

Despite antitrust’s ostensible facility with more nuanced tradeoffs, the courts have been largely unwilling or unable to transcend binary “all-or-nothing” outcomes when either speech or innovation-based defenses are implicated. When those product redesigns are decidedly incremental and arguably anticompetitive, the application of all-or-nothing legal standards provides inadequate protections for the underlying First Amendment rights and competition policy values at stake. This article explains why legal middle grounds, while potentially difficult, can and must be established to deal with speech and innovation.

**Resolving reverse-payment settlements with the smoking gun of stock price movements**

Thomas G. McGuire (Harvard Medical School – Department of Health Care Policy)
Keith Drake (Greylock McKinnon Associates)
Einer Elhauge (Harvard Law School)
Raymond S. Hartman (Greylock McKinnon Associates)
Martha Starr (American University – Department of Economics)

*Iowa Law Review, Vol. 81, No. 4, 2016, Forthcoming*


The Supreme Court recently held that in reverse payment settlements of drug patent disputes, anticompetitive effects can be inferred if the reverse payment exceeds the patent holder’s anticipated litigation costs, absent some offsetting justification. Application of this standard is problematic because defendants usually (a) obscure the amount of the reverse payment and (b) claim their settlement was justified by risk aversion. Further, even if a net reverse payment can be proven, it is little help in estimating the period of delay or damages. This Article offers another type of evidence that demonstrates and quantifies anticompetitive effects. An otherwise unexplained bump in the patent holder’s stock price shows that the settlement created new future profits by extending the period without generic competition beyond what the stock market expected. The stock market test has several advantages: it rebuts the risk aversion claim (which cannot explain the stock price rise); it more effectively (though still conservatively) captures damages than the magnitude of the reverse payment; and, finally, it relies on the behavior of objective traders rather than deal makers with well-understood incentives to obscure the presence of a payment. We conduct a stock market event study on one of the early instances of a reverse-payment
settlement to illustrate how the method works.

Patent assertion entities and antitrust: a competition cure for a litigation disease?
Joshua D. Wright (Federal Trade Commission; George Mason University School of Law)
Douglas H. Ginsburg (U.S. Court of Appeals for the District of Columbia Circuit; George Mason University School of Law)

PAEs have been much in the news because of certain practices that imply their demand for royalties is nothing more than extortion based upon the nuisance value of a lawsuit the PAE might bring, or explicitly threatens to bring, if no agreement is reached with the party practicing the patent. The PAE phenomenon has prompted suggestions that the antitrust laws be applied to limit the effect that PAEs have upon innovation by the companies most affected, typically those in the high-tech sector.

We conclude there is no evidence at this point that PAEs create a new or unique antitrust problem, that their business model warrants more or less scrutiny than others as a matter of antitrust analysis, or that competition enforcement agencies would be coming to the aid of consumers by devising creative extensions of or departures from the standard antitrust framework in order to address PAEs’ conduct and business arrangements. If and when PAEs present legitimate antitrust problems by acquiring or otherwise creating market power to anticompetitive ends, which is certainly possible, the standard antitrust framework is fully capable of reaching that conduct and providing adequate remedies.

This is not to say some activities of PAEs are not problematic or do not call for law reform insofar as PAEs are exploiting aspects of the litigation system to extract settlements based not upon the merits of their claims but rather upon the cost of defending against them. The rise of PAEs, however, does not mark the first time lawyers have found a way to profit from bringing or threatening to bring cases purely for their settlement value. Indeed, this has been a recurring problem, though it has arisen in a variety of otherwise unrelated types of litigation.

Therefore, we suggest caution before changing substantive antitrust standards or enforcement policies to reach PAEs rather than proceeding upon the reasonable premise that the inefficiencies associated with PAEs are the result of a litigation problem.

