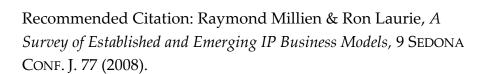
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A Survey of Established & Emerging IP Business Models

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A Survey of Established & EMERGING IP BUSINESS MODELS

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I. Introduction

The last couple of years has brought about rapid and dramatic changes in American patent law. The impetus for this change has come not only from the usual sources - the U.S. Court of Appeals for the Federal Circuit and the U.S. Patent and Trademark Office, but also as a result of an unprecedented combination of increasing attention on patent cases by the U.S. Supreme Court and patent reform debate in Congress. Against the backdrop of this new patent environment, we now survey and compare the various existing and emerging business models within the evolving intellectual property (IP) marketplace. The concepts and theories presented are meant to be thought provoking. They are not, however, intended to be an all-inclusive encyclopedia of existing and emerging IP business models or the IP marketplace as a whole.

II. WHAT ARE THE DIFFERENT IP BUSINESS MODELS?

A. The Evolving IP Marketplace

Over the last three decades, there has been a shift from a labor-driven economy to a knowledge-based economy. Illustrative of this fact is that, for the first time since the industrial revolution, the percentage of American workers employed in manufacturing has fallen below 10% and may be as little as 5%.2 Consequently, intangible assets produced by a more highly-skilled and services-oriented workforce have emerged as the most powerful asset class, overtaking traditional capital assets such as real property, plant and equipment. Independent research has demonstrated that nearly 80% of the value of a U.S. publicly-traded company now comes from intangible assets.³ This is an inversion from 30 years ago when only 20% of a company's value came from intangible assets, and is significant because the largest component (or subset) of intangibles is intellectual property. Further, data showing that small businesses generate 13-14 more patents per employee than large firms⁴ would empirically suggest that this 80% figure applies, if not more so, to smaller (and private) companies as well.

The identification of this "80/20 inversion" is not new. Alan Greenspan recognized, in 2003, that: "In recent decades . . . the fraction of the total output of our economy that is essentially conceptual rather than physical has been rising. This trend has, of necessity, shifted the emphasis in asset valuation from physical property to intellectual property and to the legal rights that inhere in the latter."5 In fact, one scholar noted as far back as 1992 that "IP rights - especially those in the form of patents - will represent the most significant form of wealth in the new millennium."6

An earlier version of this article was presented at the Eighth Annual Sedona Conference On Patent Litigation, Sedona, AZ (Oct. 12, 2007). Industrial Metamorphosis: Factory Jobs Are Becoming Scaree. It's Nothing To Worry About, The Economist 69 (Sept. 29, 2005). Ned Davis Research for Ocean Tomo, LLC, http://www.oceantomo.com/index_or300.html (Last visited Jan. 3, 2008). CHI Research, Inc., Small Serial Innovators: The Small Firm Contribution to Technical Change (Feb. 27, 2003) at 3.

Alan Greenspan, Remarks at the 2003 Financial Markets Conference of the Federal Reserve Bank of Atlanta, Sea Island, Georgia (April 4, 2004).

James W. Ely, Jr., The Guardian of Every Other Right: A Constitutional History of Property Rights 6 (1st ed., Oxford University Press, 1992).

We are no longer in the era when "feudal lords" (i.e., a small handful of large "old economy" companies) controlled all the (intellectual) property and those who were without property had no rights. In those times, the legal landscape defining the rights associated with IP did not exist and those without (intellectual) property had virtually no say in the licensing and enforcement of such rights.⁷ The IP marketplace has matured (and continues to do so) and in 2006, IP-related damage awards and settlements in the U.S. totaled \$3.4B8 and global IP licensing revenue approached \$90B as early as 2003.9

B. Established IP Business Models¹⁰

Given that IP feudal lords no longer rule, one can say that we are now in an era of "IP for the masses," where the IP marketplace operates according to the Golden Rule — those with the gold (i.e., IP rights) can now make the rules.

