[* * Discussion Draft * *]

REMOVING PROPERTY FROM INTELLECTUAL PROPERTY AND (INTENDED?) PERNICIOUS IMPACTS ON INNOVATION AND COMPETITION

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Abstract

Property rule treatment of intellectual property (IP) is said to cause "excessive" transaction costs, thickets, anticommons, hold-ups, hold-outs, and trolls, unduly taxing and retarding innovation, competition, and economic growth. The popular response has been to offer a shift towards some limited use of weaker liability rule treatment, usually portrayed as "just enough" to facilitate transactions in those special cases where the bargaining problems are at their worst and where escape hatches are most needed. This paper shows how over just the past few years, the patent system has been hugely re-shaped from a system having several major, and helpful, liability-rule-pressure-release-valves, into a system that is almost devoid of significant property rule characteristics. The paper then explores some harmful effects of this shift, focusing on the ways liability rule treatment can seriously impede the beneficial deal-making mechanisms that facilitate innovation and competition. The basic intuition behind this bad effect of liability rules is that they seriously frustrate the ability for a start-up or other market-challenging patentee to attract and hold the constructive attention of a potential contracting party (especially one that is a larger more established player) while preserving the option to terminate the negotiations in favor of striking a deal with a different party.

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I. INTRODUCTION

In the well known taxonomy of the law and economics literature, private sector entitlements often are seen as being enforced in one of two basic ways: with property rules or liability rules. Property rules are designed to keep an entitlement in the hands of its owner unless the owner consents to use or transfer; and emblematic property rules include injunctions designed to prevent such use or transfer, and enhanced damages designed to deter them. Conversely, liability rules are designed to allow infringement when the owner refuses consent and generally require the non-owner merely to pay, after a lawsuit the property owner elected to bring and maintain, whatever amount of money the property owner proves in court to be attributable to the objectively measured damages caused by the infringement.[1]

In the vast majority of the intellectual property (IP) literature, property rule treatment of IP is said to cause excessive transaction costs, thickets, anticommons, hold-ups, hold-outs, and trolls, unduly taxing and retarding innovation, competition, and economic growth. The popular view of IP today is that property rule treatment is stopping deals from getting done, leaving desired users of IP subject matter unable to engage in sufficient productive activities. For example, the injunction infamously sought against the provider of the Blackberry service was said to threaten ongoing operations at the upper echelons of American government and economy, which were staffed by VIP's who had come to so depend on the devices that the nickname Crackberry was spawned.[2] To hear some tell it, one might have thought the American Way of Life was at stake.

In response to these problems, many commentators suggested trying to solve these important problems of property by only slightly shifting towards some limited use of liability rule treatment. The idea was to facilitate transactions in those targeted cases where the bargaining problems are at their worst and where escape hatches are most needed.

One well known problem with such a targeted response is that there does not seem to be a small number of targets. Property can face serious pitfalls when the negotiations it would require involve one or both sides being made up of a large number of parties, thereby triggering problems of coordination, free-riding, holdouts, etc., such as when a large number of users would each require permissions from a large number of IP owners. Property's pitfalls also can be serious when the two sides of the negotiation are each individuals, who would still face problems of bilateral monopoly,

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[1] See, e.g., Guido Calabresi & A. Douglas Melamed, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral*, 85 HARV. L. REV. 1089, 1092 (1972).

[2] Blackberry maker Research in Motion is reputed to have strategically targeted such VIP's for free devices as a marketing ploy, recognizing that if the leadership of an organization liked the devices it would both increase the willingness of the organization to invest in the infrastructure needed to support them and at the same time lend a level of prestige to having the devices.

strategic behavior, and cognitive biases. And mixed sized models raise a mix of both sets of problems.[3] But focusing on efforts to determine which of these situations should be targeted first would be a tragic mistake because a more troubling problem has crept up.

This paper argues that just as Jonathan Swift's *A Modest Proposal* was a less than forthright title for its suggestion that the 18th Century Irish poor sell their children as food for the rich, the calls for targeted reforms in the patent system over the past few years by innovation's discontents have been less than complete in acknowledging the important liability rules long present in the patent system and in acknowledging that the reforms they were pushing would essentially remove property rule treatment from this area of IP. Part II begins the discussion by elucidating the several major, and largely helpful, liability-rule-pressure-release-valves that were already built into the patent system and the recent changes that have stripped away those few significant property rule characteristics that were remaining. Part II.B.3 then explores some pernicious effects of this shift by focusing on the ways liability rule treatment can seriously impede the beneficial deal-making mechanisms that facilitate innovation and competition. The basic intuition behind this bad effect of liability rules is that they seriously frustrate the ability for a start-up or other market challenging patentee to attract and hold the constructive attention of a potential contracting party (especially one that is a larger more established player) while preserving the option to terminate the negotiations in favor of striking a deal with a different party. The discussion also elucidates the way other recent shifts in the law relating to contracts over patents further frustrate the ability to strike such pro-competitive, pro-innovation helpful deals. Part IV concludes.

II. THE PATENT SYSTEM'S LIABILITY RULES

Liability rules are no stranger to the patent system. Liability rule treatment is expressly provided in a number of areas within patent law and a number of other areas of patent law have liability rule effect. In addition, patents are enforced only against a backdrop of general civil law, which itself contains a number of tools that effectively keep enforcement of an entitlement like an IP right limited to liability rule treatment in many contexts.

