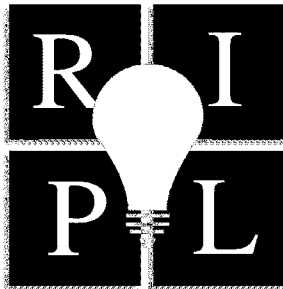


THE JOHN MARSHALL REVIEW OF INTELLECTUAL PROPERTY LAW



LEVELING THE PATENT PLAYING FIELD

PETER N. DETKIN

ABSTRACT

While large companies continue to thrive on pervasive technological advancements, small inventors have been limited by their inability to exploit their patents. Patent portfolio licensing created a pioneering way to increase the utility of patents; however, in practice this business model has typically favored powerful players in the technology industry. A new market has emerged based on innovative business models which favor small inventors. This market seeks to aggregate and distribute patents to companies that infringe on intellectual property or that want to draw on it as a source. By matching patent owners with patent users, this market may enable small inventors to have a greater stake in their technological efforts.

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LEVELING THE PATENT PLAYING FIELD

PETER N. DETKIN*

INTRODUCTION

In the United States, as in most technologically advanced nations, patent licensing occurs within a system that is imbalanced in favor of the biggest players.¹ Small companies and individuals have few good options for licensing their patents or developing their inventions without interference from infringers.² In recent years, media headlines have drawn attention to the attempts of some of these smaller entrants—some unscrupulous, some not—to seek payment for their patented ideas through threatened or actual litigation. The number of articles decrying a rise in patent lawsuits and an alleged boom in “patent trolls” has skyrocketed since 2001, when I first coined that term.³ Much less scrutiny, however, has been given to the overwhelming barriers that small inventors currently face in negotiating licensing deals, a situation that often leaves litigation as their only practical option.

A twenty-year career in the intellectual property field has allowed me to observe the structural problems with patent markets—and the ways they are exploited—from a wide range of perspectives. I have counseled inventors, entrepreneurs, and large corporations, and have represented clients who in some cases were aggrieved patent holders and in others were accused infringers. Within the past several years, as new business models for intellectual property have emerged in response to the failures in our patent system, the focus of my work has shifted to these novel strategies.

These market-based solutions offer great promise to solve some of those systemic failures, and so present a complement—and in certain cases an alternative—to the legislative reform that the Congress has been deliberating.⁴ Many of the patent law

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** Available at <http://www.jmripl.com>

¹ ADAM B. JAFFE & JOSH LERNER, *INNOVATION AND ITS DISCONTENTS* 15 (Princeton University Press 2004).

² *Id.*

³ *See, e.g.*, Zachary Roth, *Patent Troll Menace*, WASH. MONTHLY, June 2005, at 12 (asserting that patent trolls have caused great concern in the intellectual property community); Brenda Sandburg, *Trolling for Dollars: Patent Enforcers Are Scaring Corporate America, and They're Getting Rich—Very Rich—Doing It*, THE RECORDER, July 30, 2001 at 1 (explaining how the author coined the term “patent troll”).

⁴ John R. Thomas & Wendy H. Schacht, *Patent Reform in the 110th Congress: Innovation Issues*, CRS REP. FOR CONG., May 7, 2007, at 2, available at <http://openocrs.cdt.org/rpts/>

reforms under consideration would tilt an already unbalanced playing field to further benefit large corporations in the information technology industries.⁵ Certainly parts of the existing patent law can be improved.⁶ However, to arrive at a truly robust solution—not to mention a more just and enlightened one—tweaking the rules is not enough; we need to change the nature of the game altogether.

One such game-changing event is the emergence of new players in the patent licensing arena. Some of the new entrants are patent aggregators, who can offer small inventors better access to important commercial partners and can also enhance their bargaining power. Others are patent market makers that aim to reduce the time and expense of licensing transactions. Still others are investors who use an increasingly sophisticated set of financing tools to provide patent holders with resources on a par with alleged infringers.

