Software patents and patenting computer related inventions in Canada

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Can a "computer program" be patented? Each time this question came up, it would generate sufficient debates to keep it alive, while in fact, the issue of patenting a "computer program" has long been settled in most countries. As many high tech companies already know, patents that protect inventions implemented using computer software have been routinely granted around the world, including in Canada.

It is generally the case that a computer program per se cannot be patented. This is so in Canada, in the United States, in Europe, in China,

and in Japan, among others. As it is recently reported, New Zealand will soon join the list of countries that exclude computer programs from patentability.[1] Often, what is at issue is to determine whether a computer-implemented or computer-related invention is merely a "computer program" and therefore should be excluded from patenting. This is often a much more difficult question to answer. Careful consideration is required both at the planning stage (whether to apply, what to apply for, when to apply and how to apply) and the application stage (how to address the differences in patentability

requirements in different countries and responding to the examiner's reports issued from patent offices in different countries) in order to obtain patent protection for computer software related technologies.

As noted, in Canada, as in many other countries, computer programs per se cannot be patented. However, this does not mean that computer-implemented inventions cannot be patented in Canada. One well-known recent example in Canada in which a patent was granted for a software related invention is the Amazon one-click case.

In that case, the so-called "one-click" method was the subject of a patent application. The method involves, among others, saving separately a user's profile information and appropriate user identification information to the user's computer and a server computer, respectively, when the user makes an on-line purchase at the server, to enable the server to retrieve the user's profile information later during a future visit. As a result, the user would not have to enter the profile information again when making future on-line purchases. This is a computer-implemented method. Amazon filed a patent application for the method. The Canadian Intellectual Property Office ("CIPO") initially rejected the application. One of the grounds was that the method was not

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[1] CBC: "New Zealand bans software patents", August 28, 2014; report available at http://www.cbc.ca/news/world/story/2013/08/28/new-zealand-software.html

[2] Canada (Attorney General) v. Amazon.com, Inc., 2011 FCA 328 (November 24, 2011), available at http://decisions.fca-caf.gc.ca/en/2011/2011fca328/2011fca328.html

[3] CIPO: "Practice Guidance Following the Amazon FCA Decision" (March 8, 2013), in which Exam Memo PN2013-02 and Exam Memo PN2013-03 were released to the public, available at http://www.cipo.ic.gc.ca/eic/site/cipointernet-internetopic.nsf/eng/wr03628.html.

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directed to patentable subject matter. Amazon appealed and won. The Court reaffirmed the earlier case law that the use of computer does not add nor subtract from the patentability of an invention. To determine whether the invention contains eligible subject matter for patenting, the Court instructed the patent office to follow the purposive construction methodology to construe, i.e., interpret, the patent claims and consider the claimed subject matter as a whole. The Court even went as far as stating that it is possible for a business method to be an essential element of a valid patent claim. The case was sent back to CIPO for reconsideration on expedited basis and a patent was issued shortly thereafter.

Following the Federal Court of Appeal's Amazon decision,[2] CIPO issued two Practice Notices[3] in March, 2013. In these two Practice Notices, Canadian examiners were instructed to first construe, i.e., interpret, claims following the purposive construction methodology and identify essential elements of a claim under examination. Further, "where a computer is found to be an essential element of a construed claim, the claimed subject-matter will generally be statutory." Because of the emphasis on "essential elements", the new practices mandated by these two Practice Notices would help determine the patentability issue of

only a subset of computer implements inventions. However, we still expect an increased consistency in how the patentability issue will be handled by Canadian examiners. Often, the lack of consistency in determining what may constitute patentable subject matter could present a big hurdle for technology companies in their patenting efforts. This increased consistency should provide some comfort to technology companies innovating in software technologies.

The guidance provided in these Practice Notices also would make it easier for applicants to overcome the hurdle of eligible subject matter

issue in certain cases, in particular where the computer may be an "essential element". For example, in the Practice Notices, examiners are told that a computer may be treated as an essential element of a claim if [the use of] computer cannot be varied or substituted in a claim without making a difference in the way the invention works. A computer also should be treated as an essential element if the computer is required to resolve a practical problem. The examiners are also instructed to treat inventions involving a "computer problem" and its solution differently from a non-computer problem. A claim directed to a "computer problem" and its

solution is more likely to be treated as containing eligible subject matter. In order to determine whether there is a "computer problem", examiners are instructed to consider the following factors:

- a specific problem with the operation of a computer is described in detail

- the solution involves controlling a chip, system component or technical architecture element

- the description emphasizes challenges or deficiencies in prior computers

- technical details, such as the algorithm or logic performed by the computer, are described with sufficient detail

On the other hand, if there are not sufficient technical details, despite an indication in the description that the solution be implemented on a computer, a "computer problem" may not exist, examiners were told.

This provides a good checklist when considering and preparing new applications (for Canada). For example, one should consider at the planning stage whether the computer/software technology to be patented is sufficiently developed. If so, enough details, such as the details of how a computer is used or the major routines or algorithms that are executed by various components of a computer, may be included in the application. Details about the use and configuration of specific hardware components or network connections with other computers may also be included in the application. These details, if included, will likely enable an examiner to conclude that the use of the computer is an essential element of the claimed subject matter.

Of course, overcoming the hurdle of eligible subject matter issue is only the minimum requirement. Once the claims are determined to contain eligible subject matter for patenting, the claims will be examined in the same manner as in any other technology, i.e., for novelty (whether identical technology exists), inventiveness (whether the claimed subject matter would be an obvious variation or combination based on existing knowledge) and utility. This is readily demonstrated in another recent case.

In a recent decision by the Commissioner of Patents, both eligible subject matter and inventiveness issues were considered by the Commissioner. The invention is about monitoring a driver's driving behaviour and habits ("operating characteristics") and calculating a corresponding insurance premium level. On-board sensors and in-vehicle computer system monitor and record parameters such as speed, rate of acceleration, time of driving, distance driven, destination, route of travel etc. The on-board computer and/ or a insurer's remote computer then compute an insurance premium based on the monitored parameters. A website system provides the detected "operating characteristics" and the corresponding insurance cost to the driver/insured. The examiner rejected the application on the grounds that there was no eligible subject matter and that the claimed subject matter would be obvious in view of the state of art. The Commissioner of Patents determined that the use of the in-vehicle computer cannot be varied or substituted without materially affecting how the invention works. Accordingly, the Commissioner reversed the examiner on subject matter ground. Nevertheless, the application was still refused because the Commissioner agreed with the examiner that the claimed subject matter lacked inventiveness, i.e., was "obvious", in view of the state of the art.

To conclude, while a "computer program" per se generally cannot be patented in Canada and many other countries, it is possible (and also routine) to obtain patents for inventions that require the use of computer or inventions implemented using computer software. Two recent Practice Notices issued by CIPO also would help applicants in their efforts to obtain such patents in Canada.

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