Convergence of International Patent Laws: The Case of Business Method Patents

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INTRODUCTION

This article analyzes the recent developments and current international state regarding the legal recognition of business method patents. International patent law has become extremely important due to, among other things, the globalization of business. A simple business method can now have a profound affect internationally if it is applied and distributed through the Internet. There is a need for general agreement among international patent laws to ensure businesses with the certainty of uniform enforceability.

This article will briefly review the history of the patentability of business methods and concentrate on recent developments to determine the current state of international patent law in this area. Part II will review the first recognition of business method patents by the United States (U.S.) in 1998 and its immediate repercussions internationally. Part III will review subsequent developments in the patent laws of the world’s three major patent law regimes—U.S., European Union (EU), and Japan—to determine the current state of patentability of business methods. It will compare the state of patentability in the three major international patent offices and identify potential conflicts and problems. Part IV will provide some insight into the likely enforceability of business method patents internationally. The article concludes that: (1) that despite appearances of divergence in the expressed laws and policies as stated by the United States Patent and Trademark Office (USPTO), European Patent Office (EPO), and the Japanese Patent Offices (JPO), the patentability and enforcement of business methods is quite similar among the offices and (2) that despite a recent decision (Lundgren) otherwise, the trend has been in the greater convergence of the standards of patentability among the three patent law systems.

U.S. RECOGNITION OF BUSINESS METHODS PATENTS: 1998 TO THE PRESENT

In 1998, the Federal Circuit court shocked the patent law world by recognizing the patentability of business methods in the State Street Bank & Trust Co. v. Signature Financial Group(1) decision. The decision effectively stated that business models or methods are not inherently beyond the scope of patentability. Previously the courts had held "business methods" to be an exception to statutory patentability.(2) Therefore, up until the time of this decision, business methods were not considered to be patentable subject matter. In essence, the Court rejected one hundred years of case law by stating that American patent law had been misinterpreted on
this point. It reasoned that nothing in the Patent Act categorically precluded the patenting of business methods. As long as the business method satisfied the standard requirements of patent law—novelty, utility, and non-obviousness—they were entitled to patent law protection.

After the decision was announced, the rush was on to obtain business method patents. From 1998 to 2001 the number of patent applications filed under Class 705 (the class covering business method patents) increased by nearly 650% from 1,340 to 8,700.(3) The USPTO was unable to effectively process the number of business method patent applications. Due to a lack of expert examiners and adequate prior art databases, the USPTO was forced to grant many overly broad (bad) patents. The USPTO was severely criticized by the business and patent law communities. It responded in March of 2000 by enacting the "Business Method Patent Initiative: An Action Plan."(4)

The "Business Method Patent Initiative" set forth means by which the quality of business method patent application examinations would be improved. The USPTO first set out to enhance technical training of the examiners by hiring business practice specialists to serve as resources for examiners, establishing training exercises with industry associations and individual corporate sponsors, and publishing their training needs for offers to provide such training. The USPTO also expanded the current search activities performed by the examiners: "A mandatory search for all applications in Class 705 [was put in place to] to include a classified U. S. patent document search, and a text search of U.S. patent documents, foreign patent documents, and non-patent literature (NPL), with NPL searches to include required search areas mapped/correlated to U.S. classification system for Class 705, [in order to] provide a more fully developed prior art(5) record."(6) A second level of review was also added for Class 705 applications; this level of review ensures that the correct search measures were taken and to determine if the scope of the claim is too broad. Finally, the sampling size for quality review by the Office of Patent Quality Review was "substantially expanded, and a new in-process review of Office actions [was] introduced with an emphasis on the field of search of the prior art and patentability determinations under 102/103."(7) These actions proved to be effective in decreasing the number of issued patents. In 2000, the year the initiative was set forth, 899 patents were issued as compared to just 282 patents issued in 2004.(8)

