How Will Patents on Business Methods Affect E-commerce?[†]

Shi-Ting Chu

LLM Student, University of California, Berkeley, Boalt Hall School of Law (Received 18 January 2002)

The paper discusses the important role played by patents on business methods in the development of e-commerce. Monopolization of a company over the Internet with business method patents and its effect on other companies doing business on Internet is also discussed. Famous Internet business method patents and litigations from them, alternative forms of protection for Internet business methods, advantages and disadvantages of patent protection for Internet business methods, new legislations for business method patents, business method patents in Taiwan, and Internet business method patent strategies for e-commerce companies, are also discussed extensively.

When you are surfing the web, trying to find a cheap airline ticket, the first website you might want to give a shot would be priceline.com. Through its patented reverse auctions system, you can "name your own price" while bidding for a ticket, hotel room, or even several other products and services online. More and more methods of doing business on the Internet, like priceline.com's reverse auctions system, are developed every day in the fast changing Internet environment.

Since the United States Court of Appeals for the Federal Circuit abandoned the so-called "business method exception" to patentability in State Street Bank & Trust Co vs Signature Financial Group Inc , and held that mathematical algorithms and business methods are patentable subject matter, as long as they produce a useful, concrete, and tangible result, a large amount of Internet related business method patents have been granted.

Therefore, patents on business methods have played a very important role in the development of e-commerce. However, it should be considered at the same time, whether a company can or should be allowed to monopolize over the Internet with business method patents and what the effects are for the companies doing business on the Internet, which is a very controversial issue in patent law. The

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above questions have been discussed in recent cases; for example, questions about the validity of the One-Click patent are raised in the case of Amazon.com Inc vs Barnesandnoble.com Inc.

The debates over Internet business method patent have never ended, that is why there are new legislations either passed or pending in the US Congress and in many other countries as well in order to, or actually hoping to, improve the business method patent.

Will patent for business method eventually benefit e-commerce? How will it affect e-commerce? These are the questions worth particularity thinking by people who care about how they would proceed in the new digital age. The answers to them, may not be so sure at the present time, however, most of them may possibly agree that cyberspace is a frontier for human beings to explore for now and for the future.

Internet

The Internet, connecting millions of computers and users worldwide today, was originally developed in the 1960s by the Department of Defense of the United States. and the purpose was to communicate as a nuclear war breaks out. It became commercialized in the mid-90s and is relatively popular to almost everyone nowadays. In 1973, the US Defense Advanced Research Projects Agency (DARPA) undertook a research programme to develop techniques and technologies for linking various kinds of packet networks. The objective was to develop communication protocols, which would allow networked computers to communicate across linked packet networks. This project and the system of networks, which evolved from the research, were known as the "Internet." The system of protocols then became known as the TCP/IP Protocol

World Wide Web

The best known and most commonly used over the Internet is the World Wide Web (www), which allows users to search for and retrieve information stored in remote computer servers anywhere in the world. There are numerous web sites and web pages on the World Wide Web, including texts, images, sounds, and videos. There are also hyperlinks that allow viewers of web sites communicate with the site's owner, and link to other documents within the site or to other related sites. The World Wide Web brings a wide variety of resources linked together, and provides a international information super highway.

E-commerce

Electronic commerce is a profitable area of Internet and has become the common term for the practice of conducting of business communication and transactions over computer networks. In other words, electronic commerce is the buying and selling of goods and services, and making payments through digital communications. However e-commerce also includes transactions between companies such as marketing, finance, manufacturing, selling, and negotiation.

Expansion of E-commerce

According to the survey by Nielson/ NetRatings, people in the United States have spent \$3.5 billion online in March 2001. That is to say, e-commerce in the United States has increased 36% from a year ago, and almost half (100.2 million people) of all Americans over 18 years of age have purchased over Internet in March 2001. In comparison with the beginning of Internet's commercialization and popularization, which took place in the mid-90s, the growth of e-commerce is amazingly fast. Because of the unlimited business opportunities on the Internet, more and more individuals companies are eager to jump into it in the hope of receiving a large fortune.

