The Leadership of the USA on Business Method Patenting

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International attention has been focused on the issue of patents on business methods in the United States since the decision of the United States Court of Appeals for the Federal Circuit in 1998 in the case of State *Street Bank and Trust Co. v. Signature Financial Group*[1] In that decision the appellate court made it clear that there was no such thing as a subject matter exemption covering business methods in United States patent law. In reaching this conclusion the court was not engaging in judicial law making by extending the scope of patentable subject matter, but merely recognizing the rule well established by the United States Supreme Court that "anything made by the hand of man" may be patented. .

One hundred years ago more than a third of all U.S. patent applications dealt with bicycle technology. But, today, patents are routinely issued on gene fragments and bio-informatics as well as Internet business methods. My country's highest courts have recognized that a patent is a reward for innovation regardless of the subject matter. Before the *State Street Bank* case we saw this in *Diamond v. Charkrabarty*[2] in the area of life forms and in *Diamond v. Diehr*[3] in the area of computer software.

But, even back in the early days we were patenting business methods. Examples are: patent # 63889 describing a hotel register which was issued in 1857; patent #1,406,561 describing a business form which was issued in 1922, and Patent # 395,782 on the "art of compiling statistics" which was issued in 1889. A recent USPTO White Paper lists even more examples.[4]

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[1] 149 F 3d. 1368 (Fed. Cir. 1998)
[2] 447 U.S. 303 (1980).
[3] 450 U.S. 175 (1981)
[4] See, *White Paper – Automated Financial or Management Data Processing Methods (Business Methods*) at the USPTO web site, http://www.uspto.gov/web/menu/busmethp/index.html.

The vast scope of patentable subject matter in the U.S. means that any multinational company doing business in the United States must think very broadly in developing its patent strategy in the American market. Failure to patent aggressively in areas not considered to be classic, hard technology can result in a situation in which a product, service or way of doing business developed in Europe will be subject a patent infringement action in the U.S. if someone else has "invented "it first – even if they are not yet on the market with it.

And the cost of patent infringement is very high. A successful plaintiff in an infringement case can shut down manufacturing and sales operations in the U.S. which fall within the cope of the patent. Damage awards can run into the hundreds of millions and the legal costs of defending a litigation alone routinely exceed $1 million.

The broad scope of patents recognized in the U.S. is now extending to Japan as well. Recent interviews by my colleague, Jeffrey Brandt, reveal that while only 17% of all Japanese patentees filed business method patent applications in 1999, over 40 per cent intended to file such applications in 2000. In the banking industry 70% of patentees intended to file business method patents in 2000. In the communications industry over 30% intended to file business method patent applications. And, in the software industry over 65% indicated their intention to file business method patent applications last year. This means that of the three largest global markets, only Europe is slow to expand the notion of patents to include business methods.

The message is very clear. Those who operate under the assumption that patents cover only very technical subject matter in the electronics, chemical or pharmaceutical industries operate at their peril. Failure to develop a defensive patent strategy for software and business methods can result in being shut out of half of the largest markets in the world.

What kind of Patents Are We Talking About?

Last year the United States Patent and Trademark Office issued a "White Paper" entitled *Automated Financial or Management Data Processing Methods (Business Methods)*. [5] This paper provided a comprehensive overview of the history of business method patents in the United States as well as the current practices and procedures within the USPTO for handling business method applications. As I mentioned above, the Office takes the position that business method patents are nothing particularly new.

According to the White Paper the *State Street Bank* decision, while not fundamentally changing the law, "triggered an awareness of the' business method' clam as a viable form of patent protection." I think that this is a good characterization of the impact of the decision. As a result of this change of awareness, the paper went on to say, **"inventors are changing the approach to how they choose to describe their inventions."** The paper characterized this change as **"transitioning away from technology towards the end result the inventor is attempting to achieve with that technology."**

This phenomenon is nothing new in the evolution of the U.S. system. I think that it is the same kind of transition that has occurred with regard to software patenting. In the nineteenth

[5] See the USPTO Website, http://www.uspto.gov

century there were patents granted on mechanical devices which tabulated statistics, latter – in the early twentieth century – the tabulating of statistics began to be accomplished through devices that were a combination of mechanical and electrical technologies. In the last part of the Twentieth Century there was a rapid and profound transformation to electrical circuitry, integrated circuits, and finally pure software – all performing essentially the same function, tabulation. It was only logical, therefore that the patent system should have evolved with these changed means for achieving innovation.

