

WHY STOP NOW?

THE AVAILABILITY OF BUSINESS METHOD PATENTS IN CANADA

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In describing the patent system's role in the industrial revolution, Abraham Lincoln commented that "the patent system added the fuel of interest to the fire of genius".¹

Introduction

Indeed, the genius of invention was the catalyst for change during the rise of industrialism. Today, it is the information economy that is on the rise. While the genius of invention remains a catalyst for progress in the information economy, the shape of innovation has changed. The patent system ably protected inventors and promoted innovation in the industrial age, when the most important innovation involved physical, discrete technologies. However, in the information economy, a broader definition of innovation must be embraced, one that further values enhancement of process or method rather than enhancement of physical tools. Consequently, a debate has emerged as to the role of the patent system in protecting innovations of methods or processes.

¹ James Gleik, "Patently Absurd" *New York Times Magazine* (12 Mar 2000) online: New York Times
<<http://www.nytimes.com/library/magazine/home/20000312mag-patents.html>>.

This paper will analyze the availability of business method patents in Canada. Specifically, it will be submitted that while business method patents are already available as a matter of practice, they deserve a wider and more explicit reception into law. Initially, a brief explanation of patents and an attempt to define business method patents will be offered. American and Canadian jurisprudence will then be reviewed in order to assess the availability of business method patents. Finally, this article will discuss various competing arguments over the utility of business method patents, in order to support their efficacy.

2. A Foundation to Business Method Patents

An Introduction to Patents

Patents are the law's primary mechanism for encouraging and rewarding the development of new and better technology. Gleick describes the patent as "enforcing a Faustian bargain: inventors give up their secrets, publishing them for all to see and absorb, and in exchange, they get a 20-year government-sanctioned monopoly on their technology".²

Accordingly, the benefits of the patent system target two groups: the public and inventors. Patents serve the public by allowing later innovators to leverage the information disclosed in patents in order to create new and better inventions. Patents serve the inventor (once they become a patent holder) by granting them a 20-year exclusive right to use of their invention. This exclusive right to use allows patent holders to capitalize on their inventions; patent holders can use and sell the output of their technology, license their technology to others for a return, or use their patent as a negotiating tool.

There are several requirements for an invention to be patentable. First, the invention must be captured by the definition of invention in s. 2 of the *Patent Act*³: "invention' means any new and useful art, process, machine, manufacture or composition of matter, or any new and useful improvement in any art, process, machine, manufacture or composition of matter". This definition requires the invention to be classifiable under one of the proscribed taxonomies. Subsection 27(8)

² *Ibid.*

³ *Patent Act*, R.S.C. 1985, c. P-4, s. 2.

of the *Patent Act* expressly prevents patenting “any mere scientific principle or abstract theorem”, even if it may fit into one of the s. 2 taxonomies.⁴ The s. 2 definition also requires that the invention be useful. Vaver explains that usefulness simply requires the invention to work as described and produce something or have a technical result but is not dependent on other factors like commercial viability.⁵ Assuming the invention fulfills the requirements of the s. 2 definition, it must also meet an additional two requirements for patentability: novelty and non-obviousness. Novelty, or newness, is specifically required by s. 28.2 of the *Patent Act*.⁶ An invention will not be novel if it was known to the public more than a year before the patent application. Non-obviousness is mandated by s. 28.3 of the *Patent Act*.⁷ The test asks whether a notional person would come up with the invention “directly and without difficulty”.⁸ This notional person is “skilled in the art or science”⁹ of the invention and has been held to have no inventiveness or imagination.¹⁰

Business Method Patents

Business method patents (which have also been referred to as process patents) are not defined in any primary legal authority in Canada or the United States.¹¹ In fact, the leading judicial authority on the availability of business patents recommended eliminating the

⁴ *Ibid.* at s. 27(8).

⁵ David Vaver, *Intellectual Property Law: Copyright, Patents, Trademarks* (Toronto: Irwin Law, 1997).

⁶ *Patent Act*, *supra* note 3 at s. 28.2.

⁷ *Ibid.* at s. 28.3.

⁸ Vaver, *supra* note 5.

⁹ *Patent Act*, *supra* note 3 at s. 28.3.

¹⁰ *Beloit Canada Ltd. v. Valmet Oy*, [1986] F.C.J. No. 87 (Fed C.A.).

¹¹ Teresa Cheung and Ruth M. Corbin, “Is there a Method to the Madness? The Persisting Controversy of Patenting Business Methods” (2005), 19 I.P.J. 29, at para. 35.

taxonomy.¹² However, it is perhaps disingenuous to suggest there is no difference whatsoever in the context of patentability between two example inventions, one of which is a machine that produces a discrete physical output, versus another invention that offers a more efficient means of organizing and using mutual fund data. A definition is required in order to lend precision and provide context for the analysis in the paper.