A. Liability Rules Long in Use

Most property rights systems recognize that an absolute right to exclude backed up by inexpensive, immediate, certain, and powerful enforcement could lead to serious risk that socially productive uses might be prevented or deterred. For this reason, even most systems of real or personal property have a host of mechanisms for allowing trespass to occur without imposing an immediate death sentence. The patent system also has long recognized that it can be helpful to allow some extent of liability rule treatment, as a tool for facilitating some transactions.

1. Corporate Law, Bankruptcy Law, Litigation

One of the most important, but also most overlooked, sources of liability rule impact on the patent system are the generally applicable bodies of law relating to the corporate form, bankruptcy,

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[3] See, e.g., James E. Krier & Stewart J. Schwab, *Property Rules and Liability Rules: The Cathedral in Another Light*, 70 N.Y.U. L. REV. 440, 450-51 (1995).

and litigation.[4] Indeed, it has been those often seen as being on the so-called pro-property side of the debates about IP who have pointed out this effect, and even urged its importance to certain types of deal structures. Because these areas of general commercial law exist largely independent of any one area of entitlement-creating law such as IP, it would be a stretch to say that these areas of law are part of IP; but they do operate to burnish down the sharp edges one might otherwise imagine would be associated with IP.

While relatively new to the IP literature, the general finance and liability literatures have long focused on the ways the limited liability offered to shareholders under the corporate form[5] can be combined with the ability to seek protection from the bankruptcy laws to allow for a number of so-called judgment-proofing strategies such as sale-leasebacks, doing business through subsidiaries, franchising, off-shore asset sequestration, secured debt, and traditional asset securitization, that may have the effect of eliminating legal liability.[6] These techniques are equally available against patent infringement judgments, and indeed many are used by parties anticipating or engaged in patent litigation.

In addition, judgment proofing against tort creditors like patentees can be particularly easy – like avoiding an outrage constraint. For example, as long as those running the infringing business respect the corporate form and pay themselves non-fraudulent wages and dividends, etc., they will be able to derive a vast amount of money and other benefits from an infringing business before an infringement lawsuit is brought and won and then keep those gains from getting hauled back into the infringement estate.

An interesting question for further research might be to study why these techniques are not used even more widely. While some have suggested that such fears over the death of formal legal liability are overstated, because, for example, a parent corporation would rationally elect to pay for the debts of its subsidiary out of an interest in preserving goodwill and reputation, some recent

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4 See, e.g., F. Scott Kieff, *Property Rights and Property Rules for Commercializing Inventions*, 85 MINN. L. REV. 697 (2001) (general importance); F. Scott Kieff & Troy A. Paredes, *Engineering a Deal: Toward a Private Ordering Solution to the Anticommons Problem*, 47 BOSTON COLLEGE L. REV. 111 (2006) (particular deal structure).

5 For more on limited liability, see, e.g., Frank H. Easterbrook & Daniel R. Fischel, *Limited Liability and the Corporation*, 52 U. CHI. L. REV. 89, 105–06 (1985); Timothy P. Glynn, *Beyond "Unlimiting" Shareholder Liability: Vicarious Tort Liability for Corporate Officers*, 57 VAND. L. REV. 329 (2004); Joseph A. Grundfest, *The Limited Future of Unlimited Liability: A Capital Markets Perspective*, 102 YALE L.J. 387 (1992); Paul Halpern et al., *An Economic Analysis of Limited Liability in Corporation Law*, 30 U. TORONTO L.J. 117 (1980); Henry Hansmann & Reinier Kraakman, *Toward Unlimited Shareholder Liability for Corporate Torts*, 100 YALE L.J. 1879 (1991); David W. Leebron, *Limited Liability, Tort Victims, and Creditors*, 91 COLUM. L. REV. 1565 (1991); Henry G. Manne, *Our Two Corporation Systems: Law and Economics*, 53 VA. L. REV. 259, 261–65 (1967); Robert B. Thompson, *Unpacking Limited Liability: Direct and Vicarious Liability of Corporate Participants for Torts of the Enterprise*, 47 VAND. L. REV. 1 (1994). While the focus here is on corporations, limited partners in a limited partnership and members in a limited liability company also enjoy the benefits of limited liability.

