

Business Method Patents: Navigating the Sea of Controversy

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Introduction

The proliferation of ecommerce applications has combined with recent legal developments to create a run on “business method” patents in the United States. Whether a firm is focused on web-based retail or conventional manufacturing, its business process innovations now may be eligible for patent protection. Arguably, business processes have been patentable for some time. With the imprimatur of the Federal Circuit decision in *State Street Bank v. Signature Financial Group*, however, the U.S. Patent and Trademark Office (PTO) has embraced the notion of patents for basic business methods. The business method exception is no longer a valid ground for rejection of patent applications within the PTO. In response, software developers¹, on-line merchandisers², financial services firms³, traditional hardware manufacturers⁴, and even agricultural companies⁵ have produced a flood of patent applications intended to protect the methods by which they conduct business. Many of the initial patent application filings are now emerging from the PTO as issued patents, impacting stock prices and creating controversy.

The new status of business method patents has coincided with the web-enabled explosion in ecommerce technology. Critics have expressed surprise and bewilderment at the issuance of some recent business method patents, worrying that the phenomenon may create legal disputes that slow further ecommerce innovation. They also cite concerns about the quality of the patent examination process, sufficiency of the standards for patentability, and philosophical opposition to the grant of business method patents. Litigation involving early business method patents, particularly among Internet retailers, has drawn the attention of those who believe the grant of business method patents are

1 See, e.g., U.S. Patent No. 6,070,150, entitled “Electronic Bill Presentment and Payment System,” and assigned to Microsoft.

2 See, e.g., U.S. Patent No. 6,058,417, entitled “Information presentation and management in an online trading environment,” and assigned to eBay.

3 See, e.g., U.S. Patent No. 6,061,663, entitled “Index Rebalancing,” and assigned to Nasdaq.

4 See, e.g., U.S. Patent No. 6,081,793, entitled “Method and System for Secure Computer Moderated Voting,” and assigned to IBM.

5 See, e.g., U.S. Patent No. 5,897,619, entitled “Farm Management System,” directed to management of crop insurance, and assigned to Agriperil Software. For evidence that the grant of business method-oriented patents in this area is not entirely new, however, see U.S. Patent No. 5,297,031, entitled “Method and Apparatus for Order Management by Market Brokers,” directed to management of orders for agricultural commodities, securities, and futures, and assigned to the Chicago Board of Trade.

simply bad for continued ecommerce growth. Others have focused on the perceived inadequacy of the “prior art” resources available to the PTO, and raised questions about the validity of many business method patents. Perhaps feeling the pressure of its critics, the PTO has taken steps to improve the quality of its examination corps and processes. The PTO has continued to grant business method patents, however, and the courts have continued to permit enforcement actions for them, suggesting that patent protection for business methods is here to stay. Moreover, some of the critics who now eschew business method patenting already have a head-start and appear intent to retain the patents they have collected to date.

A patent covering a business method can help a company carve out an attractive niche or, in some cases, bring competitors to their knees. At the same time, some investors and analysts seem to be fixated on the size of a company’s patent portfolio and react to news of patent allowance and issuance. As a result, procurement of business method patents has become a high priority for many companies. Even if you are behind in the business patenting game, strategic patenting of your business process innovations could help you catch up to your competitors. To play the game of business method patenting, you should be aware of the basic laws governing patentability in the United States. It is also helpful to understand the climate surrounding business method patents and the motivations of those who seek them. To create a value-added patent portfolio, you should know the real value and scope afforded by a patent, and determine whether pursuit of certain patents are worthwhile in view of your business objectives. Patents are not cheap, and it pays to develop a patent filing strategy. Finally, if patents make sense for your business, you need to avoid mistakes that can result in forfeiture of your patent filing rights, and understand the heightened risk of forfeiture for business methods.

U.S. Patent Basics

As in most endeavors, obtaining a basic understanding of the applicable rules and the environment in which they are applied is an essential first step. This sections focuses on the law and processes involved in obtaining a U.S. patent.

Law

Once analyzed, the patent laws are probably no more complex than other areas of the law, but they are highly specialized and not widely known. In essence, patent law begins with sections 101, 102, and 103 of Title 35, which set the basic requirements for patentability, and ends with section 271, which provides a cause of action for patent infringement. The PTO applies the *patentability* requirements of sections 101, 102, and 103 in examination of a patent application, determining whether to issue an allowance or a rejection. The courts apply the same requirements in assessing the *validity* of patents issued by the PTO in a suit for infringement under section 271.

The basis for the patent statute stems from Article I, Section 8, of the Constitution which provides Congress with the power to “promote the progress of the useful arts and

sciences.”⁶ The theory is that patents encourage innovation by providing inventors with limited exclusivity for a finite period of time. To receive a patent, however, the inventor must uphold his end of the bargain. In exchange for the right to exclude others from making, using, selling, offering for sale, and importing the patented invention, the inventor must provide the public with a description of the invention sufficient to enable manufacture and use by others (following expiration of the patent term).⁷ Moreover, the patent laws encourage prompt disclosure to expedite public knowledge of the state of the art.⁸

Section 101 specifies those inventions for which patent protection is available, and requires that such inventions possess *utility*. Per section 101, patentable inventions include any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof. Because an invention must satisfy other sections of the Patent Act, including sections 102, 103, and 112, some have referred to section 101 as defining not *patentable*, but *patent-eligible*, subject matter. As will be explained, until recently, business methods were not considered to be among the classes of subject matter eligible for patent protection.

The requirement of utility simply means that the invention must serve a useful purpose and actually work to some degree when constructed according to the patents. For most electrical-, mechanical-, and software-related inventions, the utility threshold is very low. Likewise, a business method will almost always satisfy the utility requirement if it is capable of practical application. One exception is a business method that serves an illegal or immoral purpose, e.g., a method for organizing arms distribution for systematic terrorism. This sort of invention would lack utility because it would not serve a *useful* purpose in the eyes of society.

Section 102 is multi-faceted and sets forth the basic requirements of novelty, and a number of conditions for forfeiture of patent rights. According to section 102, an invention is unpatentable if it has been known or used by others prior to conception of the invention by the patent applicant. An invention that has been known, used, or put on sale more than one year prior to the filing date also fails to meet the requirements of section 102. In each case, the invention lacks novelty because it was already in the public domain. Section 102 also precludes the grant of the patent in the event the applicant derived the invention from another person, or another person conceived the invention earlier and did not abandon, suppress, or conceal it, i.e., the other person eventually published or marketed the invention.

Some of the conditions set forth in section 102 for forfeiture of patent rights are referred to as bars to patentability. Notably, an applicant’s own conduct can create a patentability bar. In particular, the public disclosure or use of the invention more than one year prior the filing of a patent application can result in loss of patent rights. An example is the

6 U.S. Const., Art. I, § 8.

7 See 35 U.S.C. § 112, ¶ 1.

8 See 35 U.S.C. § 102; Preserving Your Rights (Avoiding Forfeiture), *infra*.

presentation of a paper at a conference by either the applicant or a third party. In either case, the invention is no longer novel for purposes of the patent laws.

Sale or offer for sale of the invention more than one year prior to filing of patent application also can derail an applicant's patent rights.⁹ A sale or offer for sale could arise, for example, in the context of the offering of a product at a specified price to a customer, or simply marketing of a product at a trade show. As a matter of policy, the one-year "grace period" that follows a disclosure or sale strikes a balance between the public interest in early disclosure of inventions and the inventor's need to assess the commercial and technical viability of the invention. In most countries outside of the United States, there is no such grace period.