Part of the difficulty in formulating a definition for business method patents is a product of the scope given to the phrase. “Business method” is a blanket term and can describe numerous patented inventions in a diverse array of fields including logistics, advertising, marketing and finance. Most commonly, business method patents seem to be associated with e-commerce and other computerized systems for doing business. Given that most modern innovation occurs in an electronic context over an appropriately broad range of fields, this is a logical association. It also is difficult to formulate a definition of business method that will describe all of what should be patentable without also describing things that should definitely not be patentable. Stephen J. Ferance offers a broad definition: “‘business method’ refers to any method in the field of economic endeavour”.¹³ This definition includes all electronic commerce methods and many professional skills and purely mental steps.¹⁴ While this definition is undoubtedly encompassing, more precision is necessary to identify the niche of business methods amongst the collective whole of patentable subject matter.

It has been suggested that there is an implicit understanding that a business method patent will describe a “system or method for how information is obtained, managed and used in the course of carrying on a business or similar enterprise”.¹⁵ The requirement for interaction

¹² *Infra*, note 19 at 1375.

¹³ Stephen J. Ferance, “Debunking Canada’s Business Method Exclusion from Patentability” (2001) 17 C.I.P.R. 493 at 495.

¹⁴ Purely mental steps and professional skills describe methods that have consistently (and correctly) been seen as not patentable. See below at 3.2.1 and 3.2.2.

¹⁵ Cheung, *supra* note 11 at para. 35.

with information clearly speaks to e-commerce and many other potential business methods. However, not every business method patent will necessarily involve an interaction with information.¹⁶

For the purposes of this paper, the term “business method” refers to a process in any economic endeavour that will achieve a certain result. Interaction with information will be a common and critical aspect of most business methods.

3. Judicial Treatment of Business Method Patents

American Jurisprudence

The landmark decision with respect to business method patents is that of the United States Court of Appeals (6th Circuit) in *State Street Bank & Trust v. Signature Financial Group* (“*State Street*”).¹⁷ In *State Street*, the plaintiff State Street Bank & Trust sought a declaration of invalidity for United States patent serial number 5,193,056 for a “Data Processing System for Hub and Spoke Financial Services Configuration” (the “Boes” patent).¹⁸ The Boes patent, assigned to the defendant Signature Financial Group by the inventor R. Todd Boes, facilitated administration of a “hub and spoke” mutual fund scheme. In the hub and spoke scheme, various mutual fund assets (being the spokes) are pooled as partners into an investment portfolio partnership (being the hub). The patent described a computerized system for constant collection and analysis of data related to the mutual funds, allowing for the efficient administration and records keeping of the mutual fund scheme.¹⁹

Initially, the Boes patent was invalidated by the District Court. The District Court made this ruling by application of two possible exceptions to patentability: the “business method exception” and the

¹⁶ See *e.g.*, US Patent No. 1,242,872 “Self Serving Store” held by Clarence Saunders (the founder of Piggly Wiggly®) describing the modern grocery store.

¹⁷ *State Street Bank & Trust v. Signature Financial Group*, 149 F.3d 1368, 47 U.S.P.Q.2d 1596 (Fed. Cir. 1998) [*State Street* cited to F.3d].

¹⁸ *Ibid.* at 1368.

¹⁹ *Ibid.* at 1369.

“mathematical algorithm exception”.²⁰ On appeal, Rich J. overturned the District Court’s decision. Writing for the court, Rich J. dealt with both exceptions and found neither to be applicable.

The perceived business method exclusion was found to be based on a “general, but no longer applicable legal principle”,²¹ had only been stated in *obiter dicta*, and had never been used by an American court to deem an invention unpatentable.²² Rich J. also said of the definition of patentable subject matter in 35 U.S.C. § 101²³ (the American equivalent to s. 2 of the *Canadian Patent Act*):²⁴

The plain and unambiguous meaning of § 101 is that any invention falling within one of the four stated categories of statutory subject matter may be patented, provided it meets the other requirements of patentability. ... The repetitive use of the expansive term “any” in § 101 show Congress’s intent not to place any restrictions on the subject matter for which a patent may be obtained beyond those specifically recited in § 101.²⁵

The Court then quoted from *Diamond v. Chakrabarty*,²⁶ deciding that “it is improper to read limitations into § 101 on the subject matter that may be patented where the legislative history indicates that Congress clearly did not intend such limitations”.²⁷ The Court thus eliminated from American law the notion that business methods were

²⁰ *Ibid.* at 1472.

²¹ *Ibid.* at 1375.

²² *Ibid.* at 1375.

²³ 35 U.S.C. § 101 states: “Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor [sic], subject to the conditions and requirements of this title”.

²⁴ *Infra* note 76.

²⁵ *State Street*, *supra* note 17 at 1373.

²⁶ *Diamond v. Chakrabarty*, 206 U.S.P.Q. 193, 447 U.S. 303 (USSC, 1980).