Business Method

There are countless definitions for business method. One of the authoritative definitions is from United States Patent Classification 705. which defines business method as "apparatus and corresponding methods for performing data processing operations, in which there is a significant change in the data or for calculation performing operations wherein the apparatus or method is uniquely designed for or utilized in the practice, administration, or management of an enterprise, or in the processing of financial data."

Besides, business method by the definition of the recently proposed legislation, "Business Method Patent Improvement Act of 2000,"means "a method of administering, managing, or otherwise operating an enterprise or

organization, including a technique used in doing or conducting business; or processing financial data...any technique used in athletics, instruction or personal skills" and " any computer-assisted implementation of a systematic means...or a technique" for the foregoing.

From the definitions above, it is hard to make a clear definition for the term "Business Method", and this ambiguity has become one of the reasons that make the patentability of business methods controversial.

Patent Protection for Internet Business Method

Because of the popularity of e-commerce, many companies want to protect their methods of doing business online. Internet companies have been seeing patent protection for new Internet business models. Many of these patents have been issued following the recent decision in State Street Bank & Trust Co vs Signature Financial Group Inc, where the United States Court of Appeals for the Federal Circuit recognized that methods of doing business are patentable subject matter, as long as they produce a useful, concrete, and tangible result.

Shortly after the Federal Circuit's decision on State Street Bank & Trust Co vs Signature Financial Group Inc, the United States Patent and Trademark Office (USPTO) has granted a huge amount of patents to e-commerce business methods. This trend shows the USPTO and the Federal Circuit are gradually recognizing technological

development and the need to extend the scope of patentable subject matter, and has resulted in a dramatic increase in the number of patent applications filed on business methods.

US Patent System

According to the US Patent Act, there are five primary requirements of patentability: patentable subject matter, novelty, utility, nonobviousness, and enablement

As the first requirement, patentable subject matter, also called statutory subject matter, is vitally important because it is the factor that decides whether a subject matter is patentable, and people always start from here when reviewing a patent. USPTO will not issue a patent if something is obviously excluded from patentable subject matter. When Congress passed the US Patent Act in 1952, the patentable subject matter included anything under the sun that is made by man. After years, the Courts have gradually made several exceptions. such as natural phenomena, abstract ideas, and laws of nature, mathematical algorithm, and business method. They are excluded from patentable subject matter. Among them, mathematical algorithm exception and the business method exception have the greatest influence on e-commerce.

Mathematical Algorithm Exception

In the past, mathematical algorithm was considered unpatentable subject matter because it could be viewed as the expressions of laws of nature, natural

phenomena, or abstract ideas. As a matter of fact, computer software is composed of mathematical mainly algorithm. Therefore. when people traditionally excluded mathematical algorithm from patentable subject matter, computer software had also been excluded at the same time for the identical reason.

Business Method Exception

The business method exception was first created in 1908 by the Second Circuit in the case of Hotel Security Checking Co vs Lorraine Co. After that, USPTO accepted the court's opinion, and added the business methods exception to its Manual of Patent Examining Procedures (MPEP). Thus, business methods were regarded as unpatentable subject matter for decades until the Federal Circuit's decision on the case of State Street Bank & Trust Co vs Signature Financial Group Inc.

Turning Point-Federal Court's Overruling on Those Two Exceptions

In 1993, USPTO granted a patent to Signature Financial Group, Inc for protecting a financial data processing system, which functions to input, process, store, and retrieve data. State Street Bank & Trust Co, tried to negotiate with Signature Financial Group Inc about licensing the patent. However, the negotiation was unsuccessful, and a suit was brought by State Street Bank & Trust Co into the court, challenging the validity of the patent. The district court found the system unpatentable because it is mathematical algorithm and business

method, but in 1998, the Federal Circuit reversed the district court's opinion and held that mathematical algorithms and business methods are patentable subject matter, as long as they produce a useful, concrete, and tangible result. After that, a huge amount of Internet business method patents have been granted.

