

International

Eligibility of software and business methods in the United States, Europe and Asia

By **Stephen Perry** and **Arya Ghadimi**,
Perry+Currier Inc

Software and business methods are a crucial component of the world's innovation-driven economy. However, patent protection for these intellectual assets has proved controversial and remains subject to considerable variations between jurisdictions. This chapter examines the patentability of software and business method patents in the United States, Canada, the European Patent Office (EPO) and several Asian jurisdictions. Our findings are summarised in the table below and are discussed in more detail in the jurisdiction-specific sections that follow. Many of these jurisdictions exclude software and business methods as such from patent eligibility, but under certain circumstances discussed below, some patent protection remains available for these inventions.

In addition, laws and policies dictating patent eligibility of software and business methods are quickly evolving in several jurisdictions. A recent highly contested decision from the US Court of Appeals for the Federal Circuit has cast doubt on the patentability of computer-implemented business methods and created uncertainty among practitioners. In Canada, on the other hand, there are early signs that the patent office may be adopting a more liberal approach towards the eligibility of business methods. Finally, in India, new draft examination guidelines aim to limit patent eligibility for software inventions.

United States

Claims that encompass all practical applications of an abstract idea are not eligible for patent protection.

Claims to computer-implemented processes that include a general-purpose computer programmed to perform the process steps may be eligible for patentability. However, merely adding a 'computer-aided' limitation to a claim covering an abstract concept is not enough to make a claim eligible if it remains silent as to how the computer aids the method, the extent to which it aids the method or the significance of a computer to the method's performance. Use of a machine or apparatus that contributes only nominally or insignificantly to the execution of the claimed method (eg, in a data-gathering step or in a field-of-use limitation) would militate against patent eligibility.

Where a process claim does not include a machine, claim limitations relating to transformation of an article to a different state or thing are suggestive, but not determinative, of patent eligibility. An article can be a physical object or substance, or even electronic data that represents a physical object or substance.

A claim to a non-transitory, tangible computer-readable storage medium *per se* that possesses structural limitations under the broadest reasonable interpretation standard to qualify as a manufacture would be patent-eligible subject matter.

In addition, business methods are not categorically excluded from patentable subject matter. However, the eligibility of computer-implemented business methods has been called into question by the 2013 *en banc* decision of the Court of Appeals for the Federal Circuit in *CLS Bank v Alice Corp*. At issue was the eligibility of a method, computer system and computer-readable media claims directed to an escrow scheme for reducing business transaction risks. The

Jurisdiction	Explicit exclusion(s) from patent eligibility	Notes
United States	Any claim that would essentially encompass substantially all practical uses of an abstract idea.	Methods with or without a device and a computer-readable memory can be patent eligible. Business methods may be eligible if they do not fall under the abstract idea exclusion. <i>CLS Bank</i> has cast doubt on the patentability of computer-implemented business methods. The US Patent and Trademark Office has initiated the Software Partnership public consultation, which is designed to enhance the quality of software-related patents.
Canada	Software as such.	Claims for machine/devices with software running on a general-purpose computer may be patentable. Claims for computer-readable memory storing software may be patentable. A business method may constitute an element of a patentable claim. Two recent decisions of the Canadian Intellectual Property Office's Patent Appeal Board have taken an unusually liberal approach to subject-matter eligibility and have allowed claims to computer-implemented business methods.
EPO	Software as such. Business methods as such.	'Technical character' and 'further technical effect' requirements for patentability. Mere inclusion of a computer or computer-readable medium in a claim will lend sufficient technical character.
India	Software <i>per se</i> . Business methods (broad exclusion).	Software stored on computer-readable media is not patentable. New draft examination guidelines aim to exclude claims to software operating on general-purpose computers.
Japan	Business methods as such.	'Technical' and 'law of nature' requirements for patentability. Software working cooperatively with hardware will meet the technical requirement.
China	Software <i>per se</i> . Business methods <i>per se</i> .	'Technical solution' requirement for patentability. Software stored on computer-readable media is also not patentable. If there are technical features, claims as a whole may be patentable.
Korea	Software as such. Business methods as such.	'Technical' and 'law of nature' requirements for patentability. Software/methods may be patentable in conjunction with hardware or where the method gives useful, concrete and tangible results.

court was divided and the lack of a strong majority has left practitioners with no clear direction. A majority of the judges held, but split on the reasoning, that the methods and the computer-readable media claims were not eligible. Moreover, the lower court's ruling that the system claims were also ineligible was affirmed because the *en banc* court was equally

divided on the issue.