²⁷ *State Street*, *supra* note 17 at 1373.

inherently unpatentable subject matter, laying the “ill-conceived notion to rest”.²⁸

The mathematical algorithm exception was described as follows:

[C]ertain types of mathematical subject matter, standing alone, represent nothing more than abstract ideas until reduced to some type of practical application. ... Unpatentable mathematical algorithms are identifiable by showing that they are merely abstract ideas constituting disembodied concepts or truths that are not “useful.” From a practical standpoint, this means that to be patentable an algorithm must be applied in a “useful” way.²⁹

The Court used the decision of *In Re Alappat* (“*Alappat*”)³⁰ to determine what constitutes a useful way of applying an algorithm. Incorporating *Alappat*, *State Street* required the output of the algorithm to be “a useful, concrete, and tangible result”.³¹ The Court found that the Boes patent described a system that did produce such an output, with the numbers representing features of the portfolio system, including price, profit, percentage, cost and loss.³² Therefore, the mathematical algorithm exception was held inapplicable.

State Street also addressed the conceptualization of business method patents. Rich J. suggested that a machine-process dichotomy was not useful:

[I]t is of little relevance whether claim 1 is directed to a “machine” or a “process,” as long as it falls within at least one of the four enumerated categories of patentable subject matter, “machine” and “process” being such categories.³³

²⁸ *State Street*, *supra* note 17 at 1375.

²⁹ *State Street*, *supra* note 17 at 1373.

³⁰ *In Re Alappat*, 31 U.S.P.Q. 2d 1545 (Fed. Cir. 1994).

³¹ *State Street*, *supra* note 17 at 1373.

³² *State Street*, *supra* note 17 at 1375.

³³ *State Street*, *supra* note 17 at 1373.

Canadian Jurisprudence

Canadian courts have yet to clearly address the patentability of business methods in a manner comparable to *State Street*. In “Debunking Canada’s Business Method Exclusion from Patentability”, Ferance carefully reviewed and analyzed an ostensibly comprehensive survey of jurisprudence in arriving at his conclusion that business method patents were available under the Canadian patent regime. While some authors continue to perpetuate the notion that there exists an exclusion to patentability for business methods,³⁴ Ferance’s conclusions most accurately reflect the rules to be gleaned from the limited jurisprudence and the realities of the Canadian system.

The limited Canadian jurisprudence cited in relation to business method patents generally addresses four issues. The first of these is the patentability of software and computer-based inventions. Second is the professional skills exception to patentability. This issue speaks to inventions that bring about a computerized implementation of a job previously done by a skilled professional as well as inventions that are purely abstract schemes for doing business. The third issue centres on the definition of “art” as used in s. 2 of the *Patent Act*.³⁵ This issue is paramount, as most method patents will be captured as an invention by application of this definition.³⁶ Lastly, the fourth issue considers varying approaches to interpretation of the *Patent Act*.

The Patentability of Software and Computer-Related Implementations of Methods

The first clear judicial consideration of whether software and computer-based inventions were patentable was *Schlumberger Ltd. v.*

³⁴ Vaver, *supra* note 5. See also Cheung, *supra* note 11 at para. 28: “Dimock and Eisen ‘...business methods remain excluded from patentable subject matter’”. But see M.B. Eisen, “Arts and Crafts: The Patentability of Business Methods in Canada” (2001) 17 C.I.P.R. 279.

³⁵ *Patent Act*, *supra* note 3 at s. 2.

³⁶ Cheung, *supra* note 11 at para. 46.

Commissioner of Patents (“*Schlumberger*”).³⁷ In *Schlumberger*, the Federal Court of Appeal unanimously upheld the Patent Examiner and Patent Appeal Board’s rejection³⁸ of the application. Pratte J., writing for a unanimous Court, described the process used in geological exploration as follows:

The appellant’s application discloses a process whereby the measurements obtained in the boreholes are recorded on magnetic tapes, transmitted to a computer programmed according to the mathematical formulae set out in the specifications and converted by the computer³⁹ into useful information produced in human readable form.

Schlumberger is relevant for three reasons. First, the Court held that a computer-based implementation should not prejudice the patentability of an invention and computer programs could be an invention under s. 2 of the *Patent Act*.⁴⁰ Second, the Court clarified that when assessing the patentability of computer-based inventions, it is the substance of the process—regardless of the fact that it is implemented with a computer—that must be considered.⁴¹ The resultant rule was that if the underlying process is not patentable, the computer implementation of it could not transform it into patentable subject matter. Pratte J. stated that “if those calculations were not to be effected by computers but by men, the subject-matter of the application would clearly be mathematical formulae ... as such, in my view, it would not be patentable”.⁴² The application was accordingly denied on the basis of the exception now found in s. 27(8) of the *Patent Act*.

³⁷ *Schlumberger Ltd. v. Commissioner of Patents*, [1982] 1 F.C. 845, 56 C.P.R. (2d) 204 (F.C.A.) [*Schlumberger* cited to FC].

