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On Coordinating Transactions in Intellectual Property: A Response to Smith's *Delineating Entitlements in Information*

Henry Smith's *Intellectual Property as Property: Delineating Entitlements in Information*¹ contributes to the intellectual property literature by arguing that enforcing IP with rights to exclude can mitigate the high information costs associated with information-based assets. Smith is right, as far as he goes, but perhaps he should go further. Treating IP as property has at least three additional important benefits: First, it improves socially constructive coordination that facilitates the complex process of commercializing innovation. Second, the lack of property treatment facilitates the socially destructive coordination among large players employing a "keiretsu" strategy of collusion. Third, property treatment helps to mitigate those transaction and public choice costs that are associated with political, as compared to economic, markets.² In addition to perhaps not going far enough in these three respects, Smith may also go too far by overestimating the so-called "anticommons" objection to treating IP as property.

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1. Henry E. Smith, *Intellectual Property as Property: Delineating Entitlements in Information*, 116 *YALE L.J.* 1742 (2007).
 2. The ideas explored here are covered in more depth in F. Scott Kieff, *Coordination, Property, and Intellectual Property: An Unconventional Approach to Anticompetitive Effects and Downstream Access*, 56 *EMORY L.J.* 327 (2006).

I. CONSTRUCTIVE COORDINATION

Treating IP as property with rights to exclude provides significant incentives for parties to collaborate, helping to solve a key problem that would otherwise frustrate the socially constructive coordination that facilitates commercialization of innovation. Consider patents as an example of this solution in action. Bringing an invention to market requires coordination among its many complementary users, including developers, managers, laborers, other technologists, financiers, manufacturers, marketers, and distributors. This socially constructive coordination depends in at least two fundamental ways on the expectation that patents will be enforced with strong property protection.

First, 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. This beacon effect motivates these diverse actors to interact with each other and with the patentee, starting conversations among the relevant parties.

Although so many on the so-called “pro-IP side” of the IP literature, like Joseph Schumpeter and Edmund Kitch, maintain that the IP owner should be able to control uses,³ we should be agnostic about who should control the ensuing negotiations. Because we cannot know *ex ante* who will be best for that role, we should leave this determination to the particular facts of each negotiation. As the beacon effect highlights, facilitating coordination among interested parties is a less aggressive goal than assigning control to a particular party like the IP owner.

Second, the widespread expectation that the patent will be enforced motivates each of these parties to reach agreement with one another over the use and deployment of the technology. This bargaining effect falls apart if the parties are unsure the patent will be enforced because, in that case, there is significantly less need to reach agreement *ex ante*. The fear of weak enforcement creates a disincentive for the necessary parties to work together at the outset.

The IP literature has not devoted much focus to the mechanism by which this breakdown occurs. While Robert Merges focuses on how property rules give IP owners access to more remedies than liability rules, which in turn give them greater control, it is important to see how property rule treatment improves incentives for everyone in the bargaining process, not just the IP

3. JOSEPH A. SCHUMPETER, *CAPITALISM, SOCIALISM, AND DEMOCRACY* (3d ed. 1950); Edmund W. Kitch, *The Nature and Function of the Patent System*, 20 J.L. & ECON. 265 (1977).

owner.⁴ Smith, Merges, and Richard Epstein have all examined the information cost advantages of property rules in their scholarship,⁵ and work by Louis Kaplow and Steven Shavell has explored the risk that liability rules will lead to undercompensation of property owners because of multiple takings.⁶ But none of these IP scholars focuses on how adopting liability rather than property rules can impede coordination among takers and dissipate the incentives that parties other than the IP owner have to consummate a deal.

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 later if the court award is too high. The prospect that infringement may be an attractive option to some can decrease the incentives for all others to attempt or consummate a deal *ex ante*, thereby weakening both the beacon effect and the bargain effect.

In addition, while liability rules focus on price, deals involving IP often hinge on complex terms other than price, especially early in the process of commercializing new technologies. These terms often involve assets that are difficult to hedge, diversify, or insure, such as a particular individual's unique skills, time, and relationships, as well as specialized technical support, field-of-use or territory limitations, grant-backs, cross-licenses, payment schedules, and most-favored-nation provisions.

The problem is that a court-imposed damage award, which is emblematic of liability rule treatment, is in all but the rarest of cases reduced to a simple monetary amount. The promise of some share of a possible damages award does little to mitigate risk of loss of these other relatively unique assets for either the IP owner or the other parties involved.