These new players are deploying an ever-widening range of patent commercialization strategies to help level the playing field. They can marshal capital, expertise, connections, and economies of scale to knock down the barriers that have thwarted small inventors and offer alternatives to litigation, with all its expenses, delays, and uncertainties. Aggregators, distributors, and other new kinds of players will be key ingredients in the long-term construction of a rational and fully functional market for patent licenses. Much as venture capital and private equity matured into profitable business models, this new crop of pioneers—call them invention capitalists—will, with encouragement, find creative solutions that bring liquidity and stability to the IP industry.

I. NAVIGATING THE MAZE: SMALL INVENTOR REALITIES

It is not widely appreciated that a large fraction of important inventions in this country come from inventors working alone or in small companies or universities, rather than from big companies with huge research and development budgets. Indeed, during the 1990s forty-three percent of all patent applications filed in the U.S. by American inventors originated from small entities: individuals, small businesses, and non-profit organizations.⁷ Upon reflection, this fact should not be surprising. There are many more scientists and engineers in academia and in small companies than there are in big corporations. In addition, most corporate R&D focuses on developing incremental improvements to existing products, rather than on inventing new products altogether.

It is also not widely appreciated just how difficult it is for these small-scale inventors to navigate the bewildering maze of obstacles that stand between the act of

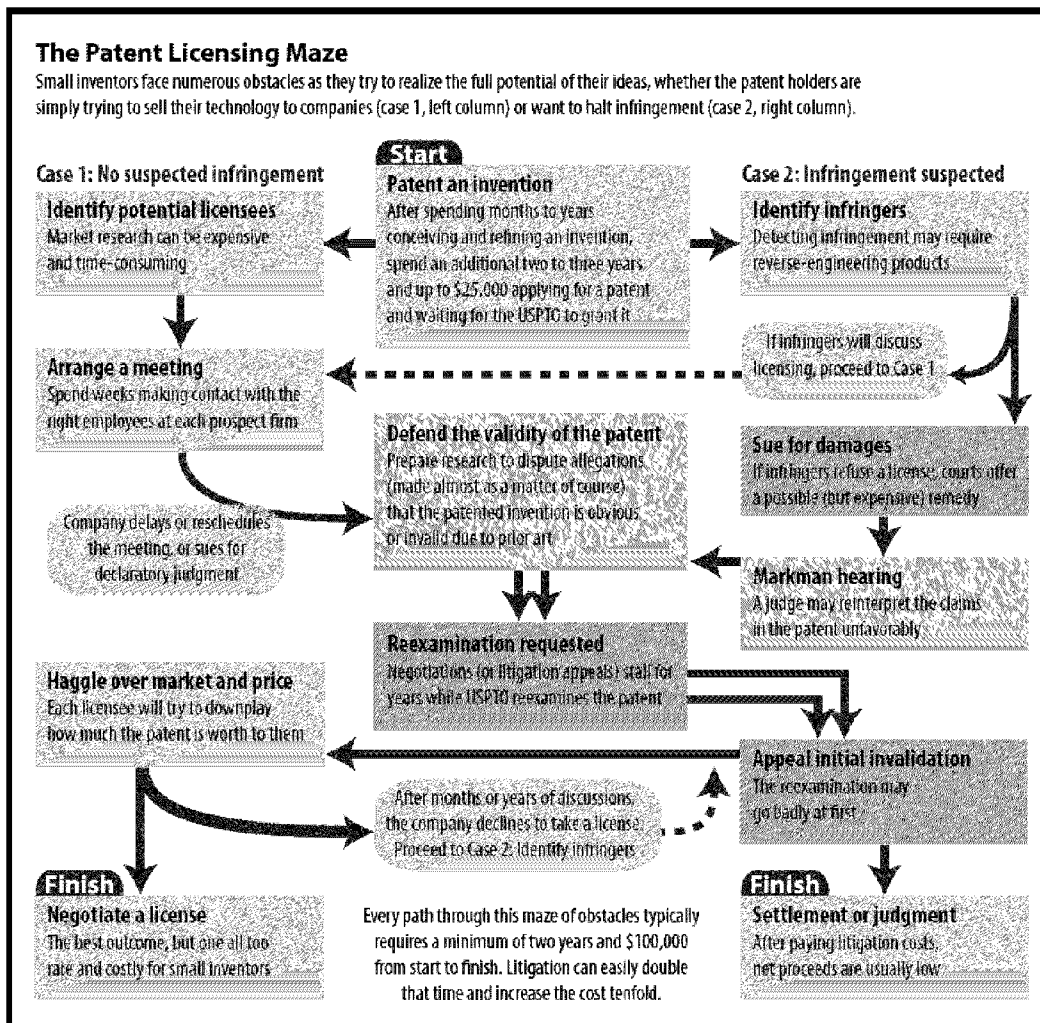
RL33996_20070507.pdf (giving an overview of the current patent reform issues being deliberated by Congress). *See also* Patent Reform Act of 2007, H.R. 1908, S. 1145, 110th Cong. (1st Sess. 2007).