From the point of view of public policy I believe that this evolution is a good thing. That is because the primary purpose of the patent system is to promote innovation. The grant of exclusive rights to an inventor is an invaluable tool enabling him or her to obtain the financing necessary to continue research and development and to put the resulting products into the market place. And, today, the fastest growing area of nearly every economy is the service sector – a sector in which innovation is going to be characterized by new uses of information technologies to create better methods of providing those services – in other words – business methods.

To better understand the kinds of service industry activities that are being impacted by business method patents, perhaps it would be helpful to look at how patentable subject matter is now being characterized in the U.S. Patent classification system.

Class 705 is a collection of more that 20 financial and management data processing areas. The PTO's White Paper characterizes these as follows.

1) Determining Who Your Customers Are, The Products/ Services They Need/Want
    Operations Research – Market Analysis

2) Informing Customers You Exist, Showing Them Your Products & Services, and Getting Them to Purchase
    Advertising Management
    Catalog Systems
    Incentive Programs
    Redemption of Coupons

3) Exchanging Money and Credit Before, During, and After the Business Transaction
        Credit and loan Processing
        Point of
        Sale Systems
        Billing
        Funds Transfer
        Banking
        Clearinghouses
        Tax Processing
        Investment Planning

4) Tracking Resources, Money, and Products
        Human Resource Management

Scheduling
Accounting
Inventory Monitoring

To carry out the examination activities that cover these listed items, the USPTO has begun to employ examiners with backgrounds outside the traditional areas of engineering, physics, chemistry and biology. As of last year twenty six percent of Class 705 examiners had work experience and training in fields including business consulting, management, sales, insurance, business information systems, and financial analysis. And the USPTO is actively recruiting additional personnel with experience in these disciplines.

Whenever the patent system shifts to a new focus – whether it is life forms, software, or business processes – there is usually a lag in the database available for making prior art searches in the new area. This is because historically the most important source of prior art data is pre-existing patents. And, where much of the state-of-the-art may be revealed instead in journal articles, books, periodicals, and scientific and professional papers, it is necessary to look at these sources to conduct an adequate search. In the area of business methods these sources even include such things as Internet web sites and sales brochures. Such databases include publications such as newspapers like the *Washington Post, the Wall Street Journal* and the *New York Times* as well as periodicals such as *American Banker Financial Publication, The Journal of Commerce*, *DIALOG Finance and Banking Newsletters*, and *Social SCISearch*® (published by the Institute for Scientific Information). The White Paper lists many, many more.

I think that it is important to pay attention to these sources of information because they give you a sense of the enormous change in perspective that you need in understanding the scope and impact of the United States Patent System at the present time. If you aren't thinking about patents with regard to the kinds of business developments reported in these publications, and you are doing business in the United States, you may be flying headlong into the storm of disastrous patent litigation.

Identifying a Company's Intellectual Property

Vigilant protection of inventions, copyrighted works, trademarks and trade secrets protect a company's competitive advantage by preventing others from copying successful elements of the business. However, a comprehensive intellectual property policy should do more.

First, securing a strong portfolio of intellectual property is important from a defensive point of view, particularly as regards patents. Subsequent to the Court of Appeals for the Federal Circuit's decision in the case of *State Street Bank v. Signature Financial Corp.* many financial services firms are beginning to file patent applications on methods of doing business. To the extent that a company does not identify and secure patent protection for its own protectable business methods, it risks the possibility that competitors will successfully obtain patents on the same or similar subject matter, creating the risk of liability for infringement.

My colleague, Jeffrey Brandt, has spent many years in the corporate patent departments of companies such as General Electric and IBM. More recently, he developed the patent

portfolio for a prominent e-commerce company in the United States. It his experience that in traditional industrial companies three to four documented inventions are generated for every $1million spent on research and development. But, in knowledge-based companies, this number doubles because innovation is more common and less expensive and innovations derive from the creativity of line workers, not just from money spent specifically on research and development. Indeed, relatively small projects may generate dozens of documented inventions and resultant patent filings.