³⁸ *Schlumberger’s Application*, (1978), 106 CPOR 1 Aug. 1978 (P.A.B.).

³⁹ *Schlumberger*, *supra* note 37 at para. 2.

⁴⁰ *Schlumberger*, *supra* note 37 at para. 4.

⁴¹ *Schlumberger*, *supra* note 37 at para 5.

⁴² *Schlumberger*, *supra* note 37 at para 5.

The bar set in *Schlumberger* has been implicitly challenged by numerous subsequent decisions.⁴³ In *Re Application for Patent of Mobil Oil Corp.*,⁴⁴ a patent was issued for a method of filtering instrumentation reflection from seismological data using mathematical algorithms. The Patent Appeal Board held that the removal of reflections from the data made the process a useful art that did not relate solely to mathematical calculations.⁴⁵ The 1998 decision of *Re Motorola Inc. Patent Application No. 2,085,228*⁴⁶ saw the Patent Appeal Board retreat from the position of *Schlumberger*. The issued patent was for a device that evaluated exponentials—an example of a hardware implementation of a mathematical process. The claim was allowed on the basis that it was for a specific piece of hardware, and therefore the patent would only prevent others from using the hardware, but not the algorithm, as described.⁴⁷

The Professional Skills Exception

While the case of *Lawson v. Commissioner of Patents* (“*Lawson*”)⁴⁸ has been cited as supporting the exclusion of business methods from patentability,⁴⁹ it is more correctly characterized as Canadian law’s

⁴³ *Re application for Patent of Seiscom Delta Inc.*, (1985), 7 C.P.R. (3d) 506 (P.A.B.), where a patent was issued for an invention using a computer to record, process and display seismic data representing three dimensions on a two-dimensional surface; see also *Mobil Oil*, *infra* note 44 and *Motorola’s*, *infra* note 46.

⁴⁴ *Re Application for Patent of Mobil Oil Corp.*, (1988), 24 C.P.R. (3d) 571 (P.A.B.) [*Mobil Oil* cited to C.P.R.].

⁴⁵ *Ibid.* at 575.

⁴⁶ *Re Motorola Inc. Patent Application No. 2,085,228*, (1998), 86 C.P.R. (3d) 71 (P.A.B.) [*Motorola* cited to C.P.R.].

⁴⁷ *Ibid.* at para. 15.

⁴⁸ *Lawson v. Commission of Patents* (1970), 62 C.P.R. 101 (Ex. Ct.) [*Lawson* cited to C.P.R.].

⁴⁹ H.G. Fox, *The Canadian Law and Practice Relating to Letters Patent for Inventions*, 4th ed. (Toronto: Carswell, 1969) at 23.

reception of the exclusion of professional skills from patentability.⁵⁰ The claims described a method for subdivision of real estate lots in an efficient shape. The Exchequer Court rejected the claims as being a professional skill, stating that it represents “an art which belongs to the professional field and is not a manual art or skill.”⁵¹ Cattanach J. described the exception in the following passage:

[P]rofessional skills are not the subject-matter of a patent. If a surgeon were to devise a method of performing a certain type of operation he cannot obtain an exclusive property or privilege therein. Neither can a barrister who has devised a particular method of cross-examination or advocacy obtain a monopoly thereof so as to require imitators or followers of his methods to obtain a license from him.⁵²

Applying the above quote, Cattanach J. held the method of subdividing the land to be a professional skill of a solicitor, conveyancer and surveyor, and accordingly the application was rejected.

The professional skills exception was recently applied *Re Patent Application No. 564,175*.⁵³ The application being reviewed there was for a computerized financial account management system. The system optimized allocation of funds from a mortgage account into multiple investment accounts. Since the process was previously undertaken by individual financial accountants, the Court used the rule in *Schlumberger* and claimed to analyze whether the process itself was patentable without regard to its computerized implementation.⁵⁴ The Board applied *Lawson* and stated:

[T]he Applicant has substituted a computer which has been programmed in a specific manner to make decisions which were formerly made by a financial advisor. ... An operation which is not patentable when carried out by an individual

⁵⁰ *Cheung*, *supra* note 11 at para. 42; see also *Ferance*, *supra* note 13 at 511.

⁵¹ *Lawson*, *supra* note 48 at 111.

⁵² *Lawson*, *supra* note 48 at 110.

⁵³ *Re Patent Application No. 564,175* (1999), 6 C.P.R. (4th) 385 (P.A.B.) [*Re 175* cited to P.A.B.].

⁵⁴ *Ibid.* at 386.

cannot be made patentable merely by having it carried out by a computer.⁵⁵

Defining “Art”

In *Lawson*, the Exchequer Court construed “art” according to the definition in s. 2 of the *Patent Act* as including method patents, stating “that ‘art’ may include a method or process patent is well settled.”⁵⁶ Cattanach J. defined “art” as “an act or series of acts performed by some physical agent upon some physical object and producing in such object some change of either character or of condition”.⁵⁷ *Lawson* imposed a linkage to a material object and required a transformation on that object.