⁵ F. Scott Kieff, *A Keiretsu Approach to Patents*, INTELL. ASSET MGMT., Feb./Mar. 2001, at 51 (discussing the mechanism behind this effect).

⁶ *See, e.g.*, JAFFE & LERNER, *supra* note 1, at 171 (detailing current problems and suggesting myriad reforms for the U.S. patent system).

⁷ E-mail from Jim Hirabayashi and Paul Harrison, U.S. Patent and Trademark Office, Patent Technology Monitoring Division (Feb. 2, 2005).

invention and its successful monetization (see figure for a somewhat simplified view of two trajectories through this maze).⁸ A patent typically takes two to three years from the date of filing to finally issue.⁹ With a newly minted patent in hand, an inventor sets out to find a big manufacturer to produce the invention or investors to bankroll his own business venture.¹⁰ That is when the real difficulties begin.



⁸ See JAFFE & LERNER, supra note 1, at 27 (detailing the process required to obtain a patent under the current system).

⁹ See United States Patent and Trademark Office, USPTO—General Questions, <http://www.uspto.gov/main/faq/> (last visited Sept. 4, 2007).

¹⁰ See generally, Vito J. DeBari, Note, *Internationalization of Patent Law: A Proposed Solution to the United States' First to File Debate*, 16 FORDHAM INT'L L.J. 687, 711 (1993) (discussing the argument that small inventors are hurt by the first to file system because they need additional time to attract investors). See also, Matthew P. Donohue, Note, *First to File vs. First to Invent: Will Universities Be Left Behind?*, 21 J.C. & U.L. 765, 776 (1995) (stating that adversaries of "first to file" rule claim that it benefits corporations).

Consider the example of Dr. James Cunningham, a veteran chemical and electrical engineer who began his career at Texas Instruments in 1961.¹¹ Over the years, Cunningham accumulated 46 patents as an employee at six semiconductor companies and as a consultant to many more. Many of his inventions boosted the speed of computer microprocessors by working around limitations of the metals used to make circuit paths inside the microchips. In the 1990s, Cunningham came up with several ideas that made it easier for microprocessor companies to switch from aluminum circuitry to copper, which resulted in tremendous improvements in processor performance. Five of these copper-related ideas received patents.

Dr. Cunningham showed his patents to six major microchip companies and a semiconductor equipment company in the expectation that they would negotiate a fair license to use his inventions. In a perfect world Dr. Cunningham would be compensated for his time, talent, and investment; the manufacturers would get a technology to advance their business; and the public would get better computers. It should be a win-win-win situation. Unfortunately, that is not how the system works.

The licensing operations of big corporations are quite inscrutable to outsiders. Inventors often find it very difficult just to determine who in the company is the right person to speak to about a license. That was the case for Dr. Cunningham, even though he had worked in the field for decades.

From an inside perspective, corporate license negotiators are typically busy people, and some licensing staff tend to regard solitary inventors as crackpots or trolls until proven otherwise. Corporate employees are driven primarily by their perceived duty to limit the licensing fees they pay, not by a company's obligation to pay for intellectual property of others that it uses. They accomplish this goal by deploying a number of tactics to whittle down an inventor's patience and his price. Initial contact, for example, is usually followed by a seemingly interminable round of telephone tag. One of my colleagues boasts that his first negotiating ploy is to avoid any meeting for at least two months—and then to reschedule it at the last minute.