Section 103 of the Patent Act places the standard for patentability above the level of trivia, requiring that the invention be nonobvious. According to case law, the nonobviousness determination involves analysis of the scope and content of the prior art, the differences between the invention and the prior art, and the level of skill of those persons working in that art. With this foundation, the patent examiner (or the court considering validity) determines whether the invention as a whole would have been obvious to those of ordinary skill in the art at the time the invention was made.

In this manner, section 103 adds to the novelty requirement of section 102 a degree of separation between trivial, incremental improvements and those refinements that would not readily occur to those skilled in the art. Still, the nonobviousness standard does not necessarily require Newtonian brilliance, having long ago replaced the "flash of genius" doctrine as the ultimate standard for patentability in the United States. Outside of the United States, the requirement of "inventive step" is analogous to nonobviousness.

Process

The first step in the process of obtaining a patent is the preparation and filing of a patent application. The patent application provides a detailed description of the invention and a set of claims that define the metes and bounds of the coverage sought by the applicant. The detailed description, in the context of business method or software-related inventions, often will include one or more block diagrams of a system or system architecture for implementation of the method, and several flow diagram illustrating operation of the method. A written description accompanies the drawings and should provide sufficient depth and detail to enable others to use the method (once the patent term has expired). In some cases, the detailed description may refer to specific hardware and software envisioned for implementation of the inventive method. The detailed description must provide support for the features set forth in the claims.

In drafting the claims, the applicant seeks to define the invention as broadly as possible, but must differentiate the invention from the prior art. For this reason, consideration of prior art is a key step in preparing the application. Often, the inventor is aware of the

most pertinent prior art, ordinarily in the form of prior patents, publications, or product brochures. In many cases, however, a prior art search is advisable. The prior art search can be effective in uncovering material art of which the inventor was not aware.

It is essential that the patent attorney have the most pertinent prior art available so that the detailed description and claims can be drafted in a manner consistent with the requirements of novelty and nonobviousness, both of which are determined based on the prior art as discussed above. Importantly, if the applicant or anyone else involved in seeking the patent is aware of material prior art, it must be submitted to the PTO for consideration. Although there is no obligation to conduct a search, it is in the interest of the applicant to have the claimed invention examined against the best prior art. The resulting patent typically will be more resistant to a validity challenge if tested against the most relevant prior art.

Upon filing, the patent application ordinarily languishes in the PTO for several months. It is not uncommon for patent applications to lie dormant for a year or more prior to PTO examination. Issuance of a patent often can take two to three years. Examination delay is a function of the PTO backlog, and can be a significant problem for inventions with short commercial lifespans. If the invention is commercially relevant for only three years, for example, a patent that takes three years to issue is of little value. In the business method area, the PTO is adding examiners in an effort to reduce the backlog. To date, however, applicants have observed little improvement in the timeliness of examination. For this reason, applicants should strongly consider product lifespan when making patent filing decisions.

The claims define the scope of the invention for both patentability as determined by the PTO, and patent validity as determined by a court in an enforcement, i.e., patent infringement, action. The scope of the claims also serves as the measure of infringement. To be an infringer, a competitor must practice each and every feature, or a substantial equivalent, set forth in the claims. The applicant is permitted to submit a variety of different claims. Notably, the claims may span different statutory classes of patent-eligible inventions. For a method of routing field service technicians to service calls, for example, the applicant would be permitted to claim the method per se, a system that implements the method, and perhaps a computer-readable data storage medium storing program code executed by a computer to perform the method.

When selecting the type of claims to submit, the applicant should consider the manner in which the competitors are most likely to infringe. In some instances, action against the company practicing the method, e.g., a financial services provider, may be most desirable. In that case, the financial service provider may be a direct competitor. In other instances, the primary target for enforcement may be a company that distributes software for implementation of the method by its customers. Enforcement against parties who contribute to or induce infringement can be obtained. However, a claim that directly applies to a key player, like a software distributor, is usually most desirable. Aside from enforcement actions, claim variety can be useful in licensing to define the breadth of a royalty base and leverage additional royalties from licensees.

Once the examiner picks up the application for examination, he or she refers to the claims to ascertain the scope of coverage sought by the applicant, and initiates a prior art search. The examiner is armed with a classification index and a substantial body of prior patents and publications. The typical examiner assigned to business method patenting may have an electrical engineering or computer science background, and often little industry experience. An examiner may develop significant expertise in a technology area over a period of years of PTO employment, but typically enters directly from college with minimal applied knowledge. The PTO tends to experience a great deal of turnover, and must staff inexperienced examiners on a large number of applications. Although junior examiners are subject to internal review, the sheer number of applications pushed through the PTO can limit the depth of oversight and training. Moreover, junior examiners must learn both the patent laws and the pertinent technology simultaneously, creating a significant learning curve.

In view of the burdensome workload, the primary measuring stick for examiner performance tends to be the number of applications processed by the examiner per unit time. Indeed, each examiner carries a bi-weekly quota that must be met for satisfactory performance, and exceeded to qualify for performance bonuses. As a result, timing and speed can be significant motivating factors in the examiner's handling of an application. Productivity factors, in combination with a non-exhaustive prior art collection and lack of technical understanding, can unfortunately result in the issuance of a few "suspect" patents, i.e., patents of questionable validity. This is particularly the case in the business method field, which creates a convergence of all three factors: heavy examination workloads, limited prior art, and new, emerging technologies. A fourth factor is simply the relative newness of business methods as patent-eligible subject matter.¹⁰

History

The history that has led to the patenting of business methods is long but deliberate, reflecting adaptation of the law, the courts, and the PTO to new technology and business realities. The PTO suggests that business method patents have been around for years, and that the business method exception was simply another test for statutory subject matter that could be satisfied under certain circumstances.¹¹ The *State Street* decision was a bit of a surprise to some, nevertheless, and certainly a sign of the Internet times in which we live. The battle was waged and won for patentability of software throughout the 70's and 80's, and culminated with the *In re Alappat*¹² decision of the Federal Circuit in 1994

¹⁰ The Courts and PTO suggest, however, that business methods have always been patentable, and that *State Street* really is just a clarification of the law. See Controversy and PTO Response *infra*.

¹¹ See A USPTO White Paper, Automated Financial Management Data Processing Methods (Business Methods), United States Patent and Trademark Office, July 19, 2000, page 3, note 6 (suggesting that "State Street merely modified the test used to determine "statutory subject matter").

¹² *In re Alappat*, 33 F.3d 1526 (Fed. Cir. 1994).

(followed by important refinements offered by *In re Beauregard*¹³ in 1995). With *State Street* in 1998, it was time to address the patentability of the basic business processes enabled by some of the software platforms previously found to be patentable.

Until the early 1990's, the patentability of software-related inventions was uncertain. The courts had considered the question on many occasions prior to the 1990's, but had significantly limited the ability of applicants to obtain patents for software-related inventions. In light of the questionable patentability of software-related inventions, many pioneers in the software field elected to forego patent filing. For many, favorable changes in the patent laws could have made a substantial difference if only they had come earlier.¹⁴

In denying patent protection for software-related inventions, the courts and the PTO relied on a number of theories with common threads, and applied them to suit the circumstances. Among the bases for denial of patent protection were the so-called mental steps, mathematical algorithm, printed matter, and business method exceptions. For each, the analysis applied by the court and the PTO focused on the scope of section 101 in terms of subject matter eligible for patent protection. In some cases, however, it seemed that the section 101 inquiry was a means to avoid a determination of novelty and nonobviousness under sections 102 and 103.

According to the mental steps doctrine, processes that were susceptible to practice as mental steps performed by a person could not be eligible for patent protection. The courts theorized that such a patent could be so broad as to stop others from using their brains. The courts concluded that restrictions on mental processes would not serve to promote the progress of science, and therefore must be outside of the scope of section 101. On this basis, the courts emphasized the need for application of the process to manipulate something physical, taking it out of the realm of purely mental energy. The courts opened the door to patentability only upon application of such a process to transform objects in the real world. In this case, the process required more than mere mental processes.