In response to *CLS Bank*, the US Patent and Trademark Office (USPTO) issued a memo to its examiners indicating that there will be no change in the examination procedure for evaluating subject-matter eligibility in view of the decision. The memo further indicated that the USPTO is continuing to study *CLS Bank* and

will consider whether further detailed guidance is needed on patent subject-matter eligibility.

In addition, software and business method patents have received considerable media attention in the United States, particularly in the context of what is perceived to be an increasing level of enforcement by patent assertion entities. In 2013 the USPTO announced a Software Partnership with the software community, in order to share ideas on enhancing the quality of software-related patents. Listening sessions took place early in 2013, with a further public meeting scheduled for the autumn. It remains to be seen whether any meaningful changes emerge from these consultations.

Canada

Software as such is considered to be an abstract scheme for operating a computer and is not patentable. However, where a computer is found to be an essential element of a construed claim, the claimed subject matter will generally be statutory. When software is included in a claim directed to a machine or device, a general-purpose computer may be sufficient to meet subject-matter requirements. Claims to computer-readable media storing software may also constitute patentable subject matter. In such cases the wording of the claim must be directed at the product/media limited by the software stored thereon, and not *vice versa*.

A business method may constitute an element of a patentable claim. This eligibility was established by the Federal Court of Appeal in *Re Amazon.com Inc* (2011 FCA 328), which reversed the Canadian Intellectual Property Office's (CIPO) earlier stance that business methods were unpatentable.

In 2013 CIPO's Patent Appeal Board has thus far released six decisions addressing subject-matter eligibility of computer-implemented business methods (*Re Patent Application No 2306540* (CD1334), *Re Patent Application No 2,344,781* (CD1336), *Re Patent Application No. 2,285,834* (CD 1337), *Re Patent Application No 2,304,195* (CD 1338), *Re Patent Application No 2,144,068* (CD 1339) and *Re Patent Application 2,222,229* (CD 1341). In four of the decisions the board ruled that the computer-implemented inventions were related to eligible subject matter on the basis

that a claim must "define a solution to a computer 'problem', or overcome [a] technical problem in the operation of the computer system" in order to qualify as statutory subject matter.

EPO

A patentable invention within the meaning of the European Patent Convention must have a technical character, in that it must relate to a technical field, be concerned with a technical problem and have technical features defined in the claims.

Software as such is not patentable subject matter. However, if the claimed subject matter has a technical character, it is not excluded from patentability. Normal physical effects arising from executing software using hardware (eg, electrical currents) are not in themselves sufficient to lend a computer program technical character. However, if a program running on a computer is capable of bringing about a further technical effect beyond the normal physical effects, it is not excluded from patentability. Further, including a computer, a computer network or a readable medium carrying a program in a claim lends technical character to the claimed subject matter.

Business methods as such are not patentable subject matter, even if the claimed method implies the possibility of making use of unspecified technical means or has practical utility. However, if a business method claim specifies computers, computer networks or other conventional programmable apparatus for carrying out at least some steps of a scheme, it may comprise a mix of technical and non-technical features, where the technical features are directed to a computer or a comparable programmed device. In these cases, the claim will be examined in a similar manner as a software/computer-implemented invention.

India

Computer programs *per se* are not patentable. Claims directed to computer program products are considered computer programs *per se* if they are stored in a computer-readable medium and as such are not eligible. Even if the claims contain subject matter that is not a computer program, the Patent Office will assess whether this subject matter is

sufficiently disclosed in the specification and forms an essential part of the invention.

Business methods claimed in any form are not patentable subject matter, regardless of whether they include technical features, such as the Internet, networks, satellites or telecommunications. This exclusion applies to all business methods and, therefore, if in substance the claims relate to business methods, even though elements of technology are included, they are not considered to be patentable subject matter.