Necessarily, the evolving IP marketplace has been accompanied by a change in the players within the marketplace. Traditionally, in the "feudal lords" period, such players were overwhelmingly patent lawyers and large patent owners (with a few smaller or individual players making the occasional appearance and splash). Today, however, the cast of players has grown. That is, this new era is characterized by the rise of "market-maker" intermediaries who seek to make IP a liquid asset class and, of course, profit from it.

Who are these new players? Well, these new players are generally referred to as "IP intermediaries" because they are neither the IP creators nor the IP "consumers" (e.g., licensees and purchasers).11 These intermediary business models, however, attempt to perform one or more services or offer one or more products that connect the IP creators and the IP consumers. More specifically, these IP business models include:

Patent Licensing and Enforcement Companies (PLECs)

Description

These are entities that own one or more patent portfolios, attempt to license them through targeted letter-writing campaigns, and then file patent infringement suits against those letter recipients who refuse to enter into non-exclusive licenses. Those that practice this business model are often called (rightly or wrongly) "patent trolls." In some cases, the PLECs have purchased the patents they are asserting and, in other cases, the PLEC entity is actually founded by the inventor(s) of the asserted patent portfolio. (Although in the latter case, such entities are not technically "intermediaries".) PLECs therefore generate revenue both from license fees and from the annual \$3.4B IP awards and settlements market.

Exemplary Players¹²

Acacia Technologies LPL C2-GTI NTP Fergason Patent Prop. Plutus IPCom (Germany) RAKL.

TPL Group/Alliacense **IpVenture**

Lemelson Foundation TPL, Inc.

See James E. Malackowski, The Intellectual Property Marketplace: Past, Present, and Future, 5 J. Marshall Rev. Intell. Prop. L. 605, 606 (2006). Marius Meland, IP Litigation Yielded \$3.4B In 2006: Survey, IPLaw360 (Dec. 29, 2006).

S. Athreye and J. Cantwell, Greating Competition? Globalisation And The Emergence Of New Technology Producer, Open University Discussion Papers, Economics, No. 52 (2005); see also S. Athreye & J. Cantwell, Creating Competition? Globalisation And The Emergence Of New Technology Producers 36(2) Research Policy 209 (2007).

We refer to those IP business models in existence as of this writing as "established" even though such models may have had their birth within the

last few years (if not months) of this writing.

last rew years (it not months) of this writing.

See Malackowski, supn note 11 at 606-07.

The listing of players for each business model is exemplary and not meant to be exhaustive. Further, entities may be listed as exemplary players under one or more business models due to their varied service offerings and activities. Lastly, the authors do realize that attempting to describe the various established IP business models is an exercise in categorization which unfortunately often leads to the "limitization" of the named entities.

See Raymond P. Niro and Paul K. Vickery, The Patent Troll Myth, 7 The Sedona Patent Journal at 153 (Fall 2006) (explaining the origin of the term "patent troll" and defining it as "somebody who tries to make a lot of money off a patent that they are not practicing and have no intention of

practicing and in most cases never practiced.").

Model

Institutional IP Aggregators/Acquisition Funds

Description

These are entities that operate in a sort of private equity fashion. That is, they typically operate as general partners of a limited partnership and raise money either from large technology companies or from the capital markers (institutional investors and sometimes high-net-worth individuals). The investors are promised above average ROI from selective, targeted or large-scale patent purchases with the goal of instituting licensing programs and/or employing various arbitrage strategies.

Exemplary Players¹²

Coller IP Capital (UK) Intellectual Ventures RPX

<u>Model</u>

IP/Technology Development Companies

Description

These are entities that engage in R&D activities and produce IP (including both patents and know-how) much like traditional operating companies; however, the developed technology is not used to manufacture products in the form of physical goods. Rather, the IP associated with the technology is licensed by these entities to one or more operating companies so that the operating company may bring products and services employing the technology and IP to the marketplace. Often the IP creator provides consulting services to the licensee to integrate the technology into the licensee's products or processes. Thus, these firms are not true intermediaries between patent owner and patent licensee. They are intermediaries, however, in the sense that they form a link between the creator of the patented technology and those who commercially deploy it in the form of products and services. (In some instances, however, these companies choose to produce and sell products embodying the IP they develop themselves, as well as licensing others.)

