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# CANADA

# Revisions to Manual of Patent Office Practice (MPOP)

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# General Patentability Requirements

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- Novelty
- Utility
- Non-Obviousness
- Patentable Subject Matter

# Software and Business Method Patents in Canada

- New chapters have been added to MOPOP (Manual of Patent Office Practice) that deal with software and business methods.
- The protection available for software and business method inventions in Canada is not explicitly clear.
- One Canadian court decision on the patentability of software - *Schlumberger Canada Ltd. V. Commissioner of Patents*

# Schlumberger

- Related to a method of seismic prospecting involving the recording and analysis of measurement data.
- Held by the Federal Court that the invention was directed to mere calculations and the application was rejected as unpatentable.
- Statutory definition of invention: “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”.

# Schlumberger

- Court held that by discovering that by merely making certain calculations according to certain formulae, that useful information could be extracted from certain measurements is not an invention within the meaning of the *Act*.
- Important points:
  1. Ask what has been discovered according to the patent application?
  2. Fact that a computer has been used in the process of implementing a discovery does not change the nature of the discovery.
- CIPO in previous draft guidelines (Draft Chapter 26 that had been proposed in 2003) has said that the main defect in the application was in the computer implemented system, and if lesser dependence on human judgment had been shown through more integration of the data processing system this would have been patentable.

# Motorola and New MOPOP Chapters

- *Motorola* related to a device and method for evaluating exponentials. The Patent Appeal Board held that a device for processing an input value to provide an efficient determination of an output trigonometric value was patentable subject matter.
- Note, corresponding method held not to be patentable
- Presence of specific hardware element, ROM, was significant, even though no “physical transformation” was present

# Motorola and New MOPOP Chapters

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Canadian Patent Office has introduced into the MOPOP:

- a revised Chapter 12 (“Utility subject matter”); and
- a new Chapter 16 (“Computer-implemented inventions”).

# Computer-implemented invention

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- In Chapter 12, it is stated that claims consisting of code listings are not considered as patentable subject matter.
- Software in the form of an abstract theorem or algorithm is automatically excluded from patentability under 27(8) of the *Patent Act*, however software that has been integrated with traditionally patentable subject matter may be patentable.



# Assessing Subject Matter

- In Chapter 12, the test for assessing whether subject matter falls within the definition of invention is as follows:
  - (a) whether the subject matter relates to a useful art (as distinct from a fine art where the result produced is solely the exercise of personal skills, mental reasoning or judgment, or has only intellectual meaning or aesthetic appeal);

# Assessing Subject Matter

- (b) whether the subject matter is operable, controllable and reproducible by the means described by the inventor so that the desired result inevitably follows whenever it is worked;
- (c) whether the subject matter has an essentially economic result relating to trade, industry or commerce, which is beneficial to the public, provided that the process is an innovative method of applying skill or knowledge; and

# Assessing Subject Matter

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- (d) whether it is more than a mere scientific principle or abstract theorem (subsection 27(8) of the *Patent Act*).

# Assessing Subject Matter

- From Chapter 16:
  - For a method to be considered an art under section 2, it must be:
    - (a) an act or series of acts performed by some physical agent upon some physical object and producing in such object and producing in such object some change either of character or of condition; and
    - (b) it must produce an essentially economic result relating to trade, industry or commerce.

# Assessing Subject Matter

- Essential economic result:
- (a) a method for producing, making, constructing or building a vendible product;
- (b) a method of using or operating an inventive “thing” or a known “thing” for an inventive new use; or
- (c) a method of diagnosing a physical disease or physical medical condition in a human being.

# Chapter 16

## Computer-implemented inventions.

- Chapter 16 relates to inventions which utilize the processing function of a computer.
- The presence of a programmed general purpose computer or a program for such a computer does not lend patentability to, nor subtract patentability from, an apparatus or process.
- Computer-related subject matter is not excluded from patentability if the traditional criteria for patentability are satisfied.
- Software that has been integrated with traditionally patentable subject matter may be patentable.