The mathematical algorithm exception distinguished processes having physical effects from those involving abstract number crunching, sharing common ground with the mental steps doctrine. The courts reasoned that mathematical algorithms are among the basic tools available to engineers and scientists, akin to laws of nature, and that the grant

¹³ *In re Beauregard*, 53 F.3d 1583 (Fed. Cir. 1995).

¹⁴ See "Why didn't we patent the spreadsheet? Were we stupid?," by Dan Bricklin, www.bricklin.com/patenting.htm (explaining why he did not pursue patent protection for Visicalc, the forerunner in spreadsheet software). A latter day example is Wired's election not to file a patent for the click-through advertising scheme that it pioneered on its online presence, hotwired.com. According to media accounts, Wired's failure to pursue patent protection was not based on an interest in freedom of the Internet, but rather questions concerning the patentability of ecommerce methodologies in light of the business method exception.

of patents capable of “preempting” the use of such algorithms was not intended under section 101. For many years, the courts emphasized the importance of physical effect in determining whether claims involving mathematical algorithms. Because many of the mathematical algorithm cases concerned computer-related inventions, the unfortunate implication was that a computer program and a mathematical algorithm are one and the same.

The courts, and more typically the PTO, trotted out the printed matter exception when they believed the claimed invention amounted to software or a computer program per se. In this case, the rationale for exclusion was that a computer program, particularly in the form of a code listing, was analogous to a newspaper or other printed matter. Although the content of the printed matter may be novel and nonobvious, it still was considered just content that does not alter the physical nature of an otherwise statutory process, machine, article of manufacture, or composition of matter for purposes of section 101. The same rationale was applied in denial of patent protection for musical recordings, literary works, and the like, where the content is non-functional and does nothing to physically alter the media on which it is encoded.

The business method exception was seemingly created for inventions that could not be excluded under the other exceptions. In reality, however, the business method exception emerged very early on in the consideration of statutory subject matter. The original business method case concerned a method for maintaining a bookkeeping system.¹⁵ The rationale underlying the business method exception was that patent protection, as in the case of mathematical algorithms, should not extend to abstract ideas.¹⁶ Indeed, with its emphasis on prohibition of patents for abstract ideas, the business method exception seemed somewhat redundant over the requirements of the mathematical algorithm analysis.

With an abundance of reasons to prohibit patent protection, the courts’ decisions generally discouraged those seeking patents for computer-related inventions throughout the 1970’s and much of the 1980’s.¹⁷ The Supreme Court began to refine the requirements for patentability in the 1980’s, however, holding in one case that a method was eligible for patent protection because the pertinent control algorithm was applied to the physical process of curing rubber.¹⁸ Hence, the claimed process amounted to more than an algorithm per se, and instead produced a physical result.

A bit earlier, in the context of claims directed to living matter, the Court restated the general prohibition against patenting of laws of nature, physical phenomena, or abstract ideas.¹⁹ In emphasizing the prohibition against the patenting of naturally occurring subject matter, however, the Court proclaimed that the patent laws were intended to

15 See *Hotel Security Checking Co. v. Lorraine Co.*, 160 F. 467 (2d Cir. 1908).

16 *Id.*; *Ex parte Murray*, 9 U.S.P.Q.2d 1819 (Bd. Pat. App. & Int. 1988).

17 *Parker v. Flook*, 437 U.S. 584 (1978); *Gottschalk v. Benson*, 409 U.S. 63 (1972).

18 *Diamond v. Diehr*, 450 U.S. 175 (1981).

19 *Diamond v. Chakrabarty*, 447 U.S. 303, 309 (1980).

provide protection for “anything under the sun that is made by man.” This sweeping and oft-cited statement provided momentum to the cause for more liberal patenting of computer-related inventions in that they are certainly man-made.

Subsequent cases continued to emphasize the importance of physical effect in determining whether claims to software-related inventions were patentable. The so-called Freeman-Walter-Abele test²⁰ served for several years as the standard for eligibility of software-related claims, requiring application of the algorithm to physical elements or process steps. At that time, the patentability debate tended toward issues such as whether field of use limitations or post-solution activity, like displaying results, were sufficient to make a claim statutory, and whether a claim ought to be considered as a whole or by excising the algorithm from the claims. The Freeman-Walter-Abele test persisted long enough that practitioners became rather adept at characterizing inventions in the claims to satisfy its requirements.

In 1994, the U.S. Court of Appeals for the Federal Circuit cemented the patentability of computer-related inventions under U.S. patent laws. In the *Alappat* case, the Court ruled that the PTO had improperly rejected claims directed to a method for reducing “jaggies” on the screen of an oscilloscope.²¹ The claimed invention relied primarily on a mathematical algorithm. Nevertheless, the Court recognized that the invention was implemented as a computer, and therefore did not amount to an abstract mathematical algorithm. In particular, the Court concluded that the *Alappat* invention was “not a disembodied mathematical concept which may be characterized as an ‘abstract idea,’ but rather a specific machine to produce a useful, concrete, and tangible result.”²² Following this decision, the *Freeman-Walter-Abele* requirement of physical structure or result still stood as one measure of statutory subject matter, but not the only one.

20 See *In re Freeman*, 573 F.2d 1237, 197 USPQ 464 (CCPA 1978), as modified by *In re Walter*, 618 F.2d 758, 205 USPQ 397 (CCPA 1980), and *In re Abele*, 648 F.2d 902, 214 USPQ 682 (CCPA 1982). The Court of Appeals for the Federal Circuit summarized the test as follows:

It is first determined whether a mathematical algorithm is recited directly or indirectly in the claim. If so, it is next determined whether the claimed invention as a whole is no more than the algorithm itself; that is, whether the claim is directed to a mathematical algorithm that is not applied to or limited by physical elements or process steps. Such claims are nonstatutory. However, when the mathematical algorithm is applied in one or more steps of an otherwise statutory process claim, or one or more elements of an otherwise statutory apparatus claim, the requirements of section 101 are met.

Arrhythmia Research Technology, Inc. v. Corazonix Corp., 958 F.2d 1053 (Fed. Cir. 1992).

²¹ *In re Alappat*, 33 F.3d 1526 (Fed. Cir. 1994).

²² *Id.*

The Court would later place significant limits on the printed matter exception. Following *In re Beauregard*, in particular, claims directed to computer-readable media would be patentable, provided the media carried functional content.²³ This content was found distinguishable over printed matter. At the same time, the parallels existing with the mathematical algorithm exception would have practical effects on the application of the mental steps doctrine. Specifically, the unifying concept of “useful, concrete, and tangible result” stated in *Alappat* seemed to be a standard for all seasons. Still, there was no opportunity for the courts to clearly denounce the business method exception, even though the PTO had generally shelved it as a matter of internal examination policy.²⁴

Finally, the Federal Circuit had its opportunity in *State Street Bank v. Signature Financial Group*.²⁵ In *State Street*, the Federal Circuit followed the PTO’s lead and eliminated the business method exception, virtually denying it ever existed. The *State Street* case concerned a patent obtained by Signature Financial Group for a data processing system configured for management of a “hub-and-spoke” mutual fund system. The district court ruled in favor of *State Street*, holding that the claimed system amounted to a “method of doing business” and therefore was not patentable.

The Federal Circuit reversed, and put the “ill-conceived” business method exception out of its misery. The Federal Circuit first noted that the system claimed by Signature fell within the statutory classes of patent-eligible subject matter (“any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof”) set forth in section 101. The court also pointed out that the Signature system is more than a mere algorithm because it produces a “useful, concrete, and tangible result” in the form of a mutual fund share price derived through an algorithm. Taking the business method exception head-on, the court held that it had died long ago to the extent it ever existed. Notably, the court pointed out that whenever the business method exception had been raised in the past, the statutory subject matter issue had been resolved generally on the basis of mathematical algorithm analysis.