6 For a sampling of the literature on judgment proofing, on which this Essay's discussion of the subject builds, see, e.g., Lynn M. LoPucki, *The Death of Liability*, 106 YALE L.J. 1 (1996) [hereinafter LoPucki, *Death of Liability*]; Lynn M. LoPucki, *The Essential Structure of Judgment Proofing*, 51 STAN. L. REV. 147 (1998) [hereinafter LoPucki, *Essential Structure*]; Lynn M. LoPucki, *The Irrefutable Logic of Judgment Proofing: A Reply to Professor Schwarcz*, 52 STAN. L. REV. 55 (1999) [hereinafter LoPucki, *Irrefutable Logic*]; Lynn M. LoPucki, *Virtual Judgment Proofing: A Rejoinder*, 107 YALE L.J. 1413 (1998) [hereinafter LoPucki, *Virtual Judgment Proofing*]; Charles W. Mooney, Jr., *Judgment Proofing, Bankruptcy Policy, and the Dark Side of Tort Liability*, 52 STAN. L. REV. 73 (1999); Steven L. Schwarcz, *Judgment Proofing: A Rejoinder*, 52 STAN. L. REV. 77 (1999) [hereinafter Schwarcz, *Rejoinder*]; Steven L. Schwarcz, *The Inherent Irrationality of Judgment Proofing*, 52 STAN. L. REV. 1 (1999) [hereinafter Schwarcz, *Inherent Irrationality*]; Steven Shavell, *The Judgment Proof Problem*, 6 INT'L REV. OF L. & ECON. 45 (1986) [hereinafter Shavell, *Judgment Proof Problem*]; James J. White, *Corporate Judgment Proofing: A Response to Lynn LoPucki's* The Death of Liability, 107 YALE L.J. 1363 (1998); Steven Shavell, *Minimum Asset Requirements and Compulsory Liability Insurance as Solutions to the Judgment-Proof Problem* (Harvard, John M. Olin Discussion Paper No. 456, 2004), *at* http://www.law.harvard.edu/programs/olin_center/papers/pdf/ 456.pdf [hereinafter Shavell, *Minimum Asset Requirements*].

decisions to not pay in the cases involving sex abuse charges against the Catholic Church and alleged human rights violations in Nigeria by a subsidiary of Chevron suggest the reputational constraints may not bind.[7] The bottom line for infringers is that as a practical matter they may not be on the hook, at least not for the full amount, even if they are found to have infringed.

Even when the careful corporate structuring and planning needed to reduce liability have not been taken, the award of liability can be significantly deterred or delayed by the ordinary process of civil litigation. Patents are wasting assets in that they only remain in force for about 17 years, and for most patents it is not until several years into patent term that the patented technology becomes of commercial significance. Meanwhile, trying a patent case typically takes at least three to five years; and the appeal typically adds another two to three years. If the patent suit is not likely to end before patent expiration, any threat of injunction will significantly decrease.

Cost also is a deterrent. Patent litigation typically costs each side three to five million dollars, although it is not rare for cases to take more than five years and cost each side twenty to thirty million dollars. Much hay is made by commentators about the threat of damages awards in patent cases frequently reaching into the hundreds of millions and sometimes billions of dollars. But regardless of its size, no judgment is likely to be worth more than the amount that can actually be collected and the judgment proofing strategies can keep collections to a minimum. Decisions to pursue litigation have to consider the certainty of the several million dollars in litigation expenses and the possibility of collecting on a judgment as well as the possibility of the judgment being awarded.

2. Uncertainty in Enforcement

As Ayres and Klemperer point out, uncertainty and delay in the patent system has the same effect as liability rule treatment.[8] While Ayres and Klemperer were complaining about the large degree of certainty in the system, Lemley and Shapiro explore the many ways in which the system is properly seen as a probabilistic game of great uncertainty.[9]

3. Experimental Use and the Hatch-Waxman Act

Some commentators have long suggested that patent law should permit non-commercial, experimental use of a patented invention as an exception to infringement under a so-called experimental use exemption or research use exemption. To the extent this doctrine exists, it was severely limited in the case of *Roche v. Bolar*,[10] in which the court held that limited experimental use by a generic drug company to obtain Food and Drug Administration (FDA) approval for use after the patent expired was an infringing use.

Congress responded to *Roche* with the enactment of the Hatch-Waxman Act in 1984, which added Section 271(e) to the Patent Act, and which essentially deems activities reasonably related to FDA approval to be non-infringing, so as to streamline FDA approval of so-called Abbreviated New Drug Applications (ANDA's). At the same time, the Act requires the sponsor of the ANDA to

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[7] I thank Lynn LoPucki for pointing this out. See also, Lynn M. LoPucki, *Toward a Trademark-Based Liability System*, 49 UCLA L. REV. 1099, 1131-34, n. 153 (2002).

[8] Ian Ayres & Paul Klemperer, *Limiting Patentees' Market Power Without Reducing Innovation Incentives: The Perverse Benefits of Uncertainty and Non-Injunctive Remedies*, 97 MICH. L. REV. 985, 92 (1999) (criticizing the crispness of the present patent system).

[9] Mark A. Lemley and Carl Shapiro, *Probabilistic Patents*, 19 J. ECON. PERSP. 75 (2005).

[10] 733 F.2d 858 (Fed. Cir. 1984).

make a certification that the drug will not infringe any valid claim and deems the filing of such a certification to be a jurisdictionally-creating act of infringement so that a patentee can bring suit on the patent during the FDA approval process and if victorious, keep the competition from coming to market until after the patent expires. At the same time, the competition is allowed to make progress on obtaining FDA approval before expiration of the patent so that he is ready to come to market soon after expiration. Thus, in the field of biotechnology, the experimental use exception has been viewed as rather liberal, but restrained by the mechanisms of the Hatch-Waxman Act and in other fields of technology the exception is very limited by the holding of *Roche*, if it exists at all.