In 2001, the patentability of business methods was narrowed in Ex parte Bowman.(9) In that case, a patent application was rejected because it did not fulfill a "technical arts" requirement. This additional requirement was not discussed in the State Street decision. One commentator noted that the Bowman case represented an attempt by the patent office to respond to severe criticism for issuing overbroad business method patents."(10) The other importance of the Bowman decision was that it served to narrow the divergence between, U.S., EU, and Japanese patent laws caused by the State Street decision. The need for the business method to advance the "technical arts" helped to harmonize U.S. patent practices with that of the EPO and JPO where the technical nature of an invention is given great importance. The next Part will review the patentability of business methods in the other two major patent law regimes—EU and Japan.
This Part will briefly analyze the patent laws of the EU and Japan in the area of business methods. It will conclude with a comparison of their major features with those of U.S. patent law.

**European Union**

The European Patent Convention (EPC) set the standards for patent regulation between contracting countries in Europe. Article 52 of the EPC is critical when examining the EPO's treatment of business method patents. It states that all inventions must be susceptible to industrial application, new, and involve an inventive step. More importantly, Article 52 excludes the following from the definition of "invention": discoveries, scientific theories, mathematical methods, schemes, rules and methods for performing mental acts, playing games or doing business, and programs for computers. Thus, the exclusion for "methods for . . . doing business" seems to preclude the patentability of business methods. However, in an EPO Board of Appeals decision in 1998 involving IBM the board found that: "(a) computer program product is not excluded from patentability under Article 52(2) and (3) [of the] EPC if, when it is run on a computer, it produces a further technical effect which goes beyond the 'normal' physical interactions between program (software) and computer (hardware)." While in 1998 the USPTO was opening the floodgates for business method patents, the EPO seemed to open the backdoor. Under the precedent of the EPO decision a business method could be patentable if it produces a "technical effect." Subsequently, the U.S. decision of *Ex parte Bowman*, noted above, brought some harmony between EU and U.S. law with its recognition of the importance of advancing of the "technical arts" in the granting of business method patents.

In recent years the EPO has sought to clear up the ambiguous language of Article 52 regarding computer-implemented inventions. In July 2005, the EU Directive on Computer Implemented Inventions was defeated after years of proposals and redrafts. According to the proposal, the intention of the directive was to "(harmonize) national patent laws with respect to the patentability of computer-implemented inventions and by making the conditions of patentability more transparent." The Directive proposed specific definitions for "computer-implemented invention" and "technical contribution." It is believed that if these definitions were implemented the patentability of computer software would become more stringent. With the directive's defeat however, the status quo remains in Europe. Patent claims, including those for business methods, are generally not excluded from the definition of an invention as long as they are of a technical character, relate to a technical field, concern a technical problem, or have technical features.

**Japan**

Japanese patent law regarding business-method patents is currently as ambiguous as that of the EU. The JPO's *Examination Guidelines for Industrially Applicable Inventions* states that if an invention claim utilizes "methods for doing business...the invention is not considered statutory because is does not utilize natural
laws.” (17) Despite the straightforward nature of this exclusion of business methods, it is further modified by language that states that inventions not utilizing natural laws are statutory, nonetheless, if “the invention on the whole utilizes natural law.” (18) The Guidelines then mandates the careful examination of “inventions relating to a method for performing business.” (19) In the end, like the “technical effect” element recognized by the EPO, business methods carried out by software-related inventions have been recognized by the JPO as falling under “a creation of technical ideas utilizing natural laws.” (20) However the question of the patentability of a computer-assisted business method remains unanswered. (21)

Divergence Remains: Ex parte Lundgren

The convergence of the world’s three major patent law along a “technical arts, effect, or ideas” requirement in order to allow the patentability of business methods was dealt a setback with the 2005 U.S. decision in Ex parte Lundgren. In Ex parte Lundgren, the U.S. Board of Patent Appeals once again allowed for the patentability of business method patent claims without the need for a technical component. The Board of Appeals ruled that: “(a) 'process' does not necessarily require a computer to be statutory subject matter and the performance of steps by a human does not necessarily mean that the subject matter is nonstatutory because it is possible to transform subject matter without a machine.” (22) Not only did the board debunk the existence of a “technological arts” requirement or test, they went further to say a “technological arts' test would be very difficult to apply since what constitutes 'technology' can always be debated.” (23) In sum, business methods are statutory and do not need the assistance of technology to ensure their patentability. Once again, there is a clear divergence between the United States and the EU-Japan patent law regimes in the area of business method patents.