More recently, the Federal Court Trial Division addressed the definition of “art” in *Progressive Games, Inc. v. Commissioner of Patents (“Progressive”)*.⁵⁸ Denault J. stated:

The sole issue in this appeal is whether or not the Appellant's changes in the method of playing poker fall within the definition of the terms “art” or “process” as those terms are used in the definition of ‘invention’ at Section 2 of the Act.⁵⁹

In *Progressive*, the patent sought was for a method of playing a card game. Specifically, the method enabled a casino to play heads-up five-card stud poker against one or more players. The Federal Court rejected the patent, as it did not fully satisfy Denault J.’s definition of “art”. While Ferance correctly notes that *Progressive* “did not involve a ‘business method,’ but rather, involved a method of playing a

⁵⁵ *Ibid.* at 386.

⁵⁶ *Lawson*, *supra* note 48 at 103.

⁵⁷ *Lawson*, *supra* note 48 at 103.

⁵⁸ *Progressive Games, Inc. v. Commissioner of Patents* (1999), 3 C.P.R. (4th) 517 (F.C.T.D.), *aff’d* (2000) 265 N.R. 392, 192 F.T.R. 160 (F.C.A.) [*Progressive* cited to C.P.R.].

⁵⁹ *Ibid.* at 521.

game”,⁶⁰ the case is still significant for its somewhat problematic construction of “art”.

Denault J. began by affirming that “art” includes process.⁶¹ The Court then used the Supreme Court of Canada’s decisions in *Shell Oil v. Commissioner of Patents*⁶² in order to construct a three-part definition of “art”. Denault J. stated:

Accordingly, the definition of the term "art" as provided by the Supreme Court includes a process that:

- (i) is not a disembodied idea but has a method of practical application;
- (ii) is a new and innovative method of applying skill or knowledge; and
- (iii) has a result or effect that is commercially useful.

The poker game met both the first and third criteria of the *Progressive* definition of “art”.⁶³ The application was rejected on the basis of the second, as the Court did not see the poker game as a substantial change or innovation.⁶⁴

Interpreting the Patent Act

The Supreme Court of Canada grappled with the patentability of higher life forms in *Harvard College v. Canada (Commissioner of Patents)* (“*Harvard College*”).⁶⁵ Though the inventive subject matter is not related to business methods, the decision is relevant in two ways. First, the decision is a recent and compelling authority on the interpretive approach to deciding what is captured by “invention”. Second, the decision (as well as its treatment in the Federal Court of

⁶⁰ Ferance, *supra* note 13 at 525.

⁶¹ *Progressive*, *supra* note 58 at para. 13.

⁶² *Shell Oil v. Commissioner of Patents*, [1982] 2 S.C.R. 536, 67 C.P.R. (2d) 1.

⁶³ *Progressive*, *supra* note 58 at para. 18.

⁶⁴ *Progressive*, *supra* note 58 at para. 20.

⁶⁵ *Harvard College v. Canada (Commissioner of Patents)*, 2002 SCC 76, [2002] 4 S.C.R. 45, [*Harvard College* cited to S.C.R.].

Appeal) provides a basis for questioning the sources of the perceived business method exception in Canadian law.

The majority and minority decisions in *Harvard College* make it clear that “invention”, for the purposes of s. 2 of the *Patent Act*, is an expanding concept. Bastarache J., writing for the majority, stated: “Because the Act was designed in part to promote innovation, it is only reasonable to expect the definition of ‘invention’ to be broad enough to encompass unforeseen and unanticipated technology.”⁶⁶

This statement certainly supports the notion that the *Patent Act* should continue to support innovation in the context of new technologies (such as biotechnology and e-commerce). However, the majority did not accept that invention had as expansive a definition as that suggested in *State Street*.⁶⁷ The enumerated categories⁶⁸ in s. 2 were held to be exhaustive. Additionally, it was held that if an application was captured by one of the enumerated categories in “invention”, policy grounds and exclusions not provided for by the *Patent Act* could not operate to prevent the granting of patent.⁶⁹ Assuming many business methods can be captured as an “art”,⁷⁰ within the textual definition of “invention”, this ruling necessitates their patentability.⁷¹

Ferance notes that the first instance in Canadian legal literature of the notion that business methods were excluded from patentable subject matter was in a 1926 text on patent law by Featherstonhaugh and Fox.⁷² The statement was supported by *obiter dicta* from the English case of *Cooper's Application*⁷³ that suggested “a mere scheme or plan”

⁶⁶ *Ibid.* at para. 158.

⁶⁷ *Ibid.* at para. 158.

⁶⁸ *Patent Act*, *supra* note 3.

⁶⁹ *Harvard College*, *supra* note 65 at paras. 144 and 152.

⁷⁰ See above at 3.2.3.