Following *State Street*, the Federal Circuit reaffirmed that the proper analysis revolves around the “useful, concrete, and tangible result” standard originally advanced in *Alappat*. In *AT&T Corp. v. Excel Communications, Inc.*, the Federal Circuit upheld the patent eligibility of a process for enhancing the records of long-distance telephone calls by adding a data field into the standard message record.²⁶ The Federal Circuit acknowledged the “sea-changes in both law and technology,” and reiterated its focus on

²³ *In re Beauregard*, 53 F.3d 1583 (Fed. Cir. 1995). The result was PTO acknowledgement that a computer-readable medium qualifies as a statutory article of manufacture to the extent program code stored on the medium and executable by a processor functionally defines the medium. See Examination Guidelines for Computer-Related Inventions, 61 Fed. Reg. 7478, 7479 (1996).

²⁴ See Examination Guidelines for Computer-Related Inventions, 61 Fed. Reg. 7478, 7479 (1996).

²⁵ 149 F.3d 1368 (Fed. Cir. 1998).

²⁶ 172 F.3d 1352 (Fed. Cir. 1999).

whether the subject invention exhibits real world utility, notwithstanding reliance on a mathematical algorithm.

A Run on Business Method Patents

In the aftermath of the State Street decision, the PTO has observed a frenzy of patent activity in the business method area, as well as a great deal of media and investor attention. The players in the game of business method patenting include ecommerce startups and established manufacturers, Internet pioneers and clicks-and-mortar converts, and basic technology originators and applications developers.

Examples of business method patents issued to date include auction paradigms²⁷, electronic payment processes, customer referral systems, incentive and reward models²⁸, user interface arrangements, and web advertising. With each patent issuance in the age of business method patents, there often is a press release. Indeed, many companies are now issuing press releases upon the mere filing of a patent application or the issuance of a notice of allowance. In some cases, there is a blip in the patentee's or applicant's stock price, even in the absence of any knowledge of the true scope of the patent rights.

From the standpoint of competitive advantage, the *State Street* decision and recent litigation have focused the attention of CEO's on business method patenting. Indeed, an increasing number of companies are building entire business around the accumulation and licensing of patents. A familiar example of this type of venture is Walker Digital, the corporate entity to which the well known reverse auction patent associated with Priceline.com is assigned. Walker essentially develops and patents business processes for licensing to third parties or companies created by Walker. Other companies, like IBM, are adding business method patents to the software and hardware patents in their already successful licensing portfolios.

There are a number of recent examples of licensing efforts built around business method and Internet-related patents. Licensing programs based on more traditional technologies, such as networking and computing systems, has netted IBM over \$1 billion annually in recent years and leveraged access to the technology of other companies via cross-licenses. On the flip side, according to media accounts, Dell has relied on patents for its online customer ordering processes to secure favorable component pricing from IBM. Texas Instruments has exploited its portfolio of semiconductor and circuits patents to similar success. At the same time, a number of web sites devoted to intellectual property transfer, e.g., by auction, have cropped up in the last year, encouraging companies to look at their intellectual property as a saleable asset and ascertain its market value by use of their web sites.

27 See U.S. Patent No. 5,794,207, entitled "Method and apparatus for a cryptographically assisted commercial network system designed to facilitate buyer-driven conditional purchase offers," and assigned to Walker Asset Management.

28 See U.S. Patent No. 6,009,412, entitled "Fully integrated on-line interactive frequency and award redemption program," and assigned to Netcentives.

As recent examples of efforts to license Internet-related and business method patents, Geoworks stands ready to license a patent filed six years ago that is said to cover any device running the new Wireless Application Protocol (WAP), including cell phones with WAP-compliant Internet access.²⁹ Another company, Home Gambling Network, offers licenses under its remote wagering system, and recently received a successful result in litigation against a competitor. As a further example, Sightsound.com is asking that anyone selling musical content by download over the Internet pay a one percent royalty.³⁰ In June, British Telecom announced its plans to grant royalty-bearing licenses based on a patent that was originally filed in 1980 and issued in 1989. Apparently, British Telecom dusted the patent off recently, and determined that it covers perhaps the most ubiquitous of Internet features, the hyperlink.

While some companies hoard patents and package them as products for license, others lament the effects of business method patents on competition, and wonder if the grant of patent rights in the web and ecommerce arena is appropriate as a matter of policy. They cannot afford to be left behind, however, and must stock their portfolios with business method patents of their own. In this sense, many web industrialists are now beginning to realize what has been well known in other industries for decades: patents have both offensive and defensive value.

While a patent can carve out a zone of exclusivity to afford its owner competitive advantage, it also can be useful in a defensive mode to ward off a charge of infringement by a competitor or gain access to technology, i.e., by way of a cross-license or infringement counterclaim. More sophisticated firms may even have the foresight to develop picket fence strategies designed to leverage cross-licensing opportunities.³¹ Of course, the defensive value of a patent is diminished when an infringement charge is made by a party who is not a competitor, and has no need for a cross-license. Nevertheless, even patent-phobic industry players have found that they cannot turn away from business method patents.

29 Geoworks is offering a \$20,000 flat fee license under its patent to any company that wants to use WAP in an application, with the exception of developers with revenues of less than \$1 million, who will be encouraged to develop application with a royalty-free license.

30 To enforce its patent rights, Sightsound has sued CDNow, the online music business acquired by Time Warner and Sony.

31 A picket fence strategy involves the filing of numerous patent applications in view of a competitor's issued patents in an effort to patent improvements over the competitor's technology and "fence" in his future mobility. The strategy can be useful in obtaining access to the competitor's basic patents through a cross-licensing arrangement. In particular, a picket fence can be helpful to companies operating in "catch-up" mode relative to other players. Many Japanese companies used this strategy in the 1980's to chase down U.S. and European technology leaders to leverage cross-licensing arrangements.

As another motivation, industry leaders have become accustomed to the impact of patents on investor perception. A company can look forward to a checklist of intellectual property issues, with emphasis on patents, when moving toward an IPO or succumbing to due diligence scrutiny as part of a merger. In many cases, however, investors do not focus on whether a company has filed patent applications to protect its business processes, but rather how many patents the company has in its portfolio. In this manner, emphasis can be on quantity over quality. Issuance of press releases about patent allowance are routine. Although a patent has a somewhat definite scope, as determined by the claims, investors often forego that level of detail in making their investing decisions. Most institutional investors understand that the value of a patent requires extensive analysis of its scope and validity, and may only be borne out in the litigation or licensing context. At Internet speed, however, those details often must be deferred for another day. These days, the real faux pas is to show up with no patents at all.

In summary, legal changes, opportunities to secure competitive advantage, and investor scrutiny have combined to produce a mass filing of applications for business methods and Internet-related technology. The U.S. Patent and Trademark Office plans to hire over one-thousand new patent examiners over the next two years to augment its present staff of roughly three-thousand. The new examiners will be recruited, to some degree, to handle the flood of business method and ecommerce platform applications. The filing of business method patent applications should continue at its present pace for some time, particularly as earlier applications issue as patents, driving competitors to file their own applications in pursuit of bargaining chips or picket fence strategies. Failure to do so could raise the ire of shareholders. Shareholder reaction may be visceral (if so-and-so is getting a patent, why aren't we?) or based on legitimate concern (if all we have is a business process, how do we preserve our equity in it?).