It makes sense for the research use exemption to be limited because it turns out that most research uses are in effect permitted via a different mechanism. The bottom line is that the transaction costs of dealing with a patentee's right to exclude are not carried entirely by those wanting to obtain permission for use. Unlike the copyright system, the patent system does not have criminal liability or statutory damages and so the costs of enforcement are born by the property owner. The presence of these significant enforcement costs and the lack of significant enforcement benefits in many cases, especially those against low value users for who damages are likely to be low and even high value users who are judgment proof or judgment remote, combine to make it rational for patentees to greatly under-enforce. Importantly, the theory is born out by the facts. Empirical studies of the impact patents have had on basic scientists, for example, have shown that vast amounts of infringements are routinely allowed for free.[11]

4. Acts of Infringement by or for the Government

As demonstrated in the infamous post-9/11 anthrax scare during which the federal government wanted the owner of the patent on Cipro to provide large quantities of the drug at a low price, the federal and state governments have some protection from infringement by the doctrine of sovereign immunity. The Federal Government is subject to suit in the United States Court of Claims for "his reasonable and entire compensation"[12] but not for an injunction. The Government's threat to either make the drug or have it made was enough to get Bayer, the patentee, to drop its price and increase its output. To be sure, decisions to do this are cabined by the political process, but as seen in cases like *Kelo*, that outrage constraint does not always bind and parties in need of use are welcome to simply ask the government to make the decision to infringe or to arrange for the infringement.

State governments also are immune. The Supreme Court decided that state governments were immune from suit for patent infringement and that Congressional efforts to abrogate that immunity were unconstitutional under the 11th Amendment.[13] While state officials likely may be enjoined,[14] they may not be personally sued for patent infringement due to their official acts.

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[11] Timothy Caulfield, Robert M. Cook-Deegan, F. Scott Kieff, & John P. Walsh, *Evidence and Anecdotes: An Analysis Of Human Gene Patenting Controversies*, 24 NATURE BIOTECH. 1091 (2006).

[12] 28 USC § 1498. This may either be seen as a limited waiver of sovereign immunity or as a statute that assigns jurisdiction for a cause of action that exists as of right to seek just compensation for a taking under the 5th Amendment. Compare Zoltek.

[13] See Florida Prepaid Postsecondary Education Expense Board, v. College Savings Bank, 527 U.S. 627 (1999).

[14] Ex Part Young.

B. Liability Rules Recently Added

While the patent system had long contained the mix of property and liability rules described above, the mix was radically shifted over the past few years with a slew of high profile cases that essentially decimated the property rules remaining in the system. The many new, and overlapping, liability rules are each discussed below.

1. Injunctions Eliminated by the *eBay* Case

For a long time, a central part of the value in a patent was the credible threat of an injunction. But the recent Supreme Court decision in *eBay* may weaken this long-standing practice.[15] Some see this case as having raised the bar for patentees seeking an injunction after there has been a full adjudication of patent validity and infringement by injecting more discretion in the determination of essentially whether an injunction is in the broadly defined public interest. Others see the case as merely restating the established practice that an injunction should issue once validity and infringement have been decided in court. In the final analysis, the full impact of the *eBay* case remains an open question for debate.

But in the short term it looks as if even the Federal Circuit is treating the case as making it very hard to get an injunction except if the patentee is a large manufacturing entity. In October of 2007 the court issued an opinion in *Paice v. Toyota* affirming the power of a district court to impose a post verdict "ongoing royalty" on future sales of a product adjudicated to infringe a patent adjudicated to be not invalid after a full trial by sophisticated and well financed defendants.[16] The court took pains to write that this was merely an "ongoing royalty" and "not a compulsory license" because it did not apply to non-parties to the lawsuit. What the court seems to overlook is that the defendant elected to be a party by electing to infringe and the patentee was compelled to be a party and compelled to accept the royalty, leaving open the suggestion to future parties interested in this and other patents that the season for infringement is open.

2. Enhanced Damages eliminated by the *Seagate* Case

The victorious patentee in an infringement suit is supposed to be awarded at least actual, objective, damages "adequate to compensate for the infringement, but in no event less than a reasonable royalty."[17] In the past, the patentee also was generally able to receive enhanced damages for willfulness, which is a question of fact to be proven by clear and convincing evidence, and which if found by fact-finder would then leave within the judge's discretion a decision about whether to treble damages and award attorney fees.[18]

However, the ability for patentees to obtain enhanced damages for willfulness may have been significantly curtailed recently by the Federal Circuit decision in *Seagate*.[19] In that case, the Federal Circuit seemed to have established a new test for willful infringement, a showing of "objective recklessness" on the part of the infringer, based on a two step test: (1) the infringer acted despite an objectively high likelihood that its actions infringed a valid patent, treating the infringer's subjective

15 See eBay Inc. v. MercExchange, LLC, 126 S.Ct. 1837 (2006).
16 Paice LLC v. Toyota Motor Corp. ___ F. 3d. ___ (Fed. Cir. Oct. 18, 2007).
17 35 USC § 284.
18 35 USC §§ 284-85.
19 See In re Seagate Technology, LLC, 497 F.3d 1360 (Fed. Cir. 2007) (en banc).

state of mind as irrelevant; and then (2) that the objectively high risk was either known or should have been known to the infringer.[20] The Court took pains to emphasize that "[b]ecause we abandon the affirmative duty of due care, we also reemphasize that there is no affirmative obligation to obtain opinion of counsel."[21] It also strongly suggested that a substantial question regarding infringement or validity that is sufficient to avoid a preliminary injunction also is likely sufficient to avoid a willful infringement finding. This means that the uncertainty discussed above, especially enhanced by the uncertainty discussed below, are likely to leave most patent infringement cases in a bad position for a preliminary injunction and a correspondingly bad position for enhanced damages. Put differently, after *Seagate*, it is hard to imagine a patentee who can win enhanced damages regardless of the notice he gives the defendant.