Exemplary Players¹²

AmberWave Qualcomm
ARM (UK) Rambus
InterDigital Tessera
MIPS Wi-LAN

MOSAID

Model Licensing Agents

Description

These are entities that function as intermediaries by attempting to assist IP owners in finding licensees. Entities that function under this business model often call themselves "IP advisory," "IP consulting," "IP management" or "technology transfer" firms. While the amount, quality and depth of services vary, to some degree in shape or form, they all earn retainer and/or success fees by assisting patent owners find licensees. Accordingly, these entities may function more like traditional consultants where the patent owner stays very involved in the licensing process, or they may function more like IT companies where the patent owner essentially "outsources" patent monetization and is not involved in day-to-day licensing operations, but still collects a majority of any licensing revenue. The various licensing agents also differ as to whether they engage in "carrot" licensing or "stick" licensing activities. In the latter case, these entities tend to engage in activities that start to closely resemble the PLEC business model.

Exemlary Players 12

Fluid Innovation General Patent
Ipernica (Australia)
IP Capital Group
IP Investments Group

Model

Litigation Finance/Investment Firms

Description

These are entities that are a cross between IP Acquisition Funds and PLECs. That is, like IP Acquisition Funds, they operate as general partners of a limited partnership and raise money from large institutional investors and high-net-worth individuals. Like PLECs, however, their stated goal is to acquire a financial interest in patent portfolios for assertion. The assertions typically take the form of targeted letter-writing campaigns, followed by patent infringement suits against those letter recipients who refuse to enter into non-exclusive licenses. Variances in the model (and from a PLEC) include the level and nature of ownership or participation (*e.g.*, equity vs. debt) that the firm takes in the patent portfolios being asserted or in the patent owning entity itself (typically an LLC formed for the purpose of assertion).

Exemplary Players¹²

Altitude Capital NW Patent Funding IP Finance Oasis Legal Finance Juridica (UK) Rembrandt IP Mgmt.

Model IP Brokers

Description

These are entities that function essentially the same as Licensing Agent model discussed above. The key distinction, however, is that they seek to assist owners of IP (primarily patents) in finding buyers rather than licensees. Also, unlike licensing agents they operate both on the sell-side and the buy-side. In the latter case they often assist technology companies in acquiring patents having "strategic" (i.e., defensive) value vis-à-vis their competitors. Thus, a typical engagement between an IP Brokerage firm and an IP owner is shorter than a Licensing Agent firm. This is because once the IP is sold, the IP Broker takes a percentage of the sale as a success fee and the engagement is done. (It is a "one hit and done" engagement.) Thus, there is no opportunity for recurring revenue (unless the client later decides to sell additional IP). In contrast, buy-side brokerage engagements can continue indefinitely as the broker's client strengthens and extends its IP position over time. Entities that function under this business model also often call themselves "IP advisory," "IP management" "IP merchant banking" or "technology transfer" firms. While the amount, quality and depth of services vary, in some shape or form, however, when representing a seller, they all prepare a "pitch package," identify potential buyers and earn retainer and/or success fees by actually assisting IP owners in negotiating the terms and conditions of the sale agreement with buyers. These entities may function more like traditional consultants where the IP owner stays very involved in the process, or they may function more like IT companies when the IP owner essentially "outsources" the monetization of the IP and is not involved in the day-to-day sale efforts, but still collects a majority of the sale revenue (minus the Broker's commission and, in some cases, the Broker's expenses). In contrast, buy-side, brokerage engagements almost always involve a close working relationship between buyer and broker.