Famous Internet Business Method Patents and Litigations

Priceline.com's "Reverse Auction" Patent Priceline.com's "Reverse Auction" patent, also known as "name your own price" bidding system, allows online consumers set a price that they are willing to pay for certain products or services, such as airline tickets and hotel rooms. Then, the providers of the products or services will decided whether to accept or to decline the price set by the consumers.

On 13 October 1999, Priceline.com sued Expedia.com, a travel web site of Microsoft. for infringement Priceline.com's "Reverse Auction" patent. because Expedia.com also allows consumers to set a price for a hotel room, and then hotel operators bid for the consumer's business. While this case was pending in the United States District Court in Connecticut, Priceline.com and Expedia.com reached a settlement out of court to solve this problem on 9 January 2001. Expedia.com agreed to pay a certain amount of licensing fees, in exchange for the right to continue to use reverse auctions system on its web site.

Sightsound.com's Patent for Downloading of Digital Music

In 1993, Sightsound.com got a patent for downloading digital music from the

Internet. This patent is essential for companies, which intend to conduct selling digital audio or video over the Internet, and in September 1999, Sightsound.com sued CDNow.com for patent infringement. Sightsound.com also demanded other Internet companies involved in downloading digital video or music, such as MP3.com, pay royalty.

Amazon.com's "One-Click" Patent

Amazon.com, a very famous online retailer, has one of the world's best-known business method patent- "One-Click" Patent. This patent allows consumers to make their orders simply with one mouse click if their mailing and billing information is already stored in the web server previously.

On 21 October 1999, Amazon.com sued Barnesandnoble.com, Inc infringement of Amazon.com's "One-Click" patent. Amazon.com alleged that Barnesandnoble.com,Inc. uses a similar feature in its "Express Lane" shopping process. On 1 December 1999, the United States District Court in Seattle. Washington granted Amazon.com a preventing preliminary iniunction Barnesandnoble.com, Inc from using the "One-Click" technology on its web site.

However, on 21 February 2001, the Court of Appeals for the Federal Circuit vacated the District Court's order, and held that Amazon.com was not entitled to a preliminary injunction. After reviewing the prior art and expert testimony, the Court of Appeals for the Federal Circuit concluded that the evidence in Amazon's favour was not strong enough, and that

Barnesandnoble.com has challenged the validity of the One-Click patent. Consequently, the court found that the evidence did not entitle Amazon to a preliminary injunction.

It is expected that there will be a great increase in the number of disputes involving these Internet business method patents, as patent holders seek to enforce their rights for the purpose of gaining a competitive business advantage and their competitors seek to challenge these patents at the same time.

Alternative Forms of Protection for Internet Business Methods

In fact, patent is not the only way to protect Internet business method. Trade secret, trademark, and copyright are several alternative forms of protection for intellectual property.

Trade Secret

One traditional way which is frequently used to protect intellectual property is trade secrecy. Trade secrets significantly differ from patents in several ways. First, a patent is exclusive for the period for which it is granted, but a trade secret is protected only so long as others fail to duplicate it by legitimate independent research. Second, trade secret laws allow reverse engineering. Third, trade secrets are not necessarily to be new, novel, or unique. Trade secrets are protected by being kept secret, whereas a patent is protected after being spread on the public.

Generally speaking, methods that are completely internal to a business or that can be totally controlled by the business

can be used for protection as trade For instance, mathematical secrets. formulas, which are used manufacturing processes, such as equations for optimal batch sizes and ingredients, may be protected by trade secret. Trade secret protection is often used in the field of accounting as well. For example, stock valuation methods can become a trade secret.

However, selling method is not suitable to be used as trade secret protection because selling methods involves disclosing the methods to parties outside the business. If the trade secret is disclosed, it will not be a trade secret any more. As a result, Internet business methods developers who want to distribute their products or services as widely as possible, may find patents the better form of protection for their intellectual property.

Trademark

Trade dress is a form of trademark protection designed to protect the "look and feel" of products and their packaging. Therefore, it can provide protection for the aesthetic aspects of software interfaces for Internet business methods.