Controversy

If recent controversy is any sign, the aftermath of the gold rush for business method patents could be bumpy. A great deal of media attention of late has been focused on litigation involving some of the forerunners of the business method patent movement, as well as patents purported to cover the basic Internet technology that enables many of the web business processes to which we are accustomed. Notably, some of the more problematic patents were filed in the 1980's.

Among the recent cases is the suit filed by Allan Konrad against roughly forty companies concerning a patent related to remote database access, e.g., over the web. Going after giants like GM, Northwest Airlines, and Dell, Mr. Konrad has asserted that his patent hits at ground zero of ecommerce—the corporate web site. As mentioned above, companies like British Telecom and Geoworks have dusted off seemingly dormant patents and pointed them at fundamental web methodologies such as hyperlinking and the emerging Web Application Protocol (WAP), albeit in a licensing mode.

Meanwhile, mainstream ecommerce players like Priceline.com and Amazon.com have received key web process patents and asserted them in short order. In late 1999, both

Priceline.com and Amazon.com filed patent infringement suits against competitors in the online travel and retailing industries, respectively. Unlike Konrad, Priceline.com and Amazon.com were actually doing business on the web and even generating a little revenue. Consequently, neither of the suits by Priceline.com and Amazon.com was a royalty shake-down, but rather an effort to stop an arch-rival in the online arena.

In the case of Priceline.com, a foray by Microsoft's Expedia.com into the reverse auction arena threatened its business. For Amazon.com, the use of a one-click shopping method by Barnes & Noble's web presence raised similar concerns. With significant foresight, however, each company was locked and loaded with a business method patent. The suit between Amazon.com and Barnes & Noble has resulted in an interim design-around by Barnes & Noble. The suit filed by Priceline.com against Microsoft also remains pending.

Other examples of recent litigation include a number of suits related to web advertising. Following the filing of a suit to enforce its own patents, Doubleclick.com found itself on the receiving end of an infringement claim by 24/7 Media based on a patent entitled "On-Line Interactive System and Method for Providing Content and Advertising Information to a Targeted Set of Viewers." Seen as a leader in the online advertising market, Doubleclick.com is an example of a company with the foresight to assemble its own war chest of patents. Whether that will be effective in the 24/7 suit remains to be seen. Juno filed another suit relating to web advertising against Qualcomm and NetZero. The suit alleges infringement of a patent for a email-related technology that enables advertisements and other content to be displayed when a user is offline. Another suit, filed by CoolSavings.com against Emaildirect with respect to a patent for electronic coupons and rebates, recently settled.

While Jay Walker (Priceline.com), Jeff Bezos (Amazon.com) and others avail themselves of the competitive advantages that have long been afforded to companies in other industries, sideline observers have expressed concern that business method patents are having an anti-competitive effect on the Internet. Richard Stallman and others attempted to organize a boycott of Amazon.com to express their displeasure with its patent enforcement activities. Never mind that the same "anticompetitive" effect applies (and has long applied) to every other industry. The notion justifying the limited patent monopoly is that a system of incentives is effective in promoting innovation. The protest sentiment is that the Internet realm is somehow different, and that such incentives are unnecessary.

Technology publisher Tim O'Reilly implored Bezos to reconsider his position on enforcement of business method patents, expressing concern for the continued development of the Internet. Like O'Reilly, many argue that the specter of patents simply will hamper the laissez faire development of the Internet that has been so successful to date. The undertone is again the view that Internet technology is somehow

different from other technology areas, and therefore inappropriate for application of patent protection.³²

Many of the arguments raised during the earlier debate over software patentability have reemerged. Among them is the notion that the incentive provided by patents simply is not needed to promote Internet development. Another argument is that the pace of Internet development, where technology platforms come and go in the course of a couple of years, is inconsistent with the twenty-year term of a patent.³³ Also, some argue that because the Internet is so new, early players unfairly received monopolies over key components.³⁴

The most persuasive arguments are probably those that center on the effectiveness of the PTO in issuing valid patents for inventions that truly merit patent protection. The concern is that because Internet technology is so new, and even newer to the PTO as a result of the historical prohibition of business method patents, the prior art resources available to the PTO are woefully inadequate. This concern has been borne out in a number of cases involving software patents, and is not surprisingly a legitimate problem for patents involving Internet and ecommerce technology. The patent validity issue has given rise to patent search services designed to seek out invalidating prior art to “kill” patents. One of the more well known searchers is Greg Aharonian who, in addition to operating a search firm, has been the most vocal critic of the quality of PTO examination in the software and Internet areas.

In an open letter to the Internet community, Bezos eventually succumbed to pressure from critics like O'Reilly. He reiterated concerns about the quality of PTO examination, emphasizing the need for better prior art resources and training of PTO examiners. Bezos offered suggestions for improvement, including a public effort to expand the availability of prior art to the PTO, and institution of a public comment period prior to patent issuance, and limited terms for business method patents. Although Bezos' concerns and suggestions were not necessarily new, they garnered a great deal of attention. Of course, before his change of heart, Bezos had already reaped the benefits of the patent system in Amazon's suits against Barnes and Noble.

PTO Response

32 *See, e.g.*, Lawrence Lessig, “Online Patents: Leave the m Pending,” WALL ST. JOURNAL, Mar. 23, 2000, at A22 (urging Congress to “declare a moratorium on the offensive use of software and business-method patents”).

33 If a technology is only relevant for three to five years, then arguably the patent only has an effect on competition for that period of time. Thus, the concept of technological lifespan seems to fall flat as an argument for reduced patent terms. Rather, those espousing this position seem to be concerned about those basic business concepts that outlast particular technology platforms and remain relevant for many years.

34 But this seems to be the case with every new industry: spoils to the pioneers followed by sour grapes by the latecomers and those asleep at the wheel.

Q. Todd Dickinson, for one, responded to Mr. Bezos and others with an announcement of a new internal PTO program for business method patents. Designed to improve examination quality, the program calls for better searching by PTO examiners and a “second pair of eyes” focused on each ecommerce patent application prior to allowance. Secondary review is not new within the PTO, however, and theoretically takes place in every application handled by a junior examiner.³⁵ In parallel with the new program, the PTO plans to conduct a public hearing with industry leaders and other interested parties in the near future concerning business method patenting issues.

Until very recently, details concerning implementation of the new examination program remained vague. The PTO issued a White Paper on July 19, 2000, however, entitled “A USPTO White Paper: Automated Financial or Management Data Processing Methods (Business Methods).” In the White Paper, the PTO described steps to improve the business method patenting process, advanced its views of the history behind business method patenting, and disclosed a number of interesting facts and statistics. In particular, the PTO suggested that business method patents have been around for almost two-hundred years, citing a financial patent granted on March 19, 1799 to Jacob Perkins for an invention concerning “Detecting Counterfeit Notes.”

The PTO White Paper went on to track a number of additional patents purported to cover business methods that were granted by the PTO throughout the years. According to the PTO, the first fifty years of PTO operation saw forty-one “financial” patents ranging from “bank notes (2 patents), bills of credit (1), bills of exchange (1), check blanks (4); detecting and preventing counterfeiting (10), coin counting (1), interest calculation tables (5), and lotteries (17).”³⁶ The PTO White Paper also identifies a few hundred patents in Class 705 that it perceives as covering business methods issued between 1977 and 1999.³⁷ The statistics are interesting in themselves, but the PTO’s motivation for citing them is curious. It seems that the PTO believes that issuance of business method patents is not a radical departure from its previous practices, but rather business as usual. Nonetheless, the smattering of business method patents issued in the 1800’s along with the few hundred issued more recently did nothing to prepare us for the onslaught of the late 1990’s and early 2000’s.

The size of the business method tsunami is either supported or disputed by the PTO White Paper, depending on how you look at it. The PTO White Paper states that Class 705 has seen “strong filing growth” between 1998 and 1999, based on 2658 applications

35 A “primary” examiner generally is required to co-sign any Office Action prepared by a junior examiner. It ordinarily takes 5-7 years to achieve the rank of primary examiner.