# Chapter 16

- Should be noted that it is obvious that many methods, schemes, algorithms can easily be automated or implemented with computer or software, without there being a requirement for any inventive ingenuity.
- Subject matter that by itself is non-statutory (*i.e.* a computer program) if combined with statutory subject matter in an integrated manner, may become an integral and inseparable part of a combination that in its totality constitutes patentable subject matter.

# Business Method Patents in Canada

- Pure business methods are not patentable in Canada.
- *Lawson v. Commissioner of Patents*, dealt with a method of subdividing land.
  - Court held that a method of subdividing land lies in the skill of a Solicitor and Conveyancer.
  - Regarding the meaning of the term “art” in the definition of invention, the Court stated that “an art or operation is an act or series of acts performed by some physical agent upon some physical object and producing in such object some change either of character or of condition”



# Business Methods in Canada

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- *Shell Oil* dealt with a new use for an old compound, with respect to *Lawson* held that the application in *Lawson* was not rejected because the subject matter was not an ‘art’ but rather because it related to professional skill.
- *Progressive Games, Inc. v. Commissioner of Patents*, looked at the patentability of an application dealing with a poker game (a modified version of five card stud). The Federal Court held that the Applicant’s change in the method of playing poker did not result in an innovative method of applying skill or knowledge.

# Business Methods in Canada

- The Harvard Mouse case although not dealing specifically with business methods, may have an impact on the patentability of business methods.
  - The case dealt with the definition of “invention” as found in the *Act*. The court found that “invention” should not be broadly interpreted, as the statute used an exhaustive definition of “invention” which signaled a clear intention to include certain subject matter as patentable and to exclude other subject matter.

# MOPOP and Business Methods

- Chapter 12 of MOPOP (Utility and Subject Matter) in the introduction states that:
  - “The expression “business methods” refers to a broad category of subject matter which often relates to financial, marketing and other commercial activities. These methods are not automatically excluded from patentability, since there is no authority in the *Patent Act* or *Rules* or in the Jurisprudence to sanction or preclude patentability based on their inclusion in this category. Patentability is established from criteria provided by the *Patent Act* and *Rules* and from Jurisprudence as for other inventions.”
  - Therefore, the fact that something is a business method does not automatically exclude it from patentability.

# MOPOP Examples

- Examples of subject matter that lack utility or subject matter are provided for in Chapter 12.
  - Among the items listed are, processes or products of processes that depend entirely on personal skills, performing purely mental acts
  - Also, a mere scheme, plan, speculation, or idea such as a rule for doing business, a method of accounting or providing statistics, a personality or I.Q. test and the like are also said to be examples of subject matter that lack utility or that are not recognized as statutory subject matter.

# What is being patented in Canada?

- Although pure business methods are not allowed in Canada, Canadian examiners are allowing computer implemented business methods.
- A recent search of IPC G06F 17/60 (dealing with data processing equipment for Administrative, commercial, managerial, supervisory or forecasting purposes) found that 277 patents have been issued in this subgroup. Notably, among them are:
  - 2,186,113 “Computer System and Method for Determining a Travel Scheme Minimizing Travel Costs for an Organization”
  - 2,273,971 “In-store Points redemption system and method”

# Claim Drafting and Strategies

- Three categories of claims are acceptable
  - Art or process (method) claims
    - Claims will define the process that takes place in the computer when the program is run. The claim will define the data and the processing steps which are to be performed on the data.
  - Machine (apparatus and system) claims
    - A computer that has been configured with a novel computer program is not considered to be the same machine when the computer has been programmed in another way.
  - Manufacture (products or computer media, including signals, embodying code or data structures) claims
    - Claims will define a computer readable memory which stores statements and instructions that will be executed by a data processing system which will direct the system to function in a particular way.