However, under trademark law, trade dress protection does not apply to the functional characteristics of a product. Thus, while trade dress may be able to protect the user interface of a particular software application, it is not necessarily to protect the vital functionality of the application. However, trade dress protection may serve as an ideal complement.

Copyright

A copyright is a kind of intellectual property right which is granted to the creator of artistic and literary works. A copyright owner has the exclusive right to make copies of the work but has no right to prevent others from using the ideas or information involved in the work. The copyright protection afforded by law is valid as soon as the work is recorded in some concrete form. Therefore, in most cases the work is not submitted for registration.

There are several important distinctions between the processes of securing and patents, copyrights and protections afforded thereby. First, the process of securing a patent takes much longer, and is much more expensive than the process of securing a copyright. Second, copyright infringement requires another person's wrongful behaviour, while patent infringement may occur by independent developer with good faith. Third, patents are more effective in protecting intellectual property than copyrights because they protect the useful ideas not only the expressions. Last, the term for copyright protection is much longer than the term for patent protection.

Advantages and Disadvantages of Patent Protection for Internet Business Methods

It goes without saying that patents on business methods have an enormous influence on e-commerce. Although USPTO and patent authorities of many other countries do issue patents on business methods, it is still controversial about the validity of those patents, and whether patent protection is the best way to protect those Internet business method. There are both advantages and disadvantages in patent protection for Internet business method. Besides legal considerations, there are also economic concerns regarding this issue.

Advantages

To acquire patents is essential for Internet companies as well as the growth of ecommerce. A patent is an important incentive for corporations to develop new products. With patent protection, companies can benefit from the novel products they invent. Patents are useful for marketing activities. If patents are described in the promotional material and advertisements of a product, it may convey the message to consumers that the product is innovative and unprecedented.

There are financial benefits a company can attain from patent protection. One of them is that patents make a company acquire capital easier. Patents models operation are particularly beneficial to Internet companies. Most of venture capital companies will regard patent as an important factor when they consider investing in an e-commerce company.

Disadvantages

There is argument that patents are not necessary to encourage the invention of new Internet business methods. The reasons for this argument are two-folded. One is that other mechanisms such as head start advantage, trade secrets, and trademark can also serve as incentives leading to innovation. The other is that

the profitability of market provides adequate incentive for some inventions.

The head start advantage refers to the benefits business methods enjoy as a result of being the first to invent. With the first image ingrained to consumers, the companies with head start advantage have an economic advantage over their competitors. Likewise, trademarks can convey the message regarding the image and spirit of a brand or a company. As a result, an effective trademark can enable a company's competitive advantage to last longer. Another disadvantage for patent is the monopoly granted to companies. This monopoly will reduce the amount of competition on the Internet marketplace. In fact, the costs related to the reduced competition will outweigh the benefits from increased innovation on the Internet. The costs associated with competition reduction resulted from patent in Internet business methods may be more than those in a physical marketplace, because the patent will restrain many other competitors from entering the digital market, and thus lead to market inefficiency.

Moreover, because of the enormous expenses involved in a patent lawsuit, start-up companies on the Internet may be in a difficult position when it comes to competing with those big companies. A big firm has the adequate resources to challenge a small firm's patent, and this may force start-up firms to be out of business.

New Legislations for Business Method Patents

The debates over Internet business method patent have resulted in a series of new legislations either passed or pending in the US Congress and in many other countries as well in order to, or actually hoping to, improve the business method patent. Following are two legislations, one passed and the other pending, in the United States.

Recent Legislation- American Inventors Protection Act of 1999

American Inventors Protection Act of 1999 has made some important changes to US patent law, such as:

First inventor defense—If an alleged infringer can prove that he has reduced to practice a business method at least one year before the patent's effective filing date, and that he used the business method commercially in the United States before the effective filing date, he can avoid infringement.