Exemplary Players¹²

Bramson & Pressman Lava Group

Fairfield Resources NextTechs Technologies

GTT (Israel) Ocean Tomo
ICAP PatentBridge
Iceberg Trans. (UK) PCT Capital
IPEG (NL) Pluritas

Inflexion Point Semiconductor Insights IP Harbor Sherwood Partners

IP Trade (Israel) ThinkFire iPotential Yet2.com

Model
IP-Based M&A Advisory Firms

Description

These are entities that operate in a traditional investment banking model – advising technology companies in their merger and acquisition (M&A) activities and earning fees based on the value of the entire deal (or apportioned according to the value of the IP within the deal). Whether doing "sell side" or "buy side" engagements, these entities obviously focus on the IP assets within contemplated corporate transactions where IP is driving, or a major component of, the transaction. Services provided by such entities include, IP due diligence, consultation on the integration of IP assets and operations as a result of M&A activity and IP deal structuring and general consultations related to contemplated investments, mergers, acquisitions, divestitures, joint ventures and other corporate transactions. "Second generation" "IP investment banking" involves not just maximizing IP value in the context of a "traditional" corporate acquisition or divestiture but actually sourcing the transaction based, at least in part, on IP considerations. Here the IP investment banker helps to identify potential corporate acquisition targets or acquirors with complimentary IP assets.

Exemplary Players¹²

Analytic Capital New Venture Partners

Blueprint Ventures PCT Capital Inflexion Point Pluritas

ipVA

Model
IP Auction Houses

Description

These are entities that are attempting to do for the patent marketplace what famed London auction houses Christie's and Sotheby's did for the antique and art marketplace. That is, these entities are auction houses that hold multi-lot, live auctions for patents with the intent of providing a marketplace for facilitating the exchange of such historically illiquid assets. While there are various auction formats and structures (English, Dutch, *etc.*), such auctions enable sellers to offer one or more patents according to a pre-determined set of terms and conditions and allows the auction house to charge listing fees, attendance fees, buyers' premiums and/or sellers' commissions. Also, other entities aim to be the "eBay of patents" by offering online patent auctioning services.

Exemplary Players¹²

FreePatentAuctions.com IPA GmbH IPAuctions.com Ocean Tomo

Model

On-Line IP/Technology Exchanges, Clearinghouses, Bulletin Boards, and Innovation Portals

Description

These are entities that function like the business-to-business (B2B) web sites that became the rage during the late 1990's dot com boom. These entities, however, offer web platforms and interfaces specialized for patent and other IP assets. Essentially, this model can be thought of as online classifieds like Craig's List, but for IP. (Using the analogy of an online version of the Licensing Agent or Patent Broker IP business model would also be appropriate.) Within the model, there are variances such as whether listing fees are charged to patent owner/sellers in addition to, or versus, back-end fees for successful patent sale or licensing transactions. Additional variances include whether these sites are public and browseable for free, or whether they are private, "member's only" sites that require registration (and presumably a registration/membership fee). Some of t hese sites also offer forums, bounties, "challenges," and idea exchange platforms that aim to spur innovation and thus create new IP.

Exemplary Players¹²

InnoCentive Patent Bid-Ask (Ocean Tomo)
IP Exchange Intl (Ocean Tomo) The Dean's List (Ocean Tomo)

NineSigma Tynax
Novience Yet2.com
OpenIP.org Virtual Ventures

Model IP-Backed Lending

Description

These are entities that provide financing for IP owners, either directly or as intermediaries, usually in the form of loans (*i.e.*, debt financing), where the security for the loan is either wholly or partially IP assets (*i.e.*, IP collateralization). Thus, these parties often function as intermediaries between borrowers and commercial lending institutions, such as banks. Unlike traditional bankers who focus on accounts receivable and tangible assets, however, these IP-backed Financiers take into account a borrower's or target company's (potential or actual) IP assets in structuring a financing transaction. Variances in this model include entities who deploy their own capital (and thus resemble IP investment firms) or who maintain a network of technology- or industry-specific investors to whom they refer IP owners (and thus resemble patent brokers).