36 See PTO White Paper, at page 2.

37 The patents have been assigned to Class 705 (automated business data processing technologies) in the PTO Search Classification Index, a guide for examiner searching that divides prior patents and other art into technology areas. From the PTO White Paper, the leaders in numbers of patents obtained in Class 705 over the period from 1995 to 1999 are as follows: Pitney-Bowes (77), Fujitsu (64), IBM (58), NCR (30), Hitachi (27), Citibank (22), EDS (21), and Microsoft (20).

filed during that period of time. This number sounds impressive, and probably is, but the PTO is quick to point out that the number is less than 1% of the total PTO annual filings. Still, for a relatively new technology to account for almost 1% of the PTO's workload is notable. The PTO White Paper also makes an interesting point that it is still the enabling technologies, or ecommerce "backbone," that sees many more filings. According to the PTO, digital and multiplex technologies saw 7131 applications in 1999, while other classes relating to web browsers, wireless communications, and database applications saw over 13,000 applications in 1999.³⁸

In describing the state of its business method examination corps, the PTO White Paper indicated that thirty-eight examiners now work in Class 705, and that "4 have an MBA or other business degrees, 4 have a JD degree, 4 have PhD degrees, and 7 have Masters Degrees."³⁹ According to the PTO White Paper, the patent applications in class 705 have begun a transition to inventions having more of a business focus. In response, the PTO is seeking increased numbers of examiners with three years of business industry work experience. Presently, fourteen of the Class 705 examiners have business experience ranging from banking and securities to real estate and insurance.

The PTO White Paper acknowledges that examination in Class 705 is "filled with challenges."⁴⁰ In an effort to meet the challenges, the PTO's Science & Technical Information Center - Electronic Information Center (STIC - EIC) supports the Class 705 examiners in locating additional electronic business literature sources and retrieving hard copy references, and is expanding its own conventional library. In addition, the STIC is attempting to collate its examining resources into a web-based search tool for convenience and effectiveness of the Class 705 examiners.

Under the section entitled "Improving Quality," the PTO White Paper acknowledges that high quality examination must be ensured. The mission of the PTO is to "help our customers get patents."⁴¹ To help better weed out unpatentable inventions, however, the PTO White Paper refers to a Hybrid Examiner-Trainer program involving primary (senior) examiners who will spend 50% of their time training Class 705 examiners in legal, procedural, and technological aspects of patent examination.

Procedural training involves two weeks of intensive training in patent examining procedure, which is nothing new for examiners at large, and is often called "Patent Academy." The Patent Academy continues later for the examiner, in two-week installments, as the examiner gains more experience. For Class 705 examiners (within 2760), however, there is a special training manual developed by primary examiners in the

38 The PTO White Paper states: "it must be noted that most patent applications being examined in Class 705 still strongly reflect the implementing or enabling engineering . . . used to carry out the practical applications being claimed." See PTO White Paper, at page 9.

39 PTO White Paper, at page 9.

40 PTO White Paper, at page 11.

41 PTO White Paper, at page 12.

group. The content of the manual is generally characterized as focusing on disclosure and claim analysis, searching, and preparation of office actions, but notably not anything that obviously pertains to business method technology.

The PTO White Paper further contemplates search strategy training that concerns analysis of the scope of the claims and use of standardized search strategies for aspects of business technology. Here, the PTO may be breaking ground toward an improved examination process. The PTO White Paper states: “[w]hile each application is unique and requires individual attention, these strategies assist a patent examiner, new or experienced, in searching the appropriate areas and finding references relevant to the application at hand.”⁴² With the search strategies, the PTO now will provide a search strategy advisory panel “comprised of managers and experienced examiners” to help Class 705 examiners in developing for particular applications. These steps may be very helpful in improving the uniformity of searching and examination among PTO examiners.

In addition to improved search targeting, the PTO White Paper suggests that commercial databases and non-patent literature are now more readily available to examiners, either directly or via the STIC - EIC. Also, search training will now include examples of searches initiated using such resources as “real world” situations. The EIC Staff, which includes 12 searchers, now will provide “new and interesting” business information to Class 705 examiners in a daily e-mail. The Class 705 examiners will rely on a set of “core” databases of non-patent literature for all searching, as well as a number of subject-specific databases for particular types of inventions.⁴³

In terms of technical training, both new and experienced Class 705 examiners will receive technical training in “electronic business practice,” and particularly, computer networking, computer architecture, electronic payments, electronic catalogs, and computer security.⁴⁴ Direct technical training of examiners seems to be a new concept. In addition, the PTO White Paper contemplates a budget for industry field trips, conferences, and seminars to keep examiners up-to-date in their technical and business awareness. Indeed, the PTO White Paper mentions plans to take a field trip to Wall Street. Field trips by examiners, although little known, have been going on for years.

42 PTO White Paper, at page 14.

43 The core databases include: ABI/INFORM®, Business & Industry™, Business Week, Business Wire, Computer Database™, Conference Papers Index, Dissertation Abstracts Online, Globalbase™, Inside Conferences, INSPEC, Internet & Personal Computing Abstracts®, The McGraw-Hill Companies Publications Online, Microcomputer Software Guide Online®, New Product Announcements /Plus® (NPA/Plus), Newsletter Database™, Financial Times Abstracts, New York Times Abstracts, San Jose Mercury News, Wall Street Journal Abstracts, PR Newswire, PROMT®, Softbase: Reviews, Companies, and Products, Trade & Industry Database™, Wilson Applied Science and Technology Abstracts, and World Reporter.

44[45] See PTO White Paper, at page 20.

3M, for example, has hosted groups of examiners to learn more about its technology and businesses.

According to the PTO White Paper, the PTO also continues to seek “business practice specialists” to serve as resources for examiner on well known industry practices in the areas of banking/finance, ecommerce, insurance, and Internet infrastructure, and will accept outside offers to act in that capacity. This initiative will be accompanied by a new second-level review of allowed applications in Class 705 prior to issuance, as well as an expanded sampling of applications for the PTO’s existing quality review process.

Finally, the PTO White Paper notes the PTO’s efforts, begun in 1999, to form customer relationships with the objective of improving the examination process. In particular, the PTO held a customer focus session in late 1999 concerning weaknesses in the quality of searches conducted by the PTO. The PTO White Paper also notes that the PTO has started to form customer partnerships with specific emphasis on examination within Class 705, hoping to gauge any future transition of patent application format toward the “business method form” and necessary shifts in the knowledge base of examiners to meet such changes. It appears that the PTO wants to be aware of new disclosure and claiming trends as they emerge.

In summary, the PTO White Paper essentially explains the world of business method patenting the way the PTO sees it, and provides documentation of the efforts made and to be made by the PTO to ensure higher quality examination. At the very least, the PTO White Paper represents an acknowledgement of significant problems in the examination of business method patent applications. With proper follow-through, this acknowledgement and the stated programs may lead to the issuance of less business method patents of suspect validity. They had better because business method applications will continue to pile up at the PTO’s doorstep, fueling more issued patents and, predictably, more controversy.

Adding Patent Value

The value of a patent, whether directed to a business method or otherwise, is often overestimated. For purposes of infringement and patentability, the measure of patent scope is the claims. The claims define the invention for the patentability determination made by the PTO examiner during examination, and analysis of infringement in both the litigation and licensing contexts. If the claims are drafted too narrowly so as to require certain features, and thereby exclude methods that do not incorporate them, the patent will not cover those methods. Although the claims may be initially very broad at the time a patent application is filed, they may be narrowed during patent prosecution in view of prior art cited by the examiner. In other words, the prior art may reveal that the initial claims are too broad, requiring refinement of the definition of the invention set forth in the claims.