Inter parties reexamination—American Inventors Protection Act of 1999 allows third party, who wants to contest the validity of a patent, to file a request for patent reexamination in the USPTO. It provides for more complete third-party participation in reexaminations, with appeal procedures being available to third parties to the Board of Appeals.

Patent term guarantees—American Inventors Protection Act of 1999 extends the expiration date of a patent if processing of its application is delayed for some reasons beyond the inventor's control, such as interferences, secrecy orders, appeals, or when the USPTO fails to grant the patent within three years.

Publication of patent applications
—American Inventors Protection Act of
1999 requires publication of pending US
applications 18 months after filing. So it
would become easier to obtain
information about competitors' pending
patent applications 18 months after they
are filed.

Reduced patent fees—The USPTO will reduce the fee for filing certain new applications and maintenance fees. The fee reductions will be approximately 10%.

Pending Legislation- Business Method Patent Improvement Act of 2000

On 3October 2000, Representatives Howard Berman (D-CA) and Rick Boucher (D-VA) presented to Congress the "Business Method Patent Improvement Act of 2000", HR 5364 (the Act). The Act would make some amendments to the patent laws, and make business method patents harder to obtain, and easier to challenge.

The Act defines the term "business method" as "a method of administering, managing, or otherwise operating an enterprise or organization, including a technique used in doing or conducting business; or processing financial data...any technique used in athletics, instruction or personal skills" and "any computer-assisted implementation of a systematic means...or a technique" for the foregoing.

The key points of the Act include the following:

- (i) It would require the USPTO to publish all business method patent applications after 18 months.
- (ii) It would create a new opposition panel for business method patents that would be less expensive and faster than litigation.
- (iii) It would lower the burden of proof for people who want to challenge a business method patent.
- (iv) It would set low fees for filing some opposition to a business method patent
- (v) It would create a reputable presumption of nonobviousness for an invention that uses a computer to implement a business practice
- (vi) It would require the USPTO to conduct a rule making proceeding to amend the rules to require an applicant for a business method patent to disclose the applicant's search for prior art.

The Act wants to take away the fears that bad business method patents will promote monopolization of the Internet and discourage technological innovation. The Act would remove such obstacles to competition by encouraging people to challenge bad business method patents by faster and cheaper means than traditional patent litigation.

Business Method Patents in Taiwan

According to recent survey conducted by "iamasia" (Interactive Audience Measurement Asia), there are 6.4 million

Internet users in Taiwan. With the fast growing online population, online spending is increasing at a very high speed. Internet business methods play important roles in the development of ecommerce. The concept of business method patent has been introduced to Taiwan and may gradually become a popular issue in recent years.

Just like other countries, business method was not patentable in Taiwan before. According to the holdings of Taiwan Administrative Court's No.1136 Case in 1988, "computer software without the combination with computer hardware is not patentable subject matter under Taiwan Patent Law."

Standards for Reviewing Computer Software Related Inventions

For the purpose of keeping up with the international trend of patent protection for computer software, especially following the precedent previously set up by the United States and Japan, the former Central Standards Office (now Intellectual Property Office) has established "the Standards for Reviewing Computer Software Related Inventions" in October 1998.Generally speaking, methods of doing business can be put into two main categories.

(i) Business methods not related to computer systems

According to Article 19 of Taiwan Patent Law, "Invention" in this Law refers to a highly advanced creation of technical ideas by which laws of nature are utilized. If a business method is not

related to computer systems, it will not be regarded as a technical idea by which laws of nature are utilized. Therefore, it will not be patentable.

(ii) Business methods related to computer systems

If a business method in which computer systems are utilized, it may be patentable under "the Standards for Reviewing Computer Software Related Inventions." In "the Standards for Reviewing Computer Software Related Inventions," there are two kinds of inventions that are recognized in accordance with Taiwan Patent Law. They are product patent and process patent.

Product Patent

Any industrially applicable invention by which laws of nature are utilized, and its structures are combined by hardware and software. It can be further classified into two types: (i) The software can be run in any kind of hardware inventions, (ii) The software has to be combined with a specific kind of hardware.