That first meeting, when it finally occurs, is typically a prelude to anywhere from six to eighteen months of discussion and argument. Discussions about prior art can chew up months of meetings, as can debates about how the invention might find use in the marketplace. Manufacturers will often dispute the validity and enforceability of the patents. Even if they are already using the patented technology, they will rarely acknowledge that fact, thereby forcing the inventor to reverse-engineer the product in question (often at considerable expense) to answer some basic questions.

Large companies can also, of course, devote far greater resources to these discussions than any small inventor such as Dr. Cunningham can muster. Corporate lawyers can easily assemble market research that the inventor must dig deep to find, for example. And they have access to engineers who can help them understand the workings of the prior art and any infringing products (the better to obfuscate the infringement). The inventor, in contrast, must rely almost exclusively on his own research from the outside looking in.

¹¹ As discussed further *infra*, Dr. Cunningham has a relationship with Intellectual Ventures, the author's company.

After dragging out the process, the company often simply declines to license the patent under any reasonable terms. Five of the seven manufacturers that Dr. Cunningham approached turned him down.

When negotiations break down, an inventor is left frustrated and, at least until recently, with few options other than engaging a law firm to haul any infringer into court.¹² The media frenzy surrounding a few high-payout patent suits, such as NTP's \$612.5 million settlement from Research in Motion in 2006, along with intense lobbying efforts by a few large companies, could give the impression that little guys often win at high stakes litigation.¹³ In fact, they hardly ever do.

Big players have a distinct advantage in a lawsuit because they can afford the multimillion-dollar legal fees and the lengthy delays, which typically run three to seven years for patent suits that reach a judgment on the merits. Even worse than the interminable delays, most inventors are loathe to sue because it distracts them from what they truly love—inventing! For these reasons, Dr. Cunningham elected not to turn to the courts for justice.

He should have been paid fairly, and fairly quickly, for his invention so that he could turn his attention to inventing the next great thing. That is what our system is supposed to encourage.¹⁴ Yet under our current system, that rarely happens.

II. PORTFOLIO LICENSING—A BOUNTIFUL OPPORTUNITY...IF YOU'RE IBM

Although patent litigation gets all the ink, the market opportunity is actually much larger for patent licensing, which happens every day. There are a few proven models in technology patent licensing.¹⁵ Unfortunately for Dr. Cunningham and other small inventors of the world, there is no place for them in any of these models.

The first proven model is exemplified by the extensive licensing operations of giant companies with large, broad portfolios, such as IBM, Lucent, and Thomson. These corporations exploit their prodigious capital and market presence to execute licensing programs that extract hundreds of millions in revenue from hundreds to thousands of licensees.¹⁶ In a few cases, the licensing effort is actually the most profitable part of the company.¹⁷

¹² See generally ROBERT P. MERGES ET AL., *INTELLECTUAL PROPERTY IN THE NEW TECHNOLOGICAL AGE* 163–64 (Aspen Publishers 4th ed. 2006) (discussing the different types of patent litigation).

¹³ Will Rodger & Matt Schruers, *RIM Settlement Shows Patent System Broken, CCIA Says*, COMPUTER & COMM'N INDUS. ASS'N, Mar. 6, 2006, http://www.cciainet.org/artmanager/publish/2006/RIM_Settlement_Shows_Patent_System_Broken_CCIA_Says.shtml (last visited Sept. 8, 2007).

¹⁴ See JAFFE & LERNER, *supra* note 1, at 7 (asserting that “governments have long recognized the broad social value generated by new technologies, and hence have sought to reward inventors of important technologies”).

¹⁵ R. Polk Wagner & Gideon Parchomovsky, *Patent Portfolios*, 154 U. PA. L. REV. 1, 31 (2005) (discussing different ways a patent portfolio may be leveraged, including different licensing arrangements).

¹⁶ See JAFFE & LERNER, *supra* note 1, at 14 (explaining that many large companies have begun licensing their technologies for higher profits and Texas Instruments netted close to \$1 billion annually from patent licenses and settlements).