For this reason, the helpful strategies explored by Ian Ayres for achieving similar or even superior results through liability rules⁷ hinge on whether those impacted are portfolio players. That is, Ayres' strategies favor those large, portfolio players who can more easily hedge, diversify, and insure the assets they are considering investing in these deals over smaller players making

4. Robert P. Merges, *A Transactional View of Property Rights*, 20 BERKELEY TECH. L.J. 1477, 1505 n.76 (2005).

5. Richard A. Epstein, *A Clear View of the Cathedral: The Dominance of Property Rules*, 106 YALE L.J. 2091 (1997); Robert P. Merges, *Of Property Rules, Coase, and Intellectual Property*, 94 COLUM. L. REV. 2655 (1994); Henry E. Smith, *The Language of Property: Form, Context, and Audience*, 55 STAN. L. REV. 1005 (2003).

6. Louis Kaplow & Steven Shavell, *Property Rules Versus Liability Rules: An Economic Analysis*, 109 HARV. L. REV. 713 (1996); *see also id.* at 732-33 n.61.

7. IAN AYRES, *OPTIONAL LAW: THE STRUCTURE OF LEGAL ENTITLEMENTS* (2005).

unique investments. For these smaller players and others relying on unique assets, though, property rules are more likely to protect their interests, thus helping them to coordinate.

II. DESTRUCTIVE COORDINATION

Of course, coordination also has a socially destructive side, which is too often overlooked in the IP literature. Liability protection in IP helps large companies engage in this undesirable collusion. Consider what might be called a “*keiretsu*” strategy for dealing with patents. The term *keiretsu* refers to the large conglomerates in Japan, where the patent system holds a great many weak patents and almost no strong ones. The transaction costs of litigation and conflict that arise in a system populated only by large numbers of low-value patents can be of real help to large companies like the *keiretsu*, because the system makes it easy for them to have many patent skirmishes while avoiding the threat of death blows. These skirmishes are beneficial for those fighting because they solve two practical problems impeding socially destructive coordination among large players: trust and antitrust.

First, they mitigate the trust problem by allowing the battling players to communicate with each other in a way that may be more forthright than a direct conversation. Where an opponent spends resources to fight, and yields to save resources, can say more than a direct conversation about what territory is most coveted. In the meantime, the extensive exchanges of documents and sworn deposition testimonies that are so infamously ingrained in litigation, especially in the U.S. system, further help those playing the *keiretsu* strategy to communicate vast quantities of more detailed information.

Second, these lawsuits mitigate the antitrust problem by allowing the *keiretsu* to share information with each other in a way that may be more protected from antitrust review than a direct conversation. Taking one territory while giving up another through a set of court battles and related settlements will more easily escape scrutiny—and will also more effectively mitigate the penalties imposed if any antitrust action is brought and won—than would a direct conversation to divide these territories. Ensuring that each deal is struck in front of a federal judge helps decrease both the likelihood of scrutiny by antitrust enforcers and the chance that a later judge or jury will side with those enforcers and determine that the conduct was so egregious as to merit a particularly harsh civil or criminal penalty.

Large players are particularly likely to succeed in this *keiretsu* strategy if they can be assured that only weak patents are available, because patents with strong property protection could become the slingshots by which the Davids take down the Goliaths. Conveniently for such large established firms, they

typically have the strong lobbying budgets and contacts to ensure, through the public choice process, that weak patents predominate, as discussed below.

III. PUBLIC CHOICE

Focusing on information costs, Smith argues that the greater cost-effectiveness of governance regimes explains the more regulatory nature of copyright versus patent law. Smith is correct in highlighting the ways in which the copyright regime is based more on flexibility and governance, while the patent regime is based more on predictability and exclusion. But such differences also may be explained in part through public choice theories that see government legislators, regulators, and judges not as acting solely in the interest of the public at large, but also as acting in their own self interest. Like market actors, these government agents may be particularly responsive to the desires of those able to offer significant political or financial capital.⁸

Taking seriously the notion that more is not always better, IP scholars should pay more attention to how the entitlements are structured rather than simply how many there are. Entitlements generally become easier for diverse market actors to use and tend to encourage economic growth and competition the more that those entitlements have attributes that facilitate predictable enforcement, ease of trade, bundling, and dividing, and the more that they force users of those entitlements to deal with private individuals. In contrast, when entitlements have attributes that can only be created or changed at the discretion of government actors and otherwise have fixed owners and contours, users of those entitlements have to deal more with government, which tends to concentrate wealth and power in political actors like regulators and influential constituents.