Exemplary Players¹²

IPEG Consulting BV Ocean Tomo/Perot Fund Paradox Capital

<u>Model</u> Royalty Stream Securitization Firms

Description

These are entities that counsel, assist and/or provide capital to patent owners performing IP securitization financing transactions (which resemble the more common mortgage-backed securities). In such transactions, the patent owner sells the patents underlying the transaction to a bankruptcy remote entity (a "BRE"), and the BRE grants a license back to the patents to the original patent owner. The BRE in turn issues notes (*i.e.*, IP-backed securities) to investors to raise cash to pay the original patent owner the agreed-upon purchase price. The notes are then backed by the expected future royalties to be earned from licensing the underlying patents (to the original patent owner

and/or third parties). At the end of the transaction, the original patent owner has essentially raised funds much more cheaply than a loan backed by its traditional assets. Thus, the IP-backed notes will generally be higher rated commercial paper reflecting the quality of the patents and not necessarily the overall creditworthiness of the original patent owner.¹⁴

Exemplary Players¹² alseT IP UCC Capital Royalty Pharma

Model

Patent Rating Software and Valuation Services

Description

These are entities that provide advanced patent search and analytics software tools and valuation methodologies that allow patent owners, attorneys, investors and other players in the IP marketplace to obtain various due diligence intelligence and data points about the strength and/or value of a single patent or patent portfolio. These software tools and platforms provide varied outputs related to patent "quality" such as validity probabilities, maintenance fee-related life expectancies, various infringement-related metrics, prior art analysis, "related patent" analysis, citation-related metrics, and ultimately "value," either in a relative or absolute sense. These entities earn revenue from pure software sales, as well as (hourly or flat-fee) consulting fees.

Exemplary Players¹²

1790 Analytics Next Steps Research
Consor The Patent Board
CRA Intl. Patent Café

Hagelin (CAV) Ocean Tomo PatentRatings

ICMG PATEV (Germany)
Intellectual Assets Perception Partners

IP Bewertungs AG SparkIP IP Checkups TAEUS

LECG Tech. Option Capital

NERA

Model

University Technology Transfer Intermediaries

Description

These are entities that function as IP Development Companies, IP Acquisition Funds, Licensing Agents and/or Patent Brokers, but focusing on the niche university technology transfer (*i.e.*, licensing) market. The choice to focus on the university market by such entities is not surprising given that in the 2005 fiscal year, U.S. universities and research institutes spent over \$42 billion in R&D, received over 3,278 U.S. patents and executed over 4000 licenses.¹⁵

Exemplary Players¹²

BTG Texelerate UTEK

¹⁴ See generally, Anne Urda, IP Securitization Getting a Second Look, IPLaw360 (May 2, 2006); William J. Kramer and Chirag B. Patel, Securitisation of Intellectual Property Assets in the US Market, Marshall, Gerstein & Borun (Jan. 2003) (available from http://www.marshallip.com/news-publications.html).

¹⁵ Association of University Technology Managers, U.S. Licensing Survey, FY 2005 Survey Summary (Dana Bostrom and Robert Tieckelmann eds.) (available from http://www.autm.net/pdfs/AUTM_LS_05_US.pdf).

C. Emerging Business Models

Having described the business models now existing in this new era of "IP for the masses," we now turn to the newest players. More specifically, these IP business models include:

Model

IP Transaction Exchanges & Trading Platforms/ IP Transaction Best Practices Development Communities

Description

In further attempts to make IP a more liquid asset class, plans have been announced to create traded exchanges (whether physical or online locations) similar to the NYSE and NASDAQ where yet-to-becreated IP-based financial instruments would be listed and traded much like stocks are today. Another variant involves an on-line trading platform where IP buyers and sellers can come together to execute transactions based on a set of agreed rules developed by a "best practices" steering committee composed of major corporate buyers and buyer-sellers.

