

## Can computer-based innovation be patented?

One of the most frequent questions asked of patent practitioners working in the electronics field is whether a computer-based innovation can be patented.

The answer can depend on several factors and is not always an easy one. Further complicating things is a fast-changing legal landscape, which in recent years has seen significant changes in the types of things that can be patented. In view of this, it's not surprising that the Canadian Intellectual Property Office (CIPO) [<http://cipo.gc.ca/>] has once again revised its guidelines to help both inventors and practitioners address this issue.

Perhaps counter-intuitively, not every innovation is patentable in Canada. The Patent Act sets out that 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 can be patented. Over time, our courts have supplemented this definition so that we now have better ideas of what exactly is meant by "art" or "composition of matter."

For example, radiofrequency signals are not considered to be patentable, as they do not contain matter. However, a radio used to generate such signals can be patented, as it is considered a machine.

Recently, CIPO has undertaken a significant shift in its examination policy. This shift has had the effect of excluding or limiting many types of computer-based innovations and, in particular, software and business method innovations.

In view of these changes, CIPO has revised Chapter 16 in the Manual of Patent Office Practice (MOPOP) [<http://ow.ly/2TFVV>]. MOPOP is used by patent Examiners and agents alike to explain in simplified terms the requirements of the Patent Act and Patent Rules, which govern the process of obtaining patents. The chapter in question, last revised in 2005, deals specifically with computer implemented inventions. In view of the recent policy changes, this particular chapter was due for a major overhaul.

The revised chapter "indeed, all of MOPOP" is written in easy-to-understand language, avoiding legalese as much as possible. Read on its own, the chapter can be a good primer on patents. It contains sections relating to each of the requirements for obtaining a patent: proper subject matter, usefulness, sufficient description, novelty and non-obviousness. More importantly, the chapter attempts to explain the relevance and applicability of each requirement to computer-based inventions.

A large portion of the revised chapter is devoted to analyzing each category of patentable subject matter as it applies to computer-based inventions. In general, such inventions can be claimed as an art, process or method of manufacture (i.e., a "method" of doing something). Inventions may also be claimed as machines, which in this case generally rely on a computer for their operation. Finally, they may be claimed as a product or article of manufacture. This latter category is most often used to claim physical copies of computer software, such as a CD.

Although the range of patentable subject matter may appear quite broad, many common types of innovations cannot be claimed directly as such. These include computer programs, data structures, and computer-generated signals. To be patentable, these innovations must be integrated with another statutory class of subject matter.

A guiding principle in the revised chapter is that the mere use of a computer does not change the nature of the underlying discovery. In other words, implementing an existing process or calculation by computer will not by itself lend patentability. However, if some inventive ingenuity is needed to adapt the computer so that it can implement the process, then there may very well be a patentable invention.

The new chapter takes effect immediately. However, several pending court cases may spell further policy changes in the near future. Regardless, the chapter and its many examples can still serve as a useful introduction to patenting computer-based inventions in Canada.

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