Be aware that business method patents are available for a wide range of processes that may not be familiar patent fodder. For example, patent protection potentially may be

obtained for processes involving: auctions, incentive programs, insurance, taxes, banking, electronic payment, investment, real estate, retail, transportation, security, human resources, agriculture, advertising, scheduling, project planning, advertising, and delivery. It is important to understand that the platforms for such processes may take the form of not only Internet- and software-based systems, but also telephone, mail, and even pen and paper. Of particular note, the present state of the law suggests that methods embodied in the format of a written contract should be patentable.

Patent procurement can be an expensive process. Legal fees associated with a typical ecommerce application are in the neighborhood of \$10,000. PTO filing fees and additional legal services necessary in navigating the PTO examination process can cost another \$10,000. In the event you elect to file counterpart application in other countries, the overall cost of a single patent family can approach \$100,000. To obtain value-added patent coverage, you need to exercise foresight and reasoned judgment. You should appreciate the true scope of a patent and a number of strategic points that can reduce cost and increase value at the end of the day.

First, link your patent objectives with your business objectives and reflect them in your claims. Are you offering an online service such as advertising or information management? Are you licensing a format or protocol, or acting as a service bureau for transaction processing? What sort of revenue stream do you envision? Will revenues be derived from end-user flat fees, transaction-based fees, license fees from platform adopters, click-based fees, or retail sales? In each case, you should fashion your patent coverage to account for the commercial reality of your business.

If you have invented a process that, in general, is executed by the end user, you should understand that a lawsuit against thousands of end users (and potential customers) is highly undesirable and impractical. Instead (or in addition), you ought to pursue claims directed to software or processes implemented by your competitors to facilitate execution of the process by the end users. In this way, you will be able to more effectively pursue your competitors for direct infringement. An analog in the software industry is pursuit of claims directed to physical media containing the program code that is executed by the end user to run a patented process. It is ordinarily more desirable to pursue the distributor of CD-ROM's and the like, rather than the end user.

Also, it pays to think ahead about the migration opportunities and potential side-applications present by your invention. If you envision migration from conventional to wireless platforms, from distributed to centralized processing, or from one industry to another, you should draft your patent and claims accordingly. Linking a potentially broad-ranging business concept to a particular technology platform could cost you millions. In contrast to other technology areas, such as chemistry, business methods present not only alternative applications but alternative platforms for implementation, and those platforms evolve over time. If your web-based payment process may have application for Bluetooth-enabled devices, for example, it would be wise to contemplate delivery of service via both wired and wireless devices, as well as both networked and point-to-point methodologies. There is no requirement that you actually practice your

invention at the time of patent application filing. In other words, you do not need to have a working implementation in hand at the time you file your patent application. So, it pays to think ahead and consider supplementing the patent application with alternative but realistic implementations and uses.

Another problem that can trip up some companies in the patent game is their devotion to “open” platforms and protocols as a basic tenet of its business practices. Some companies avoid patenting altogether in view of the notion of open platforms. What they must realize is that securing patents is not entirely inconsistent with an interest in developing open standards. While patent enforcement may derail development of open standards, the procurement of a patent per se does not. In other words, ownership of a patent is at least one step removed from actual enforcement. Whether you believe in open platforms or not, it is nice to have a patent or two in your pocket to save for a rainy day. The decision to enforce the patents is an entirely different matter, and so long as the open platform develops as planned, you may elect never to enforce them. If one or two key players break away from the pertinent “club” and undermine the open development plans, however, the availability of patents at your disposal could save the day. Therefore, your support of open platform initiatives and procurement of patents need not be mutually exclusive.

Second, use your best efforts to become familiar with the technology area in which you are working and, in particular, the pertinent prior art. For many ecommerce patents, the concern for the patentee is not whether the claims will have sufficient scope, but whether they will stand up to scrutiny in court in view of the prior art. Many have predicted that invalidity will be the downfall of many of the early business method patents being issued by the PTO, and they may be right. In litigation, the defendant will be highly motivated to uncover prior art to invalidate your patent, as invalidity is an absolute defense to patent infringement.

If you can find the best prior art early in the process, draft your claims to steer around it, and then present the prior art to the PTO examiner during examination, you will have a much better chance of combating the defendant’s (or licensee’s) invalidity arguments. A patent is presumed to be valid. This presumption is very difficult to rebut when the PTO examiner has already considered the prior art on which the defendant relies in court. So, to produce a more robust patent, it is best to present to the examiner as much of the best prior art as possible. The examiner simply will not find the best art in many instances, and sorely needs your assistance. Although the notion of helping the examiner do her job may be counter-intuitive, it will result in a stronger patent for your company. Specifically, it pays to “test” your claims against the art within the PTO, before the defendant has the opportunity to test them in court.

Third, you do not need to get all of your coverage in a single “bite.” It is often useful to cut up your business portfolio into more manageable pieces, and pursue separate patent applications for each one. This approach has a number of advantages over the filing of a “jumbo” application encompassing your entire business. For example, prosecution within the PTO often can be made manageable and efficient. Also, the more concise

patents resulting from the strategy are more easily digestible by the court and jury. The patents can be isolated from one another to avoid contamination. In addition, the multiple patents can facilitate licensing of the separate inventions to different parties if necessary. These advantages may increase up-front costs to some degree, but pay dividends later in terms of ease of success in prosecution, enforcement, and licensing endeavors.

As for the first advantage, an examiner appreciates an overblown, overly complex, patent application even less than the court. It is wise to simplify and reduce the number of issues to be considered by the examiner in order to promote efficient prosecution and prompt issuance. In many cases, the examiner may require division of the application into several applications anyway via a so-called restriction requirement. The value of the second advantage should not be underestimated. Juries and courts, like anyone, work best when the issues are simple and few. Also, as a practical matter, juries and courts (and even some unsophisticated licensees) may be impressed by the larger number of patents held by a patent owner.

The third advantage involves isolation of different inventions to prevent prosecution delays in one application from affecting early procurement of coverage for all of your inventions, and well as to preclude attribution of prosecution history estoppel, inequitable conduct, and other unsavory events from affecting their validity, scope, or enforceability. Prosecution history estoppel refers to remarks made by a patent applicant essentially against its interest, and in relation to claim scope or prior art. The effect of prosecution history estoppel ordinarily is a limitation on the scope of the claims. Inequitable conduct refers to the applicant's failure to submit to the examiner all material prior art of which the applicant is aware, or otherwise conceal facts or mislead the examiner during prosecution. The strategy of separating your business portfolio into multiple patent applications, rather than a single omnibus application, is somewhat similar to the use of various bulkheads in the design of the Titanic to make it unsinkable.⁴⁵ Like the Titanic's bulkheads, the filing of a number of separate applications is not fail-safe. Nevertheless, this strategy can increase the odds that most of your patents will survive fatal errors or problems in other patents.

As for the fourth advantage, although field of use limitations are effective and widely used in carving a single patent into pieces for the grant of licenses to different parties, the filing of discrete applications can make the process even easier. This is particularly the case if the division of patent applications reflects a predetermined licensing strategy. Moreover, whereas a single application may have a unifying concept that binds the various inventions, several individual applications permit variation in their contexts and breadth. For example, a short-range wireless protocol useful in a system for payment of

45 For those few who are unfamiliar with the James Cameron movie (or the real-life event), the Titanic employed multiple bulkheads in series along the hull of the ship. The bulkheads separated the ship into multiple compartments. If one compartment ruptured and filled with water, the bulkheads sealed the other compartments to theoretically keep the ship afloat.

goods may have individual components, such as a combined data and voice interface, which have broad-ranging appeal outside of that context.