¹⁷ See *id.*

A second successful model has been demonstrated by companies that have narrow but deep portfolios, such as Qualcomm (cellular telephony), Rambus (memory chip designs), and Texas Instruments (semiconductor technology).¹⁸ Here, too, well-capitalized licensing programs tap hundreds of licensees for IP revenues in the millions of dollars.¹⁹

The third well-established model is the corporate patent pool: a collection of patents drawn from a group of big companies, usually in support of a technology standard, such as MPEG video or DVDs. These pools are dominated by the founders' patents and are backed with ample cash to enforce licensing.²⁰ Members of the pool generally cross-license each other's patents in deals that reflect the relative strength and impact of each company's overall portfolio.²¹ Small-scale inventors are typically shut out of these pools.²² The result is effectively a kind of IP cartel that, holding hundreds or thousands of valuable patents, can turn market dynamics in its favor.²³

Academic studies have come to the same conclusion that experience in the real world shows: the access and negotiating strength of a large portfolio provides a powerful market advantage.²⁴ Although somewhere between one third and one half of all issued patents originated with small inventors, few manufacturers can claim that they pay a third or more of their license fees to small entities. The vast majority of licensing revenues are collected by large firms.

Even a small inventor as prolific as Dr. Cunningham has far too few patents to set up a portfolio licensing operation using these conventional models. Nor does he have the credibility of established technology companies or the market clout of patent pools. Little wonder, then, that having been rebuffed in good-faith negotiation attempts, shut out of the portfolio game, and frustrated by often blatant poaching of their supposedly protected ideas, some patent holders see no choice but to swing for the fences in a high-stakes lawsuit. Those who follow this route are often derided as "patent trolls" and lumped in with less scrupulous patent holders that use serial lawsuits to extract nuisance-value settlements.²⁵

¹⁸ About Qualcomm: Enabling the Wireless Industry, <http://www.qualcomm.com/about/index.html> (last visited Aug. 30, 2007) (noting that Qualcomm currently has over 6,000 patents and patent applications in CDMA (code division multiple access) and other related cellular technologies); Press Release, Rambus, Inc., Rambus Achieves 500th Patent Milestone (June 1, 2006), http://www.rambus.com/us/news/press_releases/2006/060601.html (last visited Sept. 8, 2007) ("Rambus' growing patent portfolio includes fundamental inventions in the area of memory design, high-speed interfaces, package layout, and system design."); Texas Instruments: TI Fact Sheet, <http://www.ti.com/corp/docs/company/factsheet.shtml> (last visited Aug. 30, 2007) (displaying that semiconductors accounted for \$13.7 billion out of a total of \$14.3 billion in revenue in 2006).

¹⁹ See JAFFE & LERNER, *supra* note 1, at 14.

²⁰ Steven C. Carlson, Note, *Patent Pools and the Antitrust Dilemma*, 16 YALE J. ON REG. 359, 368 (1999).

²¹ See also *id.* ("Pools can also be formed in advance of litigation to preclude likely suits and to promote the rapid development of technology.")

²² No individual inventors, for example, participate in the large pool that enforces patent rights to the MPEG video compression technologies.

²³ See Carlson, *supra* note 20 at 372 (stating that the approval from the Department of Justice to allow the MPEG patent pool validated "a collectively enforced monopoly over a fundamental communications standard").

²⁴ See Wagner & Parchomovsky, *supra* note 15.

²⁵ Raymond P. Niro, *Who is Really Undermining the Patent System—"Patent Trolls" or Congress?*, 6 J. MARSHALL REV. INTELL. PROP. L. 185 (2007). While Mr. Niro's article is otherwise

While I coined the term “patent troll,” I refrain from using it today. It has become too emotionally charged and too often hurled carelessly as an epithet to disparage just about every kind of plaintiff in a patent suit.²⁶ In place of name-calling and contentious debate over the symptoms of imbalances in the market for patents, we need to address their underlying cause.