3. Expanded Hatch-Waxman Immunity by the *Merck* Case

The common law research use exemption discussed above seems to have been reaffirmed recently to be extremely narrow in exempting only those uses that are "for amusement, to satisfy idle curiosity, or for strictly philosophical inquiry."[22] For academic researchers, who do much if not all of their work in furtherance of philosophical inquiry, the legal test in essence allows only for a very limited amount of research to be conducted on patented technologies to confirm whether they work as described in the patent. It does not allow for the user of a patented technology to be legally exempt from infringing simply because their use has to do with research or is for research purposes. The distinction here is between researching with and researching on, which basically distinguishes between a business purpose that would not be exempt and a purely philosophical interest that could be. The bottom line is that only a limited number of uses to genuinely test whether a patented technology works will be good candidates for the common law exemption.

Nevertheless, and despite the clear legislative intent to limit the Hatch-Waxman Act's exemption for infringement, the Supreme Court in the recent *Merck* case treated the statutory exemption so broadly that the Court gave a free pass from infringement for work relating to preclinical studies of a new drug seeking FDA approval.[23] A careful reading of the *Merck* decision would of course not extend its impact beyond the narrow facts of the case. Any other view would not only be an overly strained reading of the opinion; but it also would undercut the important policies of the patent system. But the language of the *Merck* opinion seems to suggest that the statutory exemption now is not limited only to the development of information for submission to the FDA and that instead Congress "exempted from infringement all uses of patented compounds 'reasonably related' to the process of developing information for submission under any federal law regulating the manufacture, use, or distribution of drugs."[24] This language seems to cover almost any use by any company that is in some way regulated by the government, and which therefore may reasonably be anticipating submitting data to a regulatory body.

[20] Seagate, slip op. at 12.
[21] Id.
[22] Madey v. Duke University, 307 F.3d 1351 (Fed. Cir. 2002).
[23] Merck KGaA v. Integra Lifesciences I, Ltd., 545 U.S. 193 (2005).
[24] Merck, 545 U.S. at 206.

4. Increased Uncertainty by *KSR* and Other Cases

Two key areas of the law allocating or awarding the initial patent entitlement have undergone a dramatic increase in uncertainty in the past year. The first relates to the patent law requirement of nonobviousness and the second relates to the requirement of statutory subject matter.

The recent US Supreme Court decision in *KSR* is seen by many as having raised the bar for the nonobviousness standard by injecting more discretion into the determination of this central issue for most patent cases.[25] The central issue presented in *KSR* is whether expert opinion testimony in court when adopted at the discretion of a federal judge is enough to prove what would have been obvious to a person having ordinary skill in the art of the patentee at the time in history when the patentee made an invention. Patent critics see the *KSR* case as standing for the proposition that government decision-makers like judges now have increased discretion to pronounce what the prior art teaches; and they applaud that result, hoping to see it applied in court and during initial Patent Office examination. For example, examiners would be able to block patents on the basis of their own assertions about what the state of the art was at a particular time in history, without having to rely on the factual proof, such as documents and sample products, which has long been required. Others think the case was narrowly decided on its facts and that the relevant inquiry remains an objective determination of precisely what was taught by the particular combination of relevant pieces of prior art. If the case is ready broadly, then it injects a great degree of flexibility into the nonobviousness analysis.

Similarly, the Federal Circuit has just recently issued two opinions that inject a great degree of flexibility and uncertainty into the law of statutory subject matter. The Supreme Court and Federal Circuit used to treat as patentable subject matter "anything under the sun made by man."[26] In a case that effectively opened up the field of computer programs to patent protection, the Federal Circuit in banc upheld as directed to statutory subject matter a patent claim on a computer program for printing a smooth curve on a compute screen.[27] Then, in a case that effectively opened up the field of financial services to patent protection, the court did the same for a patent on a hub-an-spoke mutual fund accounting system, disposing of the so-called algorithm and business method exceptions to patentable subject matter.[28] Thus, until recently, the touchstone for patentable subject matter had been merely that the claimed invention must cause come concrete and tangible result, and as a result, patentable subject matter itself presents a very low hurdle to patentability.

This all changed on September 20, 2007, when the court issued its decision in In re *Stephen W. Comisky*.[29] This decision seems to limit the scope of the *State Street Bank* decision by requiring a pure mental process be connected to a machine (e.g., a computer) in order for a claim to recite subject matter that can be patentable, under the so-called section 101. As a result of this decision, patent drafters and inventors of mental processes will be required to combine a particular technology such as a computer with such mental processes for the subject matter to meet the statutory requirement of patentable subject matter. While this seems like an easy decision to draft around, it is strikingly similar to the slippery slope we previously occupied in the 1970's and 1980's during which we effectively made every software patent subject to discretionary review for being too close to a mental step and therefore invalid. Indeed, in a case handed down the same day as

25 See KSR International Co. v. Teleflex Inc., 127 S. Ct. 1727 (2007).
26 Diamond v. Chakrabarty, 447 U.S. 303 (1980). See also Diamond v. Diehr, 450 U.S. 175 (1981).
27 See In re Alappat, 33 F.3d 1526 (Fed. Cir. 1994)(in banc).
28 State Street Bank & Trust Co. v. Signature Financial Group, Inc., 149 F.3d 1368 (Fed. Cir. 1999).
29 No. 2006-1286 (Fed. Cir. Sept. 20, 2007).