IP & Innovation

Competition and innovation: did Monsanto’s entry encourage innovation in GMO crops?
Petra Moser (Stanford University – Department of Economics; NBER)
Paul Wong (Stanford University – Department of Economics)
Working Paper

In 1996, the chemical firm Monsanto bought a plant breeder that had developed a new corn hybrid, which could withstand Monsanto’s powerful herbicide Roundup. Due to the pre-existing structure of the US plant-breeding industry, this acquisition and Monsanto’s acquisition of five other corn breeders meant that Monsanto had also entered soy breeding, in addition to corn. As a result, the market structure of the soy industry shifted from a quasi monopoly (by Pioneer Hi-Bred) to a duopoly with a competitive fringe. At the same time, Monsanto’s acquisitions created no significant change in the market structure for other crops, such as wheat or cotton. New data on field trials enable us to investigate the effects of these changes on innovation. These data indicate that Pioneer innovated less in response to Monsanto’s entry. Field trial data also show that the competitive fringe innovated less after Monsanto entered. Data on patent applications, however, indicate that Pioneer and the competitive fringe patented more, after Monsanto entered.
The 'creating around' paradox
Dan L. Burk (University of California, Irvine School of Law)

In his article on Creating Around Copyright, Joseph Fishman argues that the constraints imposed by copyright law promote the creativity of subsequent follow-on authors. He suggests that by limiting creative choices, copyright exclusivity may actually enhance the output of follow-on authors by requiring them to “create around” existing works. Yet embedded in Professor Fishman’s theory is a paradox that threatens to disable the putative benefits of creating around. Specifically, the conditions that are necessary for creating around are the same conditions that we would expect to lead to licensing of previously existing works, rather than to the creation of new ones. In other words, it appears that creating around can only occur when we would expect it not to occur. In this essay I illuminate this problem, showing how the logic of Fishman’s argument leads inevitably to this paradox, and I offer several suggestions as to how one might escape the creating around paradox.

IP & Litigation

Patent demands and initial public offerings
Robin Feldman (University of California Hastings College of the Law)
Evan Frondorf (University of California Hastings College of the Law)

Quantitative analysis of patent behavior is critical, as congressional and regulatory agencies consider the impact of patent trolling on modern markets. Anecdotal evidence has suggested that “non-practicing entities,” also known as “patent trolls,” specifically target companies for lawsuits, licensing demands, or other monetization activity as firms approach or complete major funding events, such as their initial public offering (IPO). To test this narrative, we survey in-house legal staff at companies that have recently gone public about their exposure to patent demands surrounding their first round of venture capital funding and their IPO. The study is one of the first attempts at providing quantitative insight into this potential strategic behavior both in and out of the courtroom.

We find evidence supporting systematic patent demand activity near IPOs, one of the most public and vulnerable periods of a company’s development. A significant proportion of recently public companies received patent demands either shortly before or after their IPO, with the majority of this activity originating from monetizers. The effects are especially pronounced for information technology companies. Our results are yet another indication that patent assertion activity is driven by lucrative economic incentives rather than legitimate and rightfully asserted claims of infringement.

IP Law & Policy

Standards, royalty stacking and collective action
Jorge L. Contreras (University of Utah – S.J. Quinney College of Law)
CPI Antitrust Chronicle, Mar. 2015 (2)

This article summarizes economic and legal theories regarding royalty stacking in view of recent U.S. case law that has addressed the impact of stacking on the reasonableness of patent royalty rates. It critiques the Federal Circuit’s decision in Ericsson v. D-Link, holding that actual evidence of stacked
payments must be proffered to support a jury instruction on stacking. It concludes with a proposal for reducing the impact of royalty stacking through collective royalty cap negotiation and a call for antitrust agencies to confirm that such negotiations would have pro-competitive benefits and be analyzed under a rule of reason standard.

The bar against patenting others’ secrets
Christopher Funk (Kellogg, Huber, Hansen, Todd, Evans & Figel, P.L.L.C.)

In patent litigation, courts frequently allow patent holders to access an accused infringer’s trade secrets and other confidential technology. The secrets may be relevant to claims of patent infringement. But the confidential access creates a risk that patent holders will misuse those secrets when their attorneys or experts wear two hats — litigating the patent suit in court and working on patent applications in the same field as the accused infringer’s confidential technology. These two hats allow certain attorneys and experts the opportunity to target the accused infringer’s secret technology — either inadvertently or deliberately — by patenting it as their client’s own intellectual property (IP).