Process Patent

The computer software process invention is emphasized on how to execute one or more procedures, operations or steps in order to make concrete outcomes. Whether the process mentioned has occurred inside or outside the computer, this kind of invention can be divided into three different types: (i) Process invention for concrete transformations of information or signal before computer processing, (ii) Process invention for the

control of hardware after computer processing, and (iii) Computer software restricted to the application of specific technical area.

As far as the patentability of business methods is concerned, it is said in "the Standards for Reviewing Computer Software Related Inventions," due to the wide usage of computer software, many inventions (including product inventions and process inventions) among various kinds of industries can take advantage of computer software and its related technologies. Therefore, when reviewing a patent of this kind, we cannot make a decision merely based upon the classifications of industries, which utilize computer software. Instead, we should take into consideration the nature of the technologies utilized. For example, we distinguish using computer software and its related technologies in the methods of doing business from only the methods ofdoing business themselves. The former may patentable, but the latter may not.

When determining whether using computer software and its related technologies in the methods of doing business is patentable or not, we should turn to Article 19 of Taiwan Patent Law. Thus, after "the Standards for Reviewing Computer Software Related Inventions" took into effect numerous inventions (including product inventions and process inventions) using computer software and its related technologies, such as buying, selling, or other kinds of transactions over the Internet may be patentable under Taiwan Patent Law. The Intellectual Property Office will no longer

turn down patent applications simply because they are business methods as long as they meet the criteria in Article 19 and Article 20 of Taiwan Patent Law.

Internet Business Method Patent Strategies for E-commerce Companies

Since we have compared the alternative forms of protection with patent protection for Internet business method in the previous paragraph, we know that there are both advantages and disadvantages in patent protection for Internet business method. Although most of the countries in the world do issue patents on business methods now, we have other choices, namely, trade secret, trademark, or copyright. Therefore, the best strategy for e-commerce companies is to evaluate their business methods very carefully before deciding which kind of protection to use.

If a company, after carefully considering all relevant matters, has decided to protect its Internet business method by patent, following are some strategies in both management and litigation issues.

Strategies in Corporate Management

(i) Manufacturing-outsourcing

Many of the most profitable companies do not do everything by themselves. As a matter of fact, it is a common practice for companies to outsource components of their products in numerous hi-tech areas, but most of them are manufacturing companies that produce tangible products in the physical world. However, with the recent emergence of Internet business

method patents, now the same thing may happen in cyberspace as well. Because patent makes the scopes of the business method clear and definite by detailed descriptions in its claims, it facilitates and encourages the implementation outsourcing. For better profit, an ecommerce company, which has business method patents, can easily outsource some of the products or services, such as, the development or improvement of software, computer systems, and website design simply by making patent licensing agreements and subcontracts with other companies, and hold back its core technologies. This is more likely to happen in a Business-to-Business scenario. For example, when a large company which has many Internet business method patents wants to maximize its profit from the comparative advantage point of view, it may simply outsource to small start-up companies by allowing small start-up companies to use some of the patents and participate in the business in a limited manner. In other words, we can expect the business practice of OEM or ODM in the Internet industry in the foreseeable future.

(ii) Financing

Patent is helpful for those companies in search of funds from capital markets. When a company is seeking financial support from venture capital firms, if the company has Internet business method patents, the venture capital firms will be more likely to be willing to offer the financial support. This is true especially for start-up companies, which possess an abundance of new and innovative ideas

about business methods, but have no way to carry them out for lack of money. In fact, venture capital firms may be reluctant to fund start-up companies because those start-up companies do not have a strong and profitable history background and a huge amount of assets to convince venture capital firms to give out money. However, Internet business method patent is concrete enough to make venture capital firms feel more confident on the start-up company which have the patents, and therefore, it will stand a better chance to get the funds.