The following is a sampling of the patent activity of several companies in the software and business method area.

- Microsoft ……1,500 patents in force
- IBM……..3,000 patents in force
- Citibank……77 patents in force since first filing in 1995
- Chase Manhattan……..15 patents in force since first First filing in 1997
- Walker Digital (Priceline)……35 patents in force since 1996

In many industries, particularly in consumer electronics, the filing of patents for defensive purposes gives companies something "to trade" in a cross licensing context if a competitor develops a patented invention which it may need to stay current in the industry. While it is still too early to tell how the use of business method patents will evolve, it is entirely possible that the ability to cross license will be of great value. If an enterprise has no patents of its own, it will have nothing to cross license.

Apart from its value in protecting competitive advantage and providing cross licensing opportunities, a portfolio of intellectual property has stand-alone value in its own right. Patents – and even copyrights – can be valued. There are numerous consultancies which provide valuation services which can place an asset value on a patent or copyright. In addition, there are newly emerging tools such as the Patent & Licensing Exchange's Truu Metrics Valuation system (based on the Black-Sholls Option Price Formula) which attempt to establish appropriate market prices for intellectual property. The ability to assign value to the company's intellectual property portfolio can strengthen its financial situation by increasing its measurable assets.

Of course, effective valuation of patents, trademarks and copyrights can increase a company's asset value on paper, but it also can do more. It can lead to revenue generating activity based on the licensing of the intellectual property itself. Let me put this in the context of financial institutions. Licensing opportunities come in many colors and flavors. First, identification of patents and copyrights and inclusion of licenses for these rights in contracts between affiliated institutions such as banks, mortgage lenders, and loan consolidators can serve as a means of tying those organizations much more closely together in marketing to consumers. Second, licensing activity can provide a freestanding source of revenue for a company, particularly in situations where software or business method inventions or software copyrights have applicability to business activities outside any company's core business.

As an example, most financial institutions in the world are constantly developing methods and software which may have significant utility outside the their primary market. For example, in the case of a bank there may be a licensing market for its inventions in other areas of the financial services industry such as insurance, real estate and securities trading. But, with a little market research, innovations may be found to have value in improving productivity or supporting new applications in businesses very far removed from a company's core business. Intellectual property can be marketed and sold into these non-core markets with resulting windfall revenue.

Licensing activity can range from efforts as passive as making the company's patents available for licensing on an electronic exchange such as the Patent & License Exchange or Yet2.Com to creating "spin out" enterprises based a company's software and Patents. As example of a spin out would be a fortune ten manufacturing company using its proprietary personnel management software as the foundation for a new enterprise which would market personnel management software to large business and government organizations in general.

The bottom line is that any company undoubtedly is sitting on inventions and software which have market value beyond its core business, and these inventions can become a source of additional revenue for the company with limited additional investment. A Proposed Action Plan

As discussed above, any company needs a comprehensive program to identify and secure maximum legal rights in all its intellectual property. The results of this program will be to enhance the company's competitive advantage in its existing markets, to defend against the possible inventions of others, to increase the company's asset value, and to create new streams of revenue. Let me give you a description of a program that my colleague Jeff Brandt and I are creating and implementing at a large financial services company in the United States.

An Action Plan

Step One – the IP Audit

At the outset it is necessary to review relevant company documents and interview managers and employees to determine the company's likely sources of intellectual property rights. This begins with cataloguing existing patent documentation, trademark registrations and copyright registrations. It continues with identifying possible intellectual property rights which have not yet been effectively secured.

Step Two – Creating Company Protocols

It is important that the company identify and keep track of its intellectual property on a systematic basis as soon as possible after it is created. To accomplish this there should be a written policy, training materials and a training program which will result in employees' ability to identify intellectual property which they may be creating and to notify the legal department of its existence. This program should include a systematic method for screening inventions for patentability, and for filing trademark and copyright registrations where appropriate. There also should be a written policy on identifying and protecting trade secrets. Employee training programs should include education on this subject.