Several courts attempt to prevent this potential misuse of IP by imposing a patent prosecution bar, which typically forbids those with access to another party’s confidential technology from working at all on patent applications in the same field. But the U.S. Court of Appeals for the Federal Circuit has created a flawed test for determining when a district court may impose prosecution bars. As implemented by most district courts, prosecution bars apply to only those attorneys and experts who are “competitive decisionmakers” and who have a history of working on patent applications. The test is based on a vague and underinclusive term and leaves those without a similar history free of a prosecution bar and positions them to target the other side’s trade secrets with new patent claims. This targeted patenting undermines the IP system’s channeling between patents and trade secrets. Channeling theory posits that inventors whose inventions are inherently transparent or at risk of being reverse engineered will choose patents and public disclosure over trade secrecy; but inventors whose inventions are inherently opaque may well choose trade secrecy. Both forms of IP promote innovation and deserve protection. Patent prosecution bars protect the integrity and incentives of both forms of IP by ensuring one party does not inadvertently or deliberately misappropriate the other’s trade secret and grab a monopoly over technology it did not create.

Despite courts and parties routinely struggling to apply the Federal Circuit’s test, unfavorable standards of review have deterred appeals and made prosecution bars less visible to scholars. This Article fills a gap in the literature and proposes a new approach to patent prosecution bars that applies to everyone with confidential access. Instead of the current wholesale bars that prohibit any work on patent applications, the proposed model bar would prohibit only specific prosecution activities, such as drafting patent applications and claims, where attorneys or experts risk misusing their access to the other side’s secrets.

How courts adjudicate patent definiteness and disclosure
John R. Allison (University of Texas – McCombs School of Business)
Lisa Larrimore Ouellette (Stanford University)

In exchange for the rights provided by a patent, § 112 of the Patent Act requires patentees to clearly explain what their invention is (a requirement known as claim definiteness), as well as how to make and use it (the disclosure requirements of enablement and written description). Many concerns about the modern patent system stem from failures to enforce these requirements adequately. Patents cannot serve as efficient property rights if no one can determine the boundaries of those rights, and disclosure failures can lead to patents that cover far more than was actually invented. Better enforcement of § 112
may be the best way to address the problem of “patent trolls” asserting overbroad and unclear patents.
But despite the critical importance of § 112 to the functioning of the patent system, there is surprisingly
little empirical data about how it has been applied in practice. For example, although the conventional
wisdom is that courts have reached different outcomes when applying § 112 to different technologies and
industries, these assertions are based on only a handful of prominent cases.

To remedy this reliance on anecdotes, we have created a hand-coded dataset of 1,144 reported court
decisions from 1982 to 2012 in which U.S. district courts or the Court of Appeals for the Federal Circuit
rendered a decision on the enablement, written description, or claim definiteness requirements of § 112.
We coded validity outcomes under these three doctrines on a novel five-level scale so as to capture
significant subtlety in the strength of each decision, and we also classified patents by technology and
industry categories. We also coded for a number of litigation characteristics that could arguably influence
outcomes. Although one must be cautious about generalizing from reported decisions due to selection
effects, our results show some statistically significant disparities in § 112 outcomes for different
technologies and industries, although fewer than the conventional wisdom suggests, and not always in
the direction that many have believed. Just as importantly, our analysis reveals the effects of other
variables on § 112 outcomes, including whether a district court or the Federal Circuit made the last
decision in a case, whether a patent claim was drafted in means-plus-function format, and whether a
case was decided before or after Markman v. Westview Instruments (holding that interpretation of patent
claims is for the court, not the jury).

Patent disclosure and definiteness have been the focus of much recent debate about the patent system.
Commentators have argued, for example, that the written description doctrine should be eliminated and
that the enablement and definiteness requirements should be significantly revised, and the Supreme
Court set forth a new test for indefiniteness in 2014, the contours of which remain uncertain. Our results
on how § 112 has been applied in practice will be helpful in evaluating current proposals for reform, and
our rich dataset will enable more systematic future studies of these critical doctrines.