Under this view, it makes sense that the copyright regime, having been drafted and regularly redrafted with an eye towards balance among politically powerful constituents, has ended up featuring more flexible governance, and that the patent system promulgated through the 1952 Act, having been drafted with an eye towards coherence, ended up employing more predictable exclusion.

It also is no surprise that the governance regime of copyright is not always even flexible. For example, in promulgating immutable, rather than default,

8. See, e.g., George J. Stigler, *The Theory of Economic Regulation*, 2 BELL J. ECON. & MGMT. SCI. 3 (1971) (explaining how concentrated benefits lead to particular regulatory approaches); see also Stephen Haber, *Introduction: The Political Economy of Crony Capitalism*, in *CRONY CAPITALISM AND ECONOMIC GROWTH IN LATIN AMERICA: THEORY AND EVIDENCE*, at xi (Stephen Haber ed., 2002) (adducing data for “crony capitalism” theory of regulation).

rules for what constitutes fair use, preemption, and misuse, the copyright system protects established industries by leaving potential market entrants unclear as to what coordinating deals can be struck—if not certain that important deals cannot be struck.

Of course, the patent regime is not immune from these same public choice effects. Consider prior patent reform efforts focused on compromise, such as the reforms to better balance the interests of branded and generic drug companies.⁹ Consider also current patent reform efforts that are designed to make it easier for government decision makers to reject patents, usually on the basis of what is technically known as “prior art”—that is, whether the claimed invention was previously known. Such changes shift more discretion to government decision makers to decide what the prior art teaches. For example, under these proposals, Patent Office 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 that has long been required, such as documents and sample products.

This is perhaps where flexibility most starkly shows its Achilles’ heel. Allowing a government decision maker to determine what she thinks the state of the art was at a particular time in history gives her great discretion. Because large firms have fatter lobbying and litigation budgets than smaller innovators, such discretion converts the patent system into a tool for suppressing competition by making it much easier for big firms to tie up any patent owned by a small innovator. In contrast, the Federal Rules of Civil Procedure, which have been carefully developed to give the fairest process we have to offer, contain the tools of joinder, compulsory counterclaims, and preclusion, so as to avoid abusive and repetitive process, as well as summary judgment, to avoid long trials where there is no genuine issue of material fact.

IV. SCRUTINY OF THE PATENT ANTICOMMONS

Critics of property rights in patents focus on the transaction costs of economic markets and bemoan the purported problems of so-called upstream patents blocking downstream work, thereby creating an “anticommons,” especially in basic science. Smith is perhaps too generous in suggesting the extent to which questions about the patent anticommons remain open.

9. See, e.g., Drug Price Competition and Patent Term Restoration Act (Hatch-Waxman Act), Pub. L. No. 98-417, 98 Stat. 1585 (1984) (codified as amended at 21 U.S.C. § 355 (2000); 35 U.S.C. §§ 156, 271 (2000)); see also FED. TRADE COMM’N, GENERIC DRUG ENTRY PRIOR TO PATENT EXPIRATION: AN FTC STUDY (2002) (describing collusion problems with the Hatch-Waxman Act and collecting sources).

The dichotomy between upstream and downstream is false and narcissistic. These terms apply to anything to be bought and anything to be sold by any particular individual—who will of course have some interest in having everything she needs to buy be free and everything she wants to sell to be protected with property rights. The high flexibility of this dichotomy leaves it well-positioned as a tool for pernicious public choice pressure.

Moreover, there is no serious “patent thicket” or anticommons problem with a system in which patents are designed and treated like predictable property. If anything, the flexibility of governance approaches raises the problem more seriously, as Richard Epstein noted in his work on “permit thickets”¹⁰ and as the political economy literature notes when discussing “License Raj” in India.¹¹

Michael Heller’s important initial work on the anticommons problem sought to explain why so many storefronts in the postsocialist economies were left unused. Heller found that a large number of bureaucrats were able to deny permission for the space to be used and called the resulting underuse an “anticommons.”¹²

More recent work claiming an anticommons problem for patents mistakenly stresses this fragmentation of interest—that is, how many different people have a say over an asset’s use—as the key to the anticommons effect.¹³ More important than the number of people who have a say, however, is the type of people with a say and the type of say they have. By focusing on the number of patent permissions needed to use a technology, patent critics have ginned up arguments that the patent system creates an anticommons.