⁷¹ This of course presumes that the other requirements for patentability, as described above in 2.1, are met.

⁷² Ferance, *supra* note 13 at 515.

⁷³ *Cooper's Application* (1902), 19 R.P.C. 53.

such as “a plan for the efficient conduct of business” was not patentable.⁷⁴ In *Harvard College* at the Federal Court of Appeal, Rothstein J.A. cast doubt on the persuasiveness of English law, quoting Pigeon J. in *Tennessee Eastman v. Canada*⁷⁵: “I doubt whether decisions dealing with the patentability of inventions under the U.K. Act are entitled to the weight which authors such as Fox ... seem to think they should have”.⁷⁶ Rothstein J.A. added: “it is doubtful that UK decisions are helpful for the specific purpose of construing the definition of ‘invention’ in the Canadian Patent Act”.⁷⁷ Given that the Canadian definition of “invention” closely modelled the American definition,⁷⁸ American jurisprudence provided “useful guidance”.⁷⁹

At the Supreme Court level, the majority decision did not challenge the criticisms of the persuasiveness of U.K. jurisprudence levied by Rothstein J.A. The dissenting opinion, written by Binnie J., accepted the views of Rothstein J.A. and also considered American jurisprudence persuasive.⁸⁰ However, *Harvard College* did not fully embrace the American construction of invention. Neither the majority nor the minority opinions accepted the proposition that invention includes “anything under the sun made by man”.⁸¹ This distinction is not apposite; such an expansive interpretation is not required for business method to be construed as an invention.

Harvard College cannot be considered without also addressing the more recent decision by the Supreme Court of Canada in *Monsanto Canada*

⁷⁴ *Ibid.* at 54.

⁷⁵ *Tennessee Eastman v. Canada* (1972), [1974] S.C.R. 111, 8 C.P.R. (2d) 202.

⁷⁶ *Harvard College v. Canada (Commissioner of Patents)* [2000] 4 F.C. 528, 7 C.P.R. (4th) 1 (F.C.A.) at para. 23, rev'd [2002] 4 S.C.R. 45.

⁷⁷ *Ibid.* at para. 57.

⁷⁸ *Ibid.* at para. 59.

⁷⁹ *Ibid.* at para. 62.

⁸⁰ *Harvard College*, *supra* note 65 at paras. 36, 38-40.

⁸¹ *Diamond v. Chakrabarty*, *supra* note 26 at 309.

Inc. v. Schmeiser (“*Monsanto*”).⁸² The former found that higher life forms, including the oncomouse (a genetically modified mouse) in issue, were unpatentable subject matter. The latter found genes and modified cells making up a plant to be patentable. While the two decisions may seem difficult to reconcile, *Monsanto* should not necessarily be taken to overrule *Harvard College*; the majority opinion in *Monsanto* addresses how the two decisions can coexist.⁸³ The difference in results and the changing makeup of the Court may suggest that the Court will adopt a more expansive interpretation of patentable subject matter than the majority decision in *Harvard College*.⁸⁴

Monsanto does not provide further ground for challenging the perceived business method patent exclusion. In *obiter dictae*, Arbour J., writing in dissent, listed “business systems and methods and professional skills” as a judicial exclusion from patentability.⁸⁵ However, the support for this proposition was erroneous—it was cited to *State Street*. Further, judicial exceptions from patentability (without textual basis in the *Patent Act*) are themselves doubtful given the rule against such exceptions endorsed in both the majority and minority decision in *Harvard College*.⁸⁶ Accordingly, this statement is not persuasive.

In sum, *Harvard College* provides additional bases for challenging the existence of a business method exception to patentability. *Harvard College* held that the only relevant limitations to patentability are those with a textual basis in the *Patent Act*.⁸⁷ The judgements of Rothstein J.A. and Binnie J. cast further doubt on the exception insofar as its source is UK law of questionable relevance. The combination of these

⁸² *Monsanto Canada Inc. v. Schmeiser* 2004 SCR 32, [2004] 1 S.C.R. 902.

⁸³ *Ibid.* at paras. 21-24.

⁸⁴ The impending appointment of Rothstein J.A. to the Supreme Court of Canada further supports this proposition.

⁸⁵ *Monsanto*, *supra* note 82 at para. 133.

⁸⁶ *Supra* note 69; and see *Harvard College*, *supra* note 65 at paras. 40, 144 and 152.

⁸⁷ *Ibid.*

holdings undermines the existence of an exception to patentability existing independent of textual basis or Canadian precedent. Further, the argument for increased persuasiveness of American jurisprudence bolsters an interpretation of invention that is inclusive of business methods. Given *Monsanto* and the changing makeup of the Supreme Court of Canada, the potential for the success of this argument is substantial.