Examples 16

Gathering 2.0
IP Exchange Intl (Ocean Tomo)

Patent Freedom

Patent Bid-Ask (Ocean Tomo)

Natl. IP Mgmt. Taskforce

Model

Defensive Patent Pools, Funds and Alliances

Description

This category includes several different types of defensive entities. One was born in reaction to the established PLEC and Institutional Patent Aggregator/IP Acquisition Fund business models described above. These entities seek to selectively acquire portfolios of patents for defensive reasons. They often focus on one technology area or in one industry segment, and are inspired by a "let's take these patents off the street before the asserters get them" attitude. Thus, this model results in multiple operating companies — who may have not previously cooperated, done business or even respected each other - joining financial and other resources to create an independent entity to acquire potentially "problematic" patents, and license them to anyone willing to share the financial cost of acquiring the patents and the management overhead of administering the pool. One variant of this basic model, referred to as "catch and release," involves a consortium of operating companies that buys patents which have been put on the market (e.g., via auctions, brokers or direct sale), licenses them to the members, and then sells the patents, preferably though not necessarily, at a profit. In another variant, referred to as a "library fund," a group of corporate investors pool capital to buy patents that may be "of interest" to certain large operating companies who are known to be aggressive in asserting patent claims against competitors. If one or more of the alliance members is threatened or sued by one of these companies, the affected member(s) can "check out" the patents to use in a counterattack. (This model obviously is not useful against asserters who have no infringement exposure.)

Examples¹⁶

Allied Security Trust Pelorus
Constellation Capital RPX
Open Innovation Network

•

¹⁶ The listing of examples for each emerging business model is not meant to be exhaustive.

Model

Technology/IP Spinout Financing

Description

This emerging business model is best described as being organized as a traditional venture capital (VC) or private equity firm, but specializing in spinning out promising (non-core) IP which has become "stranded" within larger technology companies, or creating joint ventures between large technology companies to commercialize the technology and monetize the associated IP. Thus, the revenue for this emerging business model is the same as a traditional VC or private equity firm – achieving a high ROI once a portfolio company is sold, goes through an IPO (or sometimes evolves into an IP licensing company).

Examples¹⁶

Altitude Capital Inflexion Point Analytic Capital IgniteIP

Blueprint Ventures New Venture Partners

Model

Patent-Based Public Stock Indexes

Description

This emerging business model is the evolution of the established Patent Rating Software and Services IP business model described above. That is, once the entities offering these software tools and platforms realized that nearly 80% of the value of a U.S. publicly-traded company now comes from intangible assets, and that they possessed tools to measure the "quality" of arguably the largest part of those intangible assets, then it became clear that another potential source of revenue would be the creation of formalized stock indexes based on their existing software tools and platforms. Put in different terms, the Patent Rating Software and Services industry theorized that investing in stocks with valuable patents may allow investors to commit a meaningful and sustainable portion of their assets to IP and allow them to outperform other investment strategies. Thus, they sought out different algorithms to create baskets of stocks using the "quality" of a publicly-traded company's patents as the primary selection factor. Revenue from such an emerging business model includes the sale of equity research and the licensing of such indexes to ETF, mutual fund and other investable financial instrument issuers.

Examples 16

Ocean Tomo Indexes Patent Board WSJ Scorecard

III. CONCLUSION

It is clear that the players, and their attitudes, that dominated the "feudal period" will no longer carry the day. The newly-established and emerging IP business models (and the players exercising such models) are not going away. That is, neither U.S. Supreme Court decisions such as *eBay* and *KSR*, nor any of the so-called "anti-patent troll" legislative proposals floating through Congress, will make such intermediary entities such as PLECs, IP outsourcing companies, licensing agents, brokers, merchant banks, exchange operators and the like go away. With as much as three-quarters of the value of publicly traded companies in America coming from intangible assets, and global IP licensing revenue now being measured in the hundreds of billions of dollars, there is simply too much economic justification for such entities to exist. In fact, new players implementing the IP business models described herein are continually surfacing. And, creative new IP business models will surely come into existence. Why? Quite simply, the business of IP (*i.e.*, the IP marketplace) itself is not immune to innovation!

This paper reflects the authors' current views and should not be necessarily attributed to their former, current or future employers or their respective clients.