Trade-Related Aspects of Intellectual Property Rights and the Potential Role of the WTO

If international organizations such as the World Trade Organization (WTO) recognize the trend towards full acceptance of business method patents, then the business method patent issue could be settled at the international organizational level instead of waiting for individual governments to harmonize their laws. As of now, Article 9.2 of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs) of the WTO states that, “protection shall extend to expressions and not to ideas, procedures, methods of operation or mathematical concepts as such.” (24) Therefore, a trade partner is not obligated to recognize a business method patent issued by the USPTO under current WTO guidelines.

Nonetheless, recognition of another country’s business method patents would conform to the spirit of Article 27.1 of TRIPs. It states that “patents shall be available for any inventions, whether products or processes, in all fields of technology, provided that they are new, involve an inventive step and are capable of industrial application.” (25) The position of the USPTO would be that many business methods satisfy the general requirements of novelty, inventiveness, and utility as outlined in Article 27.1. There has yet to be a dispute challenging whether or not business methods are excluded from protection by Article 9.2 or explicitly included as protected by Article 27.1. If such a ruling were made the ramifications would be quite substantial. Member countries to the WTO would be required to uphold the patents as long as they do not
threaten ordre public or morality, including the protection of human, animal or plant life or health or to avoid serious prejudice to the environment. (26) Member states may not make any exclusion "merely because the exploitation is prohibited by their law." (27)

CONCLUSION: THE HARMONIZATION OF INTERNATIONAL PATENT LAWS

The Ex parte Lundgren decision signifies a movement towards the full acceptance of the business method patent in the United States. As the USPTO strengthens its position that business methods patents are statutory, the rest of the world will surely take notice. The decision will bring us back to the time of the State Street decision; however, this time the USPTO is better prepared for the ramifications. If the USPTO’s efforts to improve patent application examinations prove to be effective in thwarting “bad patents,” the international patent offices will have to reconsider the merits of issuing business method patents.

Just as the international community responded by liberalizing patent laws to include a category of business methods related to “technical” aspects to satisfy statutory requirements, they will, at the minimum, have to broaden the scope of the “technical” requirement to include less technical business methods in order to better harmonize the world patent law systems. As of now the interpretation of “technical” by the EPO and JPO relies on the inclusion of software and/or machinery to transform inputs. If the scope were to be broadened to include any transformation, even those not involving the use of computers, then the laws of these patent systems would converge toward that of the USPTO.

The persistent actions of the USPTO signal that business method patents are here to stay in America, and history tells us that the EPO and JPO are not willing to sacrifice competitiveness in order to maintain a more restrictive stance on issues of patentability. Whether the changes come internally through changes within the different national patent law systems or instantaneously on an international level it is safe to say that major changes are likely to occur in the patent laws of Europe and Japan. These changes will lead to the inevitable convergence of the three major international patent law systems.

FOOTNOTES

5. Prior art searches assess the novelty (newness) and non-obviousness of a patent claim. Both novelty and non-obviousness are required for such a claim to be accepted.

6. Id. 5

7. Id. 5

8. Id. 4


10. MacLean, Pamela A., Mind Over Matter, In the Law, Pg. 113 Vol. 05 No. 12, Quote by Jeffrey Sullivan.

11. Article 52(2) and (3) (European Patent Convention) (emphasis added).

12. EPO Board of Appeals, 01 July 98, T 1173/97 - 3.5.1.


14. Id. 13 see article 2


18. Id. 18 1.1(4).

19. Id. 18 1.1 Notes.


23. Id. 23


25. Id. 25 see Annex 1C, Article 27.1
REFERENCES