Conclusions as to Patentability in the Canadian System

To summarize, the substance of the business method will be assessed in determining its patentability, not its form (*Schlumberger*). The business method must be a new process in order to satisfy the novelty requirement. The process must produce a useful output in order to meet the utility requirement (and satisfy *Progressive*), and the process may need to effect a transformation in a material object in order to be an art under s. 2 of the *Patent Act* (*Lawson*). The process must not be a bare computer implementation of a professional skill (*Lawson, Progressive*). Within this framework, there is a substantial theoretical expanse in which business methods will be patentable subject matter.

The software context provides current examples. In this context, many e-commerce innovations will perform useful functions and produce a tangible output and are wholly distinguishable from their implementation without a computer.⁸⁸ The professional skills exception may apply and exclude some inventions that are inherently software versions of a professional. Software or methods accomplishing sufficiently complicated tasks unachievable by a professional will not be excluded.⁸⁹ Many inventions will easily satisfy the definition of art articulated in *Lawson* and *Progressive*. It is easy to conceive of business methods, likely implemented primarily through software, that both have methods of practical application, will be new

⁸⁸ See, e.g., Canadian Patent Number 2,426,168, Method and Apparatus for Evaluating Fraud Risk in An Electronic Commerce Transaction.

⁸⁹ See, e.g., Canadian Patent Number 2,241,767 System for Transforming and Exchanging Data between Distributed Heterogeneous Computer Systems.

and innovate applications of knowledge, and will be commercially useful.⁹⁰

4. Policy Analysis of Business Method Patents

Since *State Street* was issued, a significant portion of literature discussing business method patents has been decidedly critical.⁹¹ These arguments are divisible into two broad groups: intrinsic criticisms and extrinsic criticisms. The intrinsic criticisms argue that business method patents tend to be inherently deficient in some respect, most commonly saying they lack novelty or utility, or are overly broad in scope. The extrinsic criticisms find fault with business method patents on the basis of utility and policy grounds. The common extrinsic criticisms hold that business method patents are harmful to innovation and competition, and are not well suited to assessment. The following review will canvass these arguments and provide a response to each. Additionally, further reasons will be provided in order to support the final conclusion that business methods should be patentable in Canada.

Intrinsic Criticisms

Lack of novelty is a common ground for criticism. Gleick quotes Professor Lessig as saying: “We’re talking about people taking ways of doing business and, because they put it into software, they say, “This is now mine”.”⁹² An example of this is US Patent Number 5,491,779,

⁹⁰ See *e.g.*, Canadian Patent Numbers 2,367,320 Workflow Management System; 2,404,814 Apparatus, Systems, and Methods for Online, Multi-parcel, Multi-carrier, Multi-Service Parcel Returns Shipping Management.

⁹¹ See *e.g.*, Gleick, *supra* note 1; Leo J. Raskind, “The State Street Bank Decision: The Bad Business of Unlimited Patent Protection for Methods of Doing Business” 10 *Fordham Intell. Prop. Media & Ent. L.J.* 61; Keith W. Perret, “State Street Bank: Patenting Business Methods” 15 *B.F.L.R.* 335; Matt Richtel, “Are Patents Good or Bad for Business Online?” *New York Times Cyberlaw Journal* (28 Aug 1998), online: *New York Times* <<http://www.nytimes.com/library/tech/98/08/cyber/cyberlaw/28law.html>>.

⁹² Gleick, *supra* note 1.

which is a patent for the pie chart as used on a computer.⁹³ While the pie chart's invention is credited to Florence Nightingale over 100 years ago, this patent was granted Richard D. Bezjian in 1995. A more common example is the infamous US Patent Number 5,794,207,⁹⁴ typically known as the Priceline™ reverse auction patent. Reverse auctions were used well before the patent application was filed in 1996.

Such cases provide at least anecdotal evidence that some business method patents lack novelty. Yet, it is not contended that business method patents should not be subjected to the same standards of novelty as any other patent. If some applications are being granted for less-than-novel innovations, the fault exists in the patent examination process, and no doubt clearer legal rules pertaining to business method patents will be of service to the issue. Additionally, to the extent that the argument is generally built on anecdotal evidence, it certainly cannot be used to support the exclusion of business method patents that are highly novel. This line of reasoning applies with equal force to criticisms rooted in utility deficiencies.

Business method patent claims have also been faulted as being excessively broad in scope. Richtel cites CyberGold's United States Patent Number 5,794,210⁹⁵ as an example.⁹⁶ However, Swinson notes that there has been a common failure by the media and corporations in differentiating between the perceived scope and the actual legal scope of many contentious patents.⁹⁷ As well, if claims are being allowed that are excessively broad, this logically serves as a basis of

⁹³ US Patent Number 5,491,779, Three Dimensional Presentation of Multiple Data Sets in Unitary Format Pie Charts.

⁹⁴ US Patent Number 5,794,207, Method and Apparatus for a Cryptographically Assisted Commercial Network System Designed to Facilitate Buyer-Driver Conditional Purchase Offers.

⁹⁵ United State Patent Number 5,794,210 Attention Brokerage.