(iii) Marketing

Patent is one of the most persuasive advertisements when you are putting your product or service into the market. If patents are described in the promotional material and advertisements of a product or service, it may convey the message to consumers that the product or service and unprecedented. is innovative Consumers may be willing to pay even more money on the product or service with patent than that without patent. Internet is a market place where there is information asymmetry. Therefore, taking good advantage of Internet business method patent in the company's advertising strategy combining with proper pricing strategy would be one of the most powerful plans to gain more profit and even get closer to the successful position in the arena of ecommerce

(iv) Licensing and cross licensing

As a patent owner, you may either choose to practice the patent by yourself (that is

usually to produce the product) or to enforce the patent (which often refers to exclude others from using that patent). Otherwise, licensing, which means to authorize other companies to practice your patent and get royalties in return, would be a profitable way to generate good revenue. When negotiating with other party that has relevant patents as well, you may choose to cross licence each other, and avoid paying out for licensing. Moreover, cross licensing could be an effective method to solve the problem of blocking patents.

Strategies in Litigations

Patent is important for a company because it means monopoly power. Sometimes, a company can actively use its patent to defeat competitors; sometimes, patent can be used as a defense weapon when its competitors are accusing a company of a patent infringement.

(i) Small company first? Big Company first?

There is an argument that the better litigation strategy for business method patent is to initially sue smaller companies first. As a matter of fact, smaller companies usually do not have plenty budget in hiring good lawyers and challenging your patent. So, you have better chance to win the case and build a precedent in favor of you. However, reverse strategy may also make sense. For instance, if you can get Microsoft to settle, you will not have to make any further efforts, and then other small

companies will almost certainly follow Microsoft without hesitation.

(ii) Are we currently licensing that patent to other parties?

Before going to bring a suit against patent infringement to the court, we should think about one important question: are we currently licensing that patent to other parties? If we sue, and lose, we will lose even current licensing revenues. Therefore, a thorough risk assessment is much more necessary when we are currently licensing that patent to other parties. In other words, by putting patent in lawsuit, you risk invalidating it!

(iii) Public relation

Filing lawsuit is a good and cost effective way to get public relation, because you will get a lot of press coverage! This may save your pocket from spending lots of money on attracting the mass media's attention, especially when you are running a start-up company, which is craving for good public relations but short of PR budget.

Conclusion

In recent years, many countries in the world have started to protect computer software and Internet business method by patent. For the promotion of innovations and new technologies, we cannot deny that the existence of patent system is indeed necessary. However, as a result of a great quantity of the applications for Internet business method patents and numerous Internet business method patent infringement suits brought by Internet or e-commerce companies, we have to think about the following questions:

- Should business method (i) be patentable? This question is chiefly concerned with the "nonobviousness" element of patent. If something is obvious because of prior art, it is not patentable. However, it is not easy to find or search for prior art in the area of business method business methods before were not patented. widely published, or well known by people who never used the business method. On the other hand, many Internet business methods are, in fact, not totally new ideas. Some people simply move the popular business methods from physical world to cyberspace. Whether this kind of business methods is obvious or not has been a very controversial issue for a long time.
- (ii) Internet is a new and developing area. Many people stand for the opinion that government in the physical world should not interfere too much about the matters occurred in cyberspace. Internet business method patent enlarge and extend government powers to cyberspace, which is doubtful whether it is proper or not.
- (iii) We should also pay attention to the monopoly power accompanied by Internet business method patent,

- because it might be used against the development of e-commerce if the owner of a specific Internet business method patent improperly prohibits other companies from entering the market or set a extremely high licensing fee, which is likely to prevent other companies from doing the same or similar business on the Internet.
- (iv) Finally, there is an troublesome issue which is inevitable to all Internet legal subjects. That is the problem of international The jurisdictions. Internet borderless by its nature. But patent protection is dependant upon national sovereignty. If there is a case in which Internet users and Internet servers are situated in different countries or jurisdictions, and business method is patentable only in one or some of the countries or jurisdictions, while it is not patentable in other countries or jurisdictions, what should we do to solve this kind of conflicts?

When facing these questions, we should do more research on both the essence of patent systems and the development of ecommerce, in order to find a balance point, and create a better patent system for the new technological era.