Step Three – Creation of a Portfolio of Patented Business Methods and Software Inventions

The audit process described above will result in identified inventions for which patent applications should be filed. The company should make arrangements with one or more patent law firms to provide this service in a timely and cost effective manner. Ideally, the firm providing these services would take advantage of the Unite States Patent and Trademark Office's (PTO) new capacity to accept applications in digital form, on line. This will enable the company to keep current with the status of its applications electronically. Patent applications are published 18 months after filing at the PTO. This will alert the industry to the company's proprietary position. Conversely, the company should be reviewing the Official Gazette of the PTO for evidence of patent activity of its competitors, so that it can determine whether it is likely to become involved in an "Interference" with another patent applicant and whether it needs to develop a strategy to deal with a competitive patent which may in some measure block the company's own business activities.

Step Four – Develop an Invention Disclosure Program for Non Trade Secret Inventions the Company Does Not Choose to Patent

From a defensive point of view it is very important that a company's decision not to assert its exclusive rights in the form of a patent, not result in someone else latter filing on the same invention. This can be prevented by a system of filing invention disclosures without seeking actual patent protection. In the area of business methods, the American Inventors Protection Act of 1999 contains a so-called "first inventor defense" which creates an affirmative defense for a company charged with infringing "methods of doing or conducting business" if the company had been using the method commercially for at least a year before the patentee alleging infringement filed his or her patent application.

Step Five – A Program to Police the Company's Intellectual Property

As the company develops its patent portfolio it should have a program to alert itself about possible infringers. This includes educating employees about the company's patent position so that they can identify and alert the legal department to possible infringements they may encounter in the course of their activities in the marketplace. It also can include a regular review

of the trade press and competitor's marketing materials for signs of infringement. This latter activity can be assigned to paralegal or library staff with appropriate training.

Policing of trademarks is especially important because failure to do so can result in the loss of rights in the mark. In all probability the company already has a policy in this regard, but if it does not, this should be regularized and procedures for standard cease and desist notices should be put into place as the first step in the enforcement process.

Step Six – Valuation and Licensing

If the company's portfolio of software copyrights or software and business method patents is to contribute to the company's value, the portfolio itself must be assigned a value. Use of a tool such as PL-X's Truu Metrics system and/or industry consultants may be used for this purpose.

A system for identifying licensing opportunities should be developed. At the first level this consists of licensing infringers where the company concludes that its interests are best promoted through a license rather than asserting market exclusivity. This kind of licensing is often helpful in making a company's proprietary technology the "industry standard" while generating additional revenue for the company.

At the second level the company should consider making its technology available on the market through the nascent electronic exchanges that have begun to appear in the last year.

At the third level the company can employ consultants or in house staff to identify and market to potential licensors outside the company's core business.

At the highest level, senior management should be alert to the "spin-off" possibilities described earlier.

Step Seven – Monitoring Legal and Legislative Developments and Developing a Response

The *State Street Bank* case has generated controversy. Legislation has been introduced in the House of Representatives to restrict the impact of the holding. This legislation could impact on patent strategy and needs to be followed. These developments need to be monitored systematically. Also, the case law will continue to develop and the company needs to be aware of any changes in its plans which new judicial decisions may necessitate.

The Future of Business Method Patenting in the United States and Elsewhere

If there has been any message in this talk today, it has been that business methods are being actively patented in the United States and Japan. Within the last few years, large financial services and software companies have begun to recognize that they must follow in the footsteps of established industrial companies and begin to develop large patent portfolios.

There is no reason to believe that this trend will change. While there has been some public criticism of business method patenting, the same kind of criticism followed the judicial expansion of patentable subject matter in the area of life forms and computer software over two decades ago. And in neither case did Congress intervene to restrict patenting in the new area. While legislation has been introduced and Congressional hearings may be held, the weight of opinion among patent professionals in the United States is overwhelmingly against any legislative intervention to restrict the subject matter of patents. Therefore, change is unlikely, and anyone doing business in the United States is well advised to consider measures to adjust to these new conditions.