Monopolization through patent theft
Christopher R. Leslie (University of California, Irvine School of Law)

Patent theft occurs when a firm steals an innovator's idea and then files an application for a patent on
that invention with the Patent and Trademark Office ("PTO"). If successful, the patent thief can exclude
even the true innovator from making and selling the product that she herself invented. When the patent
thief succeeds in stealing and patenting another’s innovation and then using the exclusionary rights
granted by the patent to monopolize a market, antitrust principles are implicated. Section 2 of the
Sherman Act condemns illegal monopolization, which is monopolization through anticompetitive conduct
instead of through competition on the merits. The Supreme Court has long held that patent fraud is
anticompetitive conduct.

Patent theft is a species of patent fraud. Patent fraud is lying to the PTO in order to secure a patent that
the applicant is not entitled to receive, for example, by withholding relevant evidence of prior art. A patent
thief is lying to the PTO by claiming to have made the invention for which it is seeking a patent. However,
while monopolization through patent fraud violates Section 2 of the Sherman Act, courts have held that
monopolization through patent theft does not. This is peculiar because monopolization through patent
theft is essentially monopolization through patent fraud (which is clearly illegal) coupled with stealing
(which is independently illegal). In other words, coupling an antitrust violation with another illegal act
creates antitrust immunity.

This Article explains why the rationales for immunizing patent theft from antitrust liability are unsound. In
particular, it explains how patent theft can create market power that otherwise would not exist and cause
market prices to rise. Patent theft also undermines innovation and efficiency – perennial concerns of antitrust law. Finally, this Article explains why monopolization through patent theft should in fact violate Section 2 of the Sherman Act.

Copyright Law

Copyright trolls and the common law
Brad A. Greenberg (Columbia University – Law School; Yale Information Society Project)

Copyright trolls have been treated as a kind of IP boogeyman — an apocryphal malevolent occupying the realm of legal nightmares. But Matthew Sag’s important new work, “Copyright Trolling, An Empirical Study,” helps bring copyright trolls out of the dark. In a way that only sharp data can, Sag’s research serves as a wakeup call to anyone who thinks that litigation trolling remains a rare and inconsequential burden on the U.S. copyright regime and federal courts.

Sag’s research draws from his database of all federal district court copyright lawsuits filed between January 1, 2001 and March 31, 2014. Within that time period, Sag focused on a form of trolling that has come to dominate the federal copyright docket — the Multi-Defendant John Doe (“MDJD”) lawsuit — and discovered a seismic shift in the nature of copyright lawsuits. Though almost unheard of in 2001 and rare before 2010, 43% of copyright lawsuits filed in 2013 were against John Does; most of those were related to pornography. Moreover, MDJD lawsuits constituted the majority of copyright cases in “19 of the 92 federal district courts” and “in the Third, Fourth, Sixth, Seventh, Tenth, Eleventh, and D.C. Circuits in 2013.” Sag points to two key factors: the availability of statutory damages and the laxness of joinder standards in copyright infringement actions.

Indirectly, Sag also sheds light on the question of who should redress copyright trolling: Congress or courts? By placing copyright trolls within the tradition of opportunistic plaintiffs and helping quantify the MDJD form, Sag reminds us that copyright trolls have a transient nature. As I discuss below, amorphous trolling forms are best addressed through ad hoc determinations rather than per se classifications. This understanding urges a judicial approach over a legislative one.

The moral psychology of copyright infringement
Christopher J. Buccafusco (Illinois Institute of Technology – Chicago-Kent College of Law)
David Fagundes (Southwestern Law School)
Minnesota Law Review, Vol. 100, Forthcoming