Comisky, In re *Petrus A.C.M. Nuijten*,[30] the Federal Circuit examined the patentability of claims to a digital watermark for a computer data file simply declared it to be not within any patentable subject matter. This type of "know it when you see it" decision making by the court re-injects massive uncertainty into the law of patentable subject matter.

While flexibility sounds attractive whether used in these areas or others, it has a serious Achilles Heel. By increasing the discretion of government bureaucrats, flexibility increases uncertainty, not decreases it, and it gives a built-in advantage to large companies with hefty lobbying and litigation budgets. That's a big reason why some big firms want it. And even if certain, it is now certainly much harder to get patents in this area.

III. HOW LIABILITY RULES FRUSTRATE DEALS

A central and underexplored problem with liability rules is that they seriously frustrate the ability for the patentee to attract and hold the constructive attention of a potential contracting party while preserving the option to terminate the negotiations in favor of striking a deal with a different party. The comparative effectiveness of property rules in achieving these effects is how property rules facilitate both innovation and competition. That is, property rules help get done the deals needed to build the small- and medium-sized business that create new lines of business to compete against existing ones.

A. Direct Impact of Recent Changes from Property to Liability Rules

Many scholars have focused on the relative overall information costs and transaction costs of liability rules compared with property rules, and the way liability rules tend to overall provide lower compensation than property rules.[31] In addition, Haddock, McChesney, and Speigel have explored the threat posed by a large number of potential takers in the liability rule setting and its net impact decreasing ex ante incentives to invest in the underlying entitlement.[32]

Yet, the literature has not devoted much focus to the mechanism by which actual breakdown in bargaining occurs, the "bargain effect" of property rules, let alone to the way the credible threat of exclusion associated with a published patent acts like a beacon in the dark, drawing to itself all those interested in the patented subject matter – a "beacon effect." Knowing there is a good chance that a court employing a liability rule approach will set a lower price than the IP owner would accept, some potential infringers may first try for a low damage award from the court, rather than consummate a deal up front with the IP owner, and then later make a deal if the court award is too high. The prospect that infringement may be an attractive option to some can decrease the

[30] No. 2006-1371 (Fed. Cir. Sept. 20, 2007).

[31] See, e.g., Richard A. Epstein, *A Clear View of The Cathedral: The Dominance of Property Rules*, 106 YALE L.J. 2091 (1997) (information costs and transaction costs); Robert P. Merges, *Of Property Rules, Coase, and Intellectual Property*, 94 COLUM. L. REV. 2655 (1994) (same); Henry E. Smith, *The Language of Property: Form, Context, and Audience*, 55 STAN. L. REV. 1005 (2003) (same); Richard R.W. Brooks, The Relative Burden of Determining Property Rules and Liability Rules: Broken Elevators in the Cathedral, 97 NW. U. L. REV. 267, 268 n.8 (2002) (elucidating analytical framework for assessing "the relative burden (or costs, or difficulty) faced by judges when attempting to determine property rules and liability rules"); Louis Kaplow & Steven Shavell, *Property Rules Versus Liability Rules: An Economic Analysis*, 109 HARV. L. REV. 713 (1996) (undercompensation); *see also* Louis Kaplow & Steven Shavell, *Property Rules Versus Liability Rules: An Economic Analysis*, 109 HARV. L. REV. 713, 732-33 n.61 (1996) (same).

[32] David D. Haddock et al., *An Ordinary Economic Rationale for Extraordinary Legal Sanctions*, 78 CAL. L. REV. 1, 16–17 (1990); F. Scott Kieff, *Property Rights and Property Rules for Commercializing Inventions*, 85 MINN. L. REV. 697, 733 (2001).

incentives for all others to attempt or consummate a deal ex ante, thereby weakening both the beacon effect and the bargain effect that are associated with property rules.[33]

The decrease in incentives in part occurs because each potential taker must worry about other potential takers following suit. That is, liability rules for one mean non-exclusive licenses for all.

The problem also is due to the incentive to consummate a deal that is decreased by the option to get a court to force the deal. A central argument in favor of liability rule treatment is that it is most needed as pressure release for those cases in which one side to a negotiation is acting irrationally or strategically and simply not getting along with the other. But, if the ability to avoid the property rule treatment hinged upon the failure of a deal getting done, then there would be a markedly increased incentive for those wanting to obtain use through court-ordered terms to resist striking licensing deals. A legal test that rewards a failure to cooperate would lead to a decrease, rather than an increase in cooperation.[34] Simply put, instead of the problem being a fear that the patentee is engaging in a hold-out or a hold-up game against the one desiring use, the problem will instead become that the patentee will be unable to hold its potentially bargaining partner in the negotiation, since that partner will instead want to engage in tactics designed to make the patentee act irrationally, such as by engaging in a proverbial Three Stooges poke in the eye, and then run off to simply wait for the court to issue a compulsory license.