In summary, in your approach to patent protection, it is important to compare your patent activities to your business objectives. Once you have a coherent plan for protection, you should make every attempt to shore up patent viability and value by entering the examination process with ample awareness of the prior art. At the same time, you should avoid fixation on a particular platform, such as the one you envision at the time of filing. You should not be afraid to extrapolate the invention to the point of the “pie-in-the-sky” or impractical as an exercise to find the outer bounds of practical coverage. Finally, filing multiple applications can protect at least some of your inventions from the dents and scratches suffered by others during the PTO prosecution phase, and better support a licensing strategy.

Preserving Your Rights (Avoiding Forfeiture)

Despite the measures described above for enhancing the value of your patent rights, there are acts that you can commit well in advance of filing that can result in absolute forfeiture of your patents. Specifically, United States patent law prohibits the patenting of an invention that is disclosed or offered for sale more than one year before the filing of a patent application.⁴⁶ In light of recent developments in the law, the so-called “onsale bar” may be particularly unkind to applicants seeking business method patents. If you shop your new technology around, and then wait more than one year to file a patent application, you can lose your patent rights. The pursuit of customers and revenue can kill any patent rights you may hope to obtain. In the rush for short-term commercial success, you need to consider patent filing or risk sacrificing the long-term competitive advantage afforded by patent protection.

The on-sale bar balances different policy objectives. In particular, the on-sale bar restricts the time available for commercial exploitation of an invention in advance of patent filing, and thereby counters efforts to prolong the patent term and the exclusivity that comes with it. In this manner, the on-sale bar promotes prompt filing and early disclosure of inventions to the benefit of the public. At the same time, the on-sale bar offsets such interests against the inventor’s need to test the commercial appeal of an invention, providing a one-year grace period for patent filing.

In its most recent case on the topic, *Pfaff v. Wells Electronics*,⁴⁷ the Supreme Court held that the on-sale bar might apply to a product that is not yet in existence. The Court proclaimed that the on-sale bar applies to an invention that is “ready for patenting” even if the inventor has not reduced it to practice by producing a physical embodiment. Thus, the one-year clock imposed by the on-sale bar now begins to tick when two conditions are met. First, the invention must be the subject of an offer for sale. Second, the invention must be “ready for patenting.”

46 35 U.S.C. § 102(b).

47 119 S.Ct. 304, 312 (1998).

While Pfaff has raised concerns for all technology companies, it is especially troublesome for providers of Internet and ecommerce technology, which is characterized by swift movement from conception to commercialization. Internet and ecommerce inventions are often “ready for patenting” much earlier in the development process than inventions in more conventional technology areas.

To avoid forfeiture of potential patent rights, you should consider early filing of patent applications for inventions that can be readily implemented. As an invention becomes more refined, additional patent applications can be filed. In the meantime, the filing of an early application can preserve patent protection for the basic concepts. The ability to identify a potential on-sale bar, and understand its scope in light of Pfaff, will be important in safeguarding your patent rights.

According to the courts, little is required to create an “offer for sale.” A single offer may be enough, and whether or not the offer is accepted is completely irrelevant. Moreover, whether the offer is made on a confidential basis or to only a single customer is generally immaterial. If an invention is “ready for patenting,” the one-year clock may begin to tick as soon as a company attempts to take commercial advantage of it. Failure to file a patent application within the one-year period results in the loss of patent rights.

A basic example of an offer for sale is the marketing of a commercially available web application to end-users. Other less conspicuous activities can rise to the level of an on-sale bar, even when the end user does not immediately receive the product or service. At an industry trade show, for example, the mere mention of price for a future ecommerce application can unwittingly start the on-sale bar clock. Similarly, an advertisement or invoice that mentions pricing for an on-line search service may constitute an offer for sale even if no details of the underlying invention are disclosed. Although it is important to whet customers’ appetites for new products and services, your best sales representative could be your worst enemy in preserving patent rights.

Even if an invention is offered for sale, your patent rights may survive provided the invention was not “ready for patenting” at the time of the offer. According to *Pfaff*, an invention is “ready for patenting” when it has been reduced to practice or when the inventor has produced a description that demonstrates that the invention will work for its intended purpose. In the latter case, a physical embodiment is not necessary. Instead, it is sufficient that the inventor possess drawings, flowcharts, specifications, or other documentation that convey a sufficient level of detail for production of the invention.⁴⁸

48 In *Pfaff*, at the time the invention was offered for sale, the inventor had prepared only drawings. The invention was not physically produced until an order from a customer actually was fulfilled. However, the Court held that the level of detail provided in the drawings made the invention ready for patenting. In particular, the Court found that the drawings were sufficiently clear and precise to enable production of the device. The Court noted that the filing of a patent application requires no actual reduction to practice.

For many inventions, the requirement that the invention be “ready for patenting” significantly limits application of the on-sale bar. The extensive efforts often required to conceptualize an invention in the chemical or biotech arts may, in at least the early stages of development, support the notion that the invention is not ready for patenting. Determining the formulation and efficacy of a new pharmaceutical, for example, may require years of experimentation. Similarly, proper formulations for a new paint or adhesive may be apparent only upon field testing under real-world conditions. In each case, without further work, the inventor cannot be sure whether the invention will work for its intended purpose, and may have insufficient information to enable production of the device.

Business methods, on the contrary, may satisfy the "ready for patenting" condition much earlier in the development process. Upon development of a functional specification, or even the mapping of a flow diagram on a whiteboard, the architecture and operability of a particular business process may be readily apparent. Realization of the operable concept may come long before programmers actually begin producing software code to implement it. Nevertheless, the functional concept often will enable production of the invention, albeit with an investment of time and effort in the coding process. Consequently, following *Pfaff*, it appears that the "ready for patenting" condition could be more hostile to business method inventions than to inventions in less predictable arts such as chemistry and biotechnology.

Indeed, the functionality of an ecommerce application, and not the code that supports it, ordinarily is the essence of the invention. In theory, a wish list prepared on a cocktail napkin could satisfy the ready for patenting condition if a programmer could readily implement the desired functionality. Contrast this with the Dilbert-esque manager's request for a time machine, where the details sufficient to realize it are absent. For most business method inventions, variation in the code used to implement the invention, the programming language used, or even the platform on which the invention operates often will be irrelevant. Instead, the basic concept, or business method, will be at the root of patentability. Unfortunately, this means that the conceptualization of a business method invention could trigger the on-sale bar at a very early stage, despite the need to produce an extensive body of code for implementation.

If you are concerned about patenting your business method inventions, you should be on the watch for potential on-sale bar issues. The clock begins running when an invention is “ready for patenting” and has been “offered for sale.” In the Internet and ecommerce industry, an invention could be ready to patent as soon as it has been conceived. At the same time, an offer for sale can occur at any time, without the knowledge of a company's legal counsel. You should train and monitor your sales and marketing force to avoid on-sale bars. The safest course, however, is to file patent applications quickly following conception when commercially valuable patent coverage is at stake. Only then may you rest assured that the on-sale bar is not lurking behind your patent rights.

Rather, the Court recognized that many patent applications are filed before a physical embodiment of the invention is produced.

Conclusion

If you want to join the “run on patents” in the business method area, you should understand that business method patents are not so different from patents obtained in other areas over the years. It is important to recognize some of the distinguishing characteristics, however, such as potential shortcomings in the PTO examination process and the heightened impact of the onsale bar. Do not sell your technology short from a patent standpoint just because it is not of the conventional and familiar type patented in the past. In addition, you should try to cut through the rhetoric surrounding the business patenting phenomenon, and understand that business method patents are simply here to stay and your competitors are out seeking them. If you can navigate the sea of controversy surrounding business method patent, you may be able to exploit this phenomenon. It is often better to create the controversy than be the victim of it.