Numerous recent cases illustrate that copyright owners sue for infringement even when an unauthorized use of their work causes them no economic harm. This presents a puzzle from the perspective of copyright theory as well as a serious social problem, since infringement suits designed to remedy non-economic harms tend to stifle rather than encourage creative production. While much scholarship has critiqued copyright’s economic theory from the perspective of authors’ incentives to create, ours is the first to explore this issue from the perspective of owners’ motivations to sue for infringement. We turn to moral psychology, and in particular to moral foundations theory, to analyze the essential reasons that make owners feel that they have been wronged. Recent work in this field shows that people generally exhibit moral indignation for a variety of reasons, including but by no means limited to experiencing economic harm. So while copyright law assumes that owners are economically rational beings who will sue only to protect their creative incentives, our analysis shows that owners will also sue over concerns related to sullied purity, breached loyalty, and a sense of injustice. Outlining the moral psychology of copyright infringement generates both theoretical and practical payoffs. First, it allows us to chart a
middle course between the traditional copyright theories of economic consequentialism and moral rights. We show that actively accounting for owners’ innate sense of moral outrage better allows us to craft a copyright system that is truer to its constitutional goals of optimizing creative production. Second, it enables us to explore a variety of different policy levers — statutory, constitutional, and administrative — that could ameliorate the social problems raised by infringement suits not motivated by copyright-relevant harm. This Article represents a first step toward a fuller empirical exploration of the subjective experience of copyright infringement, as well as an illustration of the potential that moral psychology and moral foundations theory have for law generally.

Other IP Topics

Advent of intellectual property rights in the pharmaceutical industry: increasing dominance of new knowledge economy or opening the Pandora’s Box
Pallavi Mahajan (Rajinder Narain and Co, Lawyers and Solicitors)
Working Paper

Pharmaceutical Sector is one of the most diverse, knowledge driven, technology intensive growth areas, where fast track advancements can surely generate significant resources. India’s pharmaceutical sector is currently undergoing unprecedented change. Much of this is due to country’s introduction, on January 1, 2005, of a system of product patents in addition to process patent, with the signing of the TRIPS Agreement and implementation of the Patents (Amendment) Act, 2005.

The paper concentrates on the issues regarding Intellectual Property Rights (IPR) and the challenges faced by the Pharmaceutical Industry.

The research shows that with the new IPR regime, India is hopeful to capture 20-25 percent of the world’s generic market in the pharmaceutical sector by 2010. It has also led to the return of the pharmaceutical multinationals, many of which had left India during 1970s. The new age industry competition will see a paradigm shift from comparative advantage of cost and natural resources to competitive advantage of products and processes.

However, on the flip side, the research throws light on the relentless march of IPR, which is running far ahead of the ethical, legal, regulatory and policy frameworks needed to govern its use. Product and process patent provide drug companies with monopolies over the production and marketing of medicines, allowing them to fix prices at higher rates to maximize profits. The 20-year protection from patent rights and the obligation to recognize product and process patent will eliminate competition from generic pharmaceutical producers. Thus, the amendment is likely to negatively affect people’s access to medicines. The question on the availability of life-saving drugs also arises.

The findings of the paper are that the TRIPS Agreement should be amended so as to bring a proper balance between corporate and public interest.

Designing food, owning the cornucopia: what the patented peanut & jelly sandwich might teach (the replicator and non-scarcity economics)
Thomas Folsom (Regent University School of Law)

Imagine for purposes of discussion that the technology for designing and building an actual cornucopia — something that embodies coded genetically modified organisms, or other coded techniques for producing, modifying, creating, or duplicating food (call it neo-tech food design) — exists, works, and is
safe. To frame the problems of neo-tech food design, I start with what ought to be an easy case of low-tech food design, the peanut butter and jelly sandwich. Since it is a prime example of an incremental improvement invention, and hence like very many other inventions that are routinely patented, it must be asked: was there a problem? And if so, what exactly was the problem with the issuance, or cancellation, of a patent on a sandwich having a doubly encapsulated, twice sealed jelly filling, with spaced apart seals, one of which sealed capsules is peanut butter?

Based on lessons learned from the once-patented sandwich, I present two proposals. First, and as what may seem an unlikely solution, I endorse the creation of a Public Domain Protection Agency (PDPA) with resources to help resolve the problems that will predictably arise out of a cornucopia. The PDPA might also serve as a counterweight to the tendency, exemplified by the agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), to lock-in some of the current developed nations’ standards for patentability, worldwide. Second, I present an alternate proposal that may be more attainable: virtual field of use limitations coupled with virtual ratemaking proceedings.

About the editor

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