III. NEW BUSINESS MODELS

Emerging models of patent monetization will help the patent system to regain its balance. These new business models are being pioneered primarily by startups that are not product companies (at least not yet) and that share several other characteristics as well. They recognize the value of the intellectual property held by small inventors. They are keenly aware of the inefficiencies endemic in the traditional markets for licenses to such patents. And they have developed the ability to garner enough resources to work productively with corporations that either infringe small inventors’ intellectual property or want to draw on it as a source for innovation.²⁷

The past five years have seen a wide range of approaches to patent aggregation and distribution that promise to rectify many of the inefficiencies of the patent licensing market. ThinkFire, ipValue Management, and other licensing houses were among the first such firms founded.²⁸ These consultants principally work with large companies to help them evaluate and exploit their IP assets.²⁹ Their corporate clients typically have a healthy patent portfolio built up over the course of many years, but simply do not have the in-house expertise or resources to exploit this valuable resource.³⁰

Ocean Tomo, launched in 2003, has established itself as a primary organizer of patent auctions. Although the auction approach got off to a slow start, Ocean Tomo now hosts four auctions each year. Its auction this past April saw the sale of some

replete with colorful descriptions of the case underlying the derivation of the “troll” phrase, he curiously omits an important fact—all of his claims were tossed on summary judgment, a ruling upheld on appeal. *See* TechSearch, LLC v. Intel Corp., 286 F.3d 1360, 1363, 1381 (2002) (concluding that the district court properly granted Intel’s motion for summary judgment of non-infringement and affirming that finding), *cert. denied*, 537 U.S. 995 (2002).

²⁶ Jennifer Kahaulelio Gregory, *The Troll Next Door*, 6 J. MARSHALL REV. INTELL. PROP. L. 292, 292–93 (2007).

²⁷ James F. McDonough III, *The Myth of the Patent Troll: An Alternative View of the Function of Patent Dealers in an Idea Economy*, 56 EMORY L.J. 189 (2007).

²⁸ *See* Eric W. Pfeiffer, *Mine Games*, FORBES.COM, June 24, 2002, <http://members.forbes.com/asap/2002/0624/060.html> (last visited Aug. 30, 2007) (stating that two new startups, ipValue and ThinkFire, created a new industry focused on assisting other corporations to manage the value of their patents). *See also* ipValue Management, Inc. Overview, <http://www.ipvalue.com/company/index.html> (last visited Aug. 30, 2007) (stating that ipValue was founded in October 2001 to assist companies in achieving the greatest value from their IP portfolios).

²⁹ *See, e.g.*, ipValue Management Inc. Overview, <http://www.ipvalue.com/company/index.html> (last visited Aug. 30, 2007) (“To date, ipVALUE has delivered over \$250M in transactions on behalf of its partners and has facilitated numerous strategic cross-licensing deals.”).

³⁰ *See* Peter Spours, *How to Exploit Patents for Profit*, IP REVIEW, Spring 2006, at 26.

180 patents for more than \$11 million.³¹ These patents came from individual inventors, universities, and large companies such as Iomega.³² Ocean Tomo also has developed a stock index fund (AmEx: OTP) designed to track the patent strength of 300 constituent companies.³³ Investors in the fund thus essentially invest in companies based on the value of their intellectual property assets.³⁴ Over the longer term, Ocean Tomo is working with others to create a centralized IP exchange in Chicago, called the IPX, at which patents can be assigned values and traded in much the same way that other securities are today.³⁵ Current plans call for the IPX to begin trading in 2010.³⁶

Acacia Research and Mosaid, both publicly traded corporations, represent a third approach. They have been purchasing patents and small portfolios, and then asserting them individually, rather than as part of a very broad portfolio. Acacia, for example, was by mid-2007 running more than two dozen licensing programs.³⁷

Privately owned firms, such as Rembrandt IP and Altitude Capital, have been investing in companies that own compelling intellectual property assets but need financing for later-stage development or for litigation.³⁸ These players take on a role analogous to that of private equity firms by providing “staying power” for businesses during litigation or licensing programs.³⁹

Intellectual Ventures, the company I co-founded, is taking yet another tack.⁴⁰ We are assembling portfolios of patents, some of which we purchase from small inventors and large companies, and some of which we file on our own inventions. We couple the portfolios with careful analysis and research to create a rational licensing model for managing invention rights in markets where products rely on multiple technologies from multiple sources.