# Claim Drafting and Strategies Cont.

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- With respect to business methods and software, as the position in Canada is not entirely clear, and as some commentators have pointed out that there seems to be a convergence of the Canadian and U.S positions, if the examination of an application can be delayed then it may be worth considering.

# MOPOP, Chap. 16: Example Claim

## Art or process claims: Example

Claim 1. A method of enrolling signature information of an authorized user onto an identification card comprising the steps of:

- a. collecting samples of a signal at a rate of at least "n" times a frequency component of said signal which is to be preserved, where "n" is an integer greater than four;
- b. digitally filtering said samples representing said signal to remove high frequencies; and
- c. storing said filtered samples on said card.



# MOPOP, Chap. 16: Example Claim

## Machine claims: Example

Claim 2. An apparatus for enrolling signature information signals of an authorized user onto an identification card comprising:

- a. means for collecting samples of a signal at a rate of at "n" times a frequency component of said signal which is to be preserved, where "n" is an integer greater than four;
- b. a filter for digitally filtering said samples representing said signal to remove high frequencies; and
- c. means for storing said filtered samples on said card.

# MOPOP, Chap. 16: Example Claim

## Computer program on a record carrier: Example

Claim 4. A computer program product, comprising: a memory having computer readable code embodied therein, for execution by a CPU, for compressing signature information signals of an authorized user onto an identification card, said code comprising:

- a. sampling code means for collecting samples of a signal at a rate of at least "n" times a frequency component of said signal which is to be preserved, where "n" is an integer greater than four;
- b. digital filtering code means for digitally filtering said samples representing said signal to remove high frequencies; and
- c. storing code means for storing the filtered samples on said card.

# MOPOP, Chap. 16: Example Claim

## Computer program on a signal medium: Example

Claim 6. A carrier wave embodying a computer data signal representing sequences of statements and instructions which, when executed by a processor cause the processor to enroll signature information of an authorized user onto an identification card, the statements and instructions comprising the steps of:

- a. collecting samples of a signal at a rate of at least  $n$  times a frequency component of said first signal which is to be preserved, where  $n$  is an integer greater than four;
- b. digitally filtering said samples representing said first signal to remove high frequencies; and
- c. storing the remaining of the filtered samples on said card.

# MOPOP, Chap. 16: Example Claim

## Data structures: Example

Claim 7. A memory for storing data for access by an application program being executed on a data processing system, comprising: a data structure stored in said memory, said data structure including information resident in a database used by said application program and including:

- a. compressed video data stored in said memory having a plurality of frames including a plurality of reference frames, said compressed video data representing video footage in compressed form; and

# MOPOP, Chap. 16: Example Claim

## Data structures: Example - Continued

b. a table stored in said memory associating an identifier for each portion of said video footage to be accessed with a pointer corresponding to the closest reference frame to a first frame of the portion of said video footage to be accessed such that said table may subsequently be displayed to allow a user to select one of the identifiers stored in said table using an input device and thereby to access and view the portion of said video footage corresponding to the selected identifier.

# MOPOP, Chap. 16: Example Claim

## Examples involving mathematical formulae

Claim 10. A computer implemented method for evaluating  $f=ay$  more quickly and efficiently at the expense of a given amount of accuracy, comprising the steps of:

- a. receiving as input, variable "y" and desired base "a";
- b. automatically calculating a first scaled value using "y", "a", and a predetermined base;
- c. automatically generating an approximation value using said first scaled value and a stored predetermined set of values;
- d. automatically determining a first exponential value having said predetermined base;

# MOPOP, Chap. 16: Example Claim

## Examples involving mathematical formulae - Continued

- e. automatically generating an adjusted error value using said first scaled value and said approximation value; and
- f. automatically determining a correction value using said adjusted error value;
- g. automatically determining a substantially accurate value for “f”, using said first exponential value and said correction value; and
- h. outputting said substantially accurate value for “f”.

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