The U.S. patent system is fundamentally different from the unused storefronts of the postsocialist economy. As Epstein and Bruce Kuhlik have pointed out, where the permission of postsocialist bureaucrats was required,

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10. Richard A. Epstein, *The Permit Power Meets the Constitution*, 81 IOWA L. REV. 407 (1995).
 11. Sunita Parikh & Barry R. Weingast, *A Comparative Theory of Federalism: India*, 83 VA. L. REV. 1593, 1608 (1997) (“This system, known in India as License Raj, means that the center retains control over the distribution of permits and licenses for new areas of economic development through the relevant central ministry.”).
 12. Michael A. Heller, *The Tragedy of the Anticommons: Property in the Transition from Marx to Markets*, 111 HARV. L. REV. 621 (1998); see also *id.* at 624 (arguing that “[w]hen there are too many owners holding rights of exclusion [in a resource], the resource is prone to underuse”).
 13. See, e.g., Michael A. Heller, *The Boundaries of Private Property*, 108 YALE L.J. 1163, 1174-75 (1999) (describing how “the proliferation of intellectual property rights in upstream research may be stifling life-saving innovations further downstream in the course of research and product development”); Michael A. Heller & Rebecca S. Eisenberg, *Can Patents Deter Innovation? The Anticommons in Biomedical Research*, 280 SCIENCE 698, 700 (1998) (emphasizing fragmentation and arguing that it creates an anticommons in IP).

efforts by the bureaucrats to openly trade their permission for personal gain were likely to trigger various forms of legal liability for graft, bribery, public corruption, and the like.¹⁴ Patent rights are different, because a U.S. patent owner has incentives to engage in, not avoid, open transactions. Transactions over patents are not only allowable; they are important to monetizing the value of any asset like a patent that is constantly declining in value due to its limited statutory term and the threat of new competing technologies, especially given the limited ways to extract value from an asset that confers only a right to exclude and not a right to use. Patentees have a strong incentive to encourage use, not to block it. Furthermore, transactions over patents are also different from transactions with postsocialist bureaucrats in the way the law enforces patent-related transactions. Unlike the bureaucratic permissions of the postsocialist state over which transactions so often failed, patents are more clear and certain, and their owner can be easily discovered for free on the Internet.¹⁵ In addition, courts readily enforce whatever licenses or assignments are sold by the patentee, against her and those with whom she is in privity.

One could imagine that the number of patent permissions needed to get business done could lead to high prices and difficulties structuring the needed transactions. But even a quick scan of the Internet shows that this problem is not real. The typical laptop computer represents a bundle of thousands of patent and other IP permissions, yet the negotiation to buy one takes only a few clicks of a mouse and costs as little as \$1,000, if not less.

The proof is not just on the Internet or anecdotal. Several rigorous surveys of basic scientists have sought to determine as a matter of fact whether patents are interfering with their work, and their answer is a resounding “no.”¹⁶ Despite the existence of many patents in basic science with many diverse owners, there is no evidence that a significant number of scientists are held up by the need for patent permissions. Many are given express permission for free, and many others are in effect given free permission because the patents are not

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14. Richard A. Epstein & Bruce N. Kuhlik, *Navigating the Anticommons for Pharmaceutical Patents: Steady the Course on Hatch-Waxman* 4 (Univ. of Chicago Law Sch. John M. Olin Program in Law & Econ. Working Paper No. 209 (2d ser.), 2004), available at <http://ssrn.com/abstract=536322> (“But the state bureaucrat is not the owner of any asset whose value will remain unlocked unless he brings it to market.”).
 15. See U.S. Patent and Trademark Office, Assignment Search Page, <http://assignments.uspto.gov/assignments/q?db=pat> (last visited Sept. 21, 2007) (free searching of property interests in patents by several fields including patent number); U.S. Patent and Trademark Office, Full Text and Image Database Search Page, <http://patft.uspto.gov/netahtml/PTO/search-adv.htm> (last visited Sept. 21, 2007) (free searching to yield relevant patents).
 16. Timothy Caulfield et al., *Evidence and Anecdotes: An Analysis of Human Gene Patenting Controversies*, 24 NATURE BIOTECH. 1091 (2006) (reviewing data).

enforced against them. On other occasions, licensing arrangements are successfully negotiated using low transaction business models like the freezer programs for selling biological reagents. When needed, lawyers can fill the role of transaction cost engineers and develop additional business models to mitigate those anticommons effects that do arise.¹⁷

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17. See, e.g., F. Scott Kieff & Troy A. Paredes, *Engineering a Deal: Toward a Private Ordering Solution to the Anticommons Problem*, 48 B.C. L. REV. 111 (2006).