⁹⁶ See *e.g.*, Richtel, *supra* note 80, as the US Patent Number 5,794,210 was suggested to give it the sole right to pay consumers online incentives.

⁹⁷ John Swinson, "Do Internet Process Patents Threaten E-Commerce?" *Australian Legal Information Institute* (06 June 2004).

criticism for the examination and approval process, but not necessarily efficacy of business method patents.

Extrinsic Criticisms

Shortcomings in the patent examination process have also been used to support exclusion. Many, especially in the software industry,⁹⁸ have argued that the examination process is ill suited to assess applications properly. Two empirical studies have been conducted on the quality of business method patents.⁹⁹ The studies assessed the patents in terms of novelty, obviousness and references to prior art. Both found that business method patents averaged a higher rating than their traditionally accepted counterparts, furthering the notion that perceived issues with novelty and quality may be less a specific indictment of business method patents than suggested. These studies also cast doubt on the arguments against patentability based on perceived issues with novelty.

Ultimately, the most provoking of criticisms are those that question the general utility of patents in the information age. Many commentators have seen business method patents failing a cost-benefit analysis where their predecessors had succeeded. Business method patents are suggested to be without economic efficacy, being harmful to innovation¹⁰⁰ and competition.¹⁰¹ While neither of these criticisms is wholly without merit (and both are likely broader criticisms of the patent system in general), it must be remembered that the patent system is premised on trade-offs. Additional resources are required by innovators to ensure their technologies do not infringe patented ones, but innovators are provided with a legal mechanism

⁹⁸ Gleick, *supra* note 1; see also Richard Stallman, “The GNU Philosophy” GNU (2004), online: GNU Free Software Foundation <<http://www.gnu.org/philosophy/>>.

⁹⁹ John Allison and Emerson Tiller, “The Business Method Patent Myth” 18 Berk Tech. L.J. 987 at 987; see also Starling David Hunter III, “Have Business Method Patents Gotten A Bum Rap?” MIT Sloan School of Management Paper 182 (2004).

¹⁰⁰ Gleick, *supra* note 1; see also Raskind, *supra* note 91.

¹⁰¹ Raskind, *supra* note 80; See also Stallman, *supra* note 98; Gleick, *supra* note 1.

for capitalizing on their efforts. In that regard, the system both prevents and fosters innovation. Legally granted monopolies on technology inherently affect competition. However, competitors are challenged to leverage the disclosure in other patents in order to create new and better technologies.¹⁰² Patents are viewed as fostering competition.¹⁰³ In the case of small-to-medium-sized enterprises, patent protection can be a critical component in gaining market share from larger, entrenched competitors.

Further Support for Patentability

While the traditional economic justifications for the patent system should still apply in today's economic context, more arguments are available in support of patent protection for business methods.¹⁰⁴ The final one offered here is for the harmonization of law. Cheung states that "with the current ease of mobility of capital and technology, there is impetus for Canada to harmonize the application of its patent legislation with that of other countries".¹⁰⁵ Binnie J. supported this notion in *Harvard College*.¹⁰⁶ The availability of business method patents is desirable from a legal perspective—interpretive harmony and legal certainty should be the ideal—but it will also allow Canadian innovators to compete in an analogous market with comparable rules, and with American competition.

¹⁰² As an example, in response to the limitation of use of the GIF and JPEG images imposed by software patents, the open source community responded by developing the more efficient PNG image format.

¹⁰³ Canadian Intellectual Property Office, "A Guide to Patents" (Ottawa: Industry Canada, 2004), online: Industry Canada <http://strategis.ic.gc.ca/sc_mrksv/cipo/patents/patguide-e.pdf> at 1; see also Competition Bureau, "Intellectual Property Enforcement Guidelines" (Ottawa: Competition Bureau, 2000), online: Competition Bureau <<http://strategis.ic.gc.ca/pics/ct/ipege.pdf>> at 1, 5.

¹⁰⁴ Statistics Canada, "Determinants of Innovative Activity: The Role of Intellectual Property Rights" (Ottawa: Supply and Services Canada, 2000); see also Cheung, *supra* note 13; Swinson, *supra* note 97.

¹⁰⁵ Cheung, *supra* note 11.

¹⁰⁶ *Harvard College*, *supra* note 65 at 11.



Conclusion

Business method patents are not explicitly recognized as patentable in the Canadian legal system. However, practice and the existing legal framework dictate that many business method patents have been and will continue to be approved. This unclear position results in a lack of certainty that is not beneficial to either party—those in support or those opposed to their patentability. The law, especially to the extent that it is an economic tool, must provide certainty. Canadian patent law currently allows for the possibility of patentability. While criticisms specifically targeting business method patents are debatable, the patent system continues to provide many benefits. Consequently, it would be inappropriate to further the artificial and potentially baseless exclusion of business methods from patentability. Therefore, it is submitted that the need for certainty and the benefits of patentability necessitate a full reception of business method patents in Canadian law.