What is more, not only is the patentee unable to hold this party in a negotiation, the patentee is unable to hold-on to the option to end the negotiation and deal with some other user over an exclusive license or assignment. That is, not all deals should get done and liability rule treatment forces them to get done.

What is worse, it appears that in the post *eBay* world the only party who can count on an injunction will be a large manufacturing entity. Ironically, these are the parties who need the protection of the injunction the least. First off, large players will usually be better able to finance the litigation and so bring a more credible threat to bear against infringers. Second, large players are more likely than small players to be able to keep their potential contract counterparts engaged in a contract relationship without the credible threat of the injunction, relying instead on broader relationships, reputation effects, and bargaining power.

B. Other Deal Breaking Changes in Rules about Patent Contracts

In addition to the recent shift toward overall liability rule treatment generally frustrating the ability of a patentee get done appropriate deals, another set of recent changes further frustrate that ability for the patentee to even settle or avoid cases. These involve the law governing two areas of contracting over patents, as discussed below.

1. Inability to Settle or Avoid Cases after the *Medimmune* Case

Invoking some kind of general and non-statutory public policy against those patents that enjoy a statutory presumption of validity,[35] but that are likely to be held invalid by a court if

[33] See, F. Scott Kieff, *On Coordinating Transactions in Information: A Response to Smith's Delineating Entitlements in Information*, 117 YALE L.J. POCKET PART 101 (2007); F. Scott Kieff, *Coordination, Property, and Intellectual Property: An Unconventional Approach to Anticompetitive Effects and Downstream Access*, 56 EMORY L.J. 327 (2006).

[34] Id.

[35] 35 U.S.C. § 282.

adjudicated, the Supreme Court decided in the 1969 Lear case to allow a party to a patent license to contest the validity of the licensed patent even if there is an express promise in the contract license to not raise such a challenge.[36] The general rule of Lear had been interpreted to require a challenger to do more than simply stop paying the royalties or performing the other obligations under the contract – he must also go so far as to formally challenge the patent's validity.[37]

The balance these cases created essentially gave the licensee the benefit of not being bound to his promise to not challenge, but at the same time saddled the licensee with the obligation to actually walk away from the entire license agreement when challenging the patent. The basic point was that the challenger could renegotiate the entire deal by electing to challenge, but could not selectively hold the patentee to all terms binding the patentee while allowing the licensee to have a shot at renegotiating some decrease in payment or other obligation once patent had been adjudicated invalid.

Concerned that this balance of interests was out of alignment, this year's Supreme Court decision in *Medimmune* makes it particularly easy for the licensee to bring such a challenge by no longer requiring the licensee to have to go all the way to break the entire license contract itself, instead allowing the licensee to challenge while keeping the patentee bound by the remaining contract terms.[38] The court in that case held that the patent licensee in that case was "not required, insofar as Article III is concerned, to break or terminate its 1997 license agreement before seeking a declaratory judgment in federal court that the underlying patent is invalid, unenforceable, or not infringed."

Some might think that a contractual work around to this case is the use of an express provision in the contract promising not to challenge the validity of the patent. But the broad public policy articulated in cases like *Lear* does not on its own terms have a constraint against being read so broadly as to make such a contractual provision against that public policy, and thereby unenforceable as against public policy or unenforceable as pre-empted by a federal policy. In addition, it is not clear what the remedy would be for such a breach. *Lear* itself prevents an injunction against challenging since *Lear* allows for a challenge in the face of a non-challenge promise. It also is not clear what the damages would be. Even if the expectation damages were viewed as including the cost of litigation, in most of these cases the central goal of the patentee will be to either keep the licensee bound to all terms or to leave both parties unbound to any terms. It is not at all clear that some damages award could achieve either of these goals even if a court were included to try to award it.

The bottom line is that the medium and strong readings of *Lear* and *Medimmune* suggest that patentee's will always have to recognize that when they give "peace" from litigation by executing a license agreement they will not be able to at the same time gain "peace" from litigation. This substantially reduces incentives to license by removing from the economics of a licensing transaction its central element. A license is a promise not to sue and those promises are not only enforceable one-way, which means they are of significantly less value to both sides of the deal.

[36] Lear v. Adkins, 395 U.S. 653 (1969); see also Beckman Instruments, Inc. v. Technical Dev. Corp., 433 F.2d 55 (7th Cir. 1970) (Lear applies to exclusive licensees); Bull v. LogEtronics, Inc., 323 F. Supp. 115 (E.D. Va. 1971) (Lear applies to assignees).

[37] See, e.g., Rite-Nail Packaging Corp. v. Berryfast, Inc., 706 F.2d 933 (9th Cir. 1983).

[38] See See MedImmune, Inc. v. Genentech, Inc., 127 S.Ct. 764 (2007).

2. Disincentive to Settle of Avoid Cases after the *Quanta* Case

The Supreme Court is presently taking briefing on *Quanta v. LG*,[39] which involves a patentee's decision to settle out a dispute with one party, Intel, but giving that party a limited license for that party's own use. The contract in that case expressly provided that Intel's customers would not be licensed under the patent and expressly required Intel to give notice to those customers of this lack of license. Those customers were large computer manufacturers on actual notice of this lack of license and yet have brought their case to the Supreme Court arguing that the patentee has in effect created a restrictive covenant running with the computer chips.