A firm such as ours can promote inventions in several ways. First, we present corporate license negotiators with a carefully pre-screened set of patents. Because the negotiators know that the patents are legitimate and relevant to their operations, the parties can come to terms much more quickly. Second, we have greater expertise in license negotiation and patent defense than do most inventors. Overall, we bring to

³¹ Sandra Upson, *Live Patent Auctions Tantalize Inventors*, IEEE SPECTRUM, June 11, 2007, <http://www.spectrum.ieee.org/jun07/5173> (last visited Sept. 8, 2007).

³² *Id.*

³³ See Bennett Voyles, *A New Way to Tap into the Next Big Idea*, ON WALL STREET, Feb. 1, 2007, <http://www.onwallstreet.com/article.cfm?articleid=3513> (last visited Sept. 8, 2007).

³⁴ See *id.*

³⁵ See IPXChicago, <http://www.ipxchicago.com> (last visited Aug. 30, 2007).

³⁶ See *id.*

³⁷ Press Release, Acacia Research Corp., Acacia Technologies Purchase 3 Patent Portfolios with 36 Patents Relating to Flash Memory, Computer Graphics and Dram from Alliance Semiconductor (June 29, 2007), <http://www.acaciaresearch.com/pr/062907FlashMemory.pdf> (last visited Sept. 8, 2007).

³⁸ John R. Allison et al, *Software Patents, Incumbents and Entry*, 85 TEXAS L. REV. (forthcoming 2007), available at <http://ssrn.com/abstract=989592> (last visited Sept. 8, 2007).

³⁹ See IAM Blog, <http://www.iam-magazine.com/blog/Detail.aspx?g=af08af3d-1b41-4763-b9e3-c4e1851bb270> (Feb. 9, 2007) (last visited Sept. 8, 2007).

⁴⁰ See *generally* Intellectual Ventures, <http://www.intellectualventures.com/> (last visited Aug. 30, 2007) (“Through acquisitions and partnering, we can create more comprehensive portfolios of inventions. A broader portfolio benefits potential clients by providing more inventions from a single source, and it benefits inventors by giving them a greater chance of commercial success by being part of a more comprehensive offering.”).

the table a unique mixture of technical and business skills; most players in patent negotiations are more specialized and do not have this broad range of skills available. Finally, the work we do frees inventors from wasting their time at a task for which they are typically unenthusiastic and poorly suited.

Dr. Cunningham, for example, sold his suite of semiconductor patents to Intellectual Ventures in exchange for a lump sum payment in a transaction that took far less time than a typical licensing negotiation. Having received a fair return on his ideas, he can now get back to what he enjoys, while we enhance the value of his inventions by bundling them with others into a package that is much more attractive to microchip producers than his patents would be on their own.

This approach improves market efficiency not only for the inventor, but also for the manufacturer, in much the same way that real estate brokers do. If you want to build a skyscraper on a city block that is currently covered with multiunit flats, you could hold hundreds of negotiations to buy out the owners of the existing condos and apartments, or you could negotiate one lease with a veteran real estate developer who will deal, in turn, with those owners. The latter is far more efficient.

Newly conceived technologies and the patents that protect them are, needless to say, quite a bit more complex and diverse than are deeds to real estate. So those who would serve as brokers in this area must assemble a set of knowledge that is richer in some ways and more integrated than that of even the largest manufacturing conglomerates.

Each of the new business models described above plays a role in matching patent owners with patent users, allowing inventors and their business partners to be fairly compensated for their invention, providing companies with an efficient means to license or purchase inventions they are using at a fair price, and improving the speed and breadth of the public's access to new products and services—all while ensuring that bad patents do not receive unreasonable compensation or otherwise gum up the works.

No doubt this new market will face many challenges as it emerges. But we should encourage pioneers and policymakers to create solutions that restore balance to the patent playing field. In a fair game, some will win and some will lose—but more will play, and all of society will be the richer because of it.