In 2013 the Indian Patent Office released for public comment draft guidelines on the examination of patent applications related to computer-implemented inventions. These guidelines appear to limit the patentability of claims encompassing both software and hardware.

They state that if a claim of an invention is oriented towards a novel, inventive and industrially applicable computer or related device along with the program for defining its functionality, then it may be considered to be patentable. However, a computer program loaded on a general-purpose, known computer or related device is not patentable. The examiners are advised to consider carefully how integrated the novel hardware is with the computer program. Further, it is important to ascertain whether the machine is program specific or the program is machine specific.

Japan

To be patentable, an invention must be a highly advanced creation of technical ideas utilising the laws of nature.

Where information processing by software is tied to hardware (eg, a central processing unit or a computer-readable storage means) in the claimed invention in such a way that the software and the hardware work cooperatively to manipulate information, the claimed invention may constitute patentable subject matter.

Methods for doing business as such are not considered to be statutory because they do not utilise a law of nature. Claiming a device or a system will not necessarily overcome this problem, as the claims are judged as a whole for compliance with the law of nature requirement. However, an invention may qualify as statutory where the invention is

claimed in the form of computer software-related inventions, such as software used in doing business.

China

An invention relating to computer programs is patentable subject matter only if it constitutes a technical solution. If the solution of an invention relating to computer programs involves the execution of computer programs in order to solve technical problems and reflects technical means in conformity with the laws of nature to control and process external or internal objects, then it qualifies as a technical solution and is eligible for patentability.

Computer programs *per se* are not patentable. Further, computer programs recorded on computer-readable media and business methods also fall into the scope of patentable-ineligible rules and methods for mental activities. However, if a claim includes not only rules and methods for mental activities, but also technical features, then the claim as a whole may be patentable.

Korea

A patentable invention must be a highly advanced creation of technical ideas utilising laws of nature.

A computer program as such is not considered patentable subject matter. However, where a claimed invention involves technical devices or a method that gives useful, concrete and tangible results by increasing or controlling the performance of certain technical tools with data, and those technical devices or technical methods are universal, repetitive and objective, the invention may be patentable.

If a claimed invention uses any laws other than a law of nature (eg, economic laws or mathematical methods) or mental activities (eg, a method for doing business as such, a financial insurance scheme as such or the Tax Code as such), the claimed invention is not considered to be statutory.

However, in the case of an invention where data processing with a computer program is specifically executed using hardware — such as a data-processing unit (machine) operating in association with the computer program, its operating method and a computer-readable medium carrying the

computer program – the invention may be viewed as a statutory invention.

Conclusion

The patentability of software and business methods varies considerably among jurisdictions. In addition, relevant laws and policies remain in flux, and changes affecting software and business methods may be on the horizon. For businesses that innovate in the fields of software and business methods and rely on patents to protect such intellectual assets, it is highly advisable to seek jurisdiction-specific professional advice in order to keep abreast of patent laws and policies in this rapidly changing landscape. *iam*

Perry+Currier Inc

Patent and Trademark Agents, 1300 Yonge Street
Suite 500, Toronto M4T 1X3, Canada

Tel +1 416 920 8170

Fax +1 416 920 1350

Web www.pckip.com



Stephen Perry
Partner
perry@pckip.com

Stephen Perry is viewed as one of Canada's leading patent agents. He is co-author (with Andrew Currier) of *Canadian Patent Law* (Butterworth's, 2012), the first text on the subject by patent prosecutors in over 30 years. Mr Perry started in the field of intellectual property in 1983 and qualified as a patent agent in 1985. His practice focuses on developing and managing international IP portfolios for Canadian technology companies in the fields of telecommunications, electronics, software, display technology, medical imaging and medical devices. Mr Perry's client's receive overall strategic advice on the protection of registered and unregistered intellectual property.



Arya Ghadimi
Patent and trademark lawyer
ghadimi@pckip.com

Arya Ghadimi is a patent and trademark lawyer at Currier+Kao LLP. His practice involves procuring IP rights, providing strategic IP advice and supporting enforcement proceedings. Mr Ghadimi is a regular contributor to the *PCK IP Reporter*, an online journal which provides timely updates on developments in Canadian patent law. He completed graduate studies in nano-chemistry and materials science before commencing his legal career.