It made sense for Intel and the patentee to enter into this limited license because essentially, the patentee and Intel were entering into a blanket settlement of IP cases that bought Intel freedom, but only bought freedom for Intel. Intel needed the freedom because, for example, Intel might otherwise have been guilty of inducing third parties to infringe when it sold its products, computer chips. This settlement made clear that it let Intel free but not Intel's customers, and the price reflected this limited license.

The petitioner in this case seeks to argue that the so-called first sale doctrine makes the license required. Under this doctrine, a patentee's unrestricted voluntary introduction of a patented article into commerce, such as through a sale, may prevent the patentee from exercising his right to exclude others from the particular article so introduced. For example, under this doctrine, a patentee who makes an unrestricted sale of a patented widget may not be able to sue the buyer, or any other downstream user of that particular widget for infringement. After all, the buyer presumably paid the patentee not only for title to the good in the sales sense, but also for permission to use it for its intended purpose. Thus, the first sale doctrine can be viewed as a contract-based doctrine that implies into contracts for unrestricted sales of patented articles a term that conveys some authority to use the article free from a suit for infringement. But this doctrine really only provides a default rule, because courts have recognized that restrictive terms in a sale – such as a sale accompanied by a promise to make only a single use of the patented article – will be enforceable as long as they do not violate some other rule of positive law, is not adhesionary, or unconscionable, etc.[40]

Importantly, in general when you buy something you are not entitled to think that it is free of a patent -- especially if you are a large commercial player. The first sale doctrine only gets triggered if you buy the thing from the patentee because it makes sense in that case for you to think that you are buying a thing and also a license to use the thing under the patent – that's presumably why you bought it from the patentee rather than from someone else or made it yourself. The key here is your reasonable impression as a buyer that you are getting a license. In this *Quanta*, the "buyers" only came to know of Intel's license by reading it, and it made explicit that only Intel was licensed and not Intel's customers. So, there is on the facts no chance of confusion or mistake or duress etc. Quite the opposite, the buyer has to argue that it was seduced into thinking it was licensed by reading only half the document that seduced it.

The bottom line is that reversing this case would create a very strong disincentive to settle a case with any one of the many possible infringers in a market out of fear that the settlement would create some kind of license that could be use to launder all other members of the market. The settlement would have to be with all at a very high price or with none at all.

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[39] Quanta Computer v. LG Electronics, 128 S.Ct. 28 (Mem) (September 25, 2007) (NO. 06-937) (granting cert.).
[40] See Mallinkrodt v Medipart, 976 F.2d 700 (Fed. Cir. 1992).

IV. CONCLUSION

The patent system presently seems to be devoid of property rules, especially for small market entrants trying to sue or license larger more established market participants, and except perhaps for large established participants when suing market entrants. The stated purpose of stripping away this protection was to facilitate bargaining and avoid hold out and hold up effects. But while the property literature has long recognized and endeavored to mitigate the problems of property rules, we now face the problems of liability rules without the aid of a developed set of tools for mitigating their problems.

There are several basic intuitions underlying the problem caused by using liability rules only. First, while liability rules force deals, some deals just shouldn't get done. Second, a rule that allows for liability rule intervention in those cases where the parties disagree on deal terms encourages disagreement and frustrates transactions. Third, and most importantly, liability rules make it significantly more difficult for owners of IP rights like patents to attract and hold the constructive attention of a potential contracting party (can't hold-in the counterparty), and eliminate the patentee's option to terminate the negotiations in favor of striking a deal with a different party (can't hold-on to option). This problem hits small firms worse than large firms because large firms have an easier time keeping their contracting parties tethered to deals through various devices such as bargaining power, access to resources needed to finance litigation and its threat, and reputation effects.

Worse yet, the problems that have recently been introduced into the patent system through the removal of property rule treatment are only compounded by shifts in other rules governing patent contracts. Even when patent deals are struck they no longer seem to be enforced post *Medimmune*. Alternatively, the licenses that a patentee does grant one party may be granted to all third party buyers if *Quanta* is reversed, thereby creating a strong disincentive to even attempt to strike deals through patent settlements and other licenses.

The bottom line is that under the present system, it is very hard to see how patents can have significant positive effect in facilitating the coordination and contracting that can lead to increased competition and access. Instead, the prevalence of liability rules may actually be causing a substantial negative impact, the *keiretsu* effect of facilitating collusive anticompetitive coordination among large established market participants that I explore in other work.[41] The problems explored here, which are seriously under-explored, if not totally ignored, by most of the contemporary literature, combine to make the present system a strong candidate for change in the opposite direction called for by most other commentators.

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[41] See, F. Scott Kieff, *On Coordinating Transactions in Information: A Response to Smith's Delineating Entitlements in Information*, 117 YALE L.J. POCKET PART 101 (2007), F. Scott Kieff, *Coordination, Property, and Intellectual Property: An Unconventional Approach to Anticompetitive Effects and Downstream Access*, 56 EMORY L.J. 327 (2006).