

WHAT IS AN INVENTION?

Canada's Approach to Patentable Subject Matter

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Can I patent an app? What about a new rapid test for COVID-19? Creativity and innovation can take on many different forms, but not all innovative creations are considered to be “inventions” that are eligible for patent protection. Although patent protection is available worldwide, different countries have different criteria for what they consider to be patentable subject matter. Canada has a unique approach to subject matter eligibility, resulting in both opportunities and challenges for inventors, particularly in the software and biotechnology fields.

HOW DOES CANADA DEFINE AN “INVENTION”?

Under the Canadian *Patent Act*, an “invention” is defined as any new and useful art, process, machine, manufacture or composition of matter (or any new and useful improvement thereof). In addition, the *Patent Act* prohibits patenting “any mere scientific principle or abstract theorem.” Canadian court decisions have also clarified some exceptions to patent-eligible subject matter, including methods of medical treatment. Many forms of innovation fall within

these boundaries of patentable subject matter. For example, diverse inventions, including computer hardware, medical devices, pharmaceuticals, manufacturing processes and a wide variety of consumer products, are all potentially patentable in Canada.

However, other forms of innovation are more difficult to categorize. Two areas that have been particularly controversial are software and diagnostics. Many computer-implemented inventions involve an abstract theorem, such as an algorithm, that has been implemented in a specific way by a computer. New diagnostic methods often are based on a newly discovered scientific principle, such as a correlation between a biological marker and a disease state, rather than new laboratory techniques. For these types of innovation, drawing the line between invention and a mere scientific principle or abstract theorem can be challenging.

DETERMINING PATENT ELIGIBILITY – LOOKING TO THE CLAIMS

Every patent or patent application includes at least one claim that defines the scope of patent protection. In Canada, to deter-

mine if a patent is directed to eligible subject matter, the first step is to look at the claims.

As set out by the Supreme Court of Canada, the language of the claims should not be interpreted literally, but rather should be “purposely construed” to understand how the claims would be read by a skilled person within the same technical field (*Free World Trust v Électro Santé Inc.*, [2000] 2 S.C.R. 1024 and *Whirlpool Corp v Camco Inc.*, [2000] 2 S.C.R. 1067).

Purposive construction includes determining whether claim elements are “essential” or “non-essential.” Essential elements are those that must be part of the claimed invention, while non-essential elements may be varied or even omitted. This determination of “essential” or “non-essential” requires answering two key questions:

1. Would it be obvious to a skilled person that substituting or omitting an element would not affect how the invention works? If yes, then that element is non-essential.
2. Is it clear from the wording of the claims that the inventor intended an

element to be essential, regardless of the answer to question #1? If yes, then that element is essential.

Canadian courts have held that purposive patent construction is the starting point for any determination of the validity or infringement of a patent. In addition, in *Canada (Attorney General) v. Amazon.com, Inc.*, 2011 FCA 328, the court confirmed that analysis of patent subject matter eligibility must also be based on purposive construction of the claims.

THE PREVIOUS APPROACH AT THE CANADIAN PATENT OFFICE

Following the *Amazon* decision, the Canadian Patent Office released subject matter-eligibility guidelines that were purportedly based on the court's analysis. However, the Patent Office applied its own "problem-solution" approach to claim construction. According to this approach, "essential" elements are only those required to provide a solution to an identified problem. Those elements not required for the particular solution were designated "non-essential" and were effectively omitted from consideration.

The "problem-solution" test was used by the Patent Office for several years and led to frustration for many applicants. For computer-implemented inventions and diagnostic methods, physical elements such as computer hardware components and standard laboratory techniques were often found to be "non-essential," resulting in claims being rejected for being patent ineligible. For example, a step of taking measurements with a physical sensor may be considered non-essential if the sensor measurement step alone was considered conventional by the examiner.

However, in 2020, Canada's Federal Court issued a welcome rejection of the Patent Office's approach in *Yves Chouiefaty v Attorney General of Canada*, 2020 FC 837, concluding that the "problem-solution" method was not the proper legal test for patent eligibility.

THE NEW APPROACH AT THE CANADIAN PATENT OFFICE

Following the *Chouiefaty* decision, in November 2020, the Canadian Patent Office issued a new practice notice on patentable subject matter that confirmed that the "problem-solution" approach should no longer be applied. The practice notice outlined a new test as follows:

1. Purposive construction: The first step is to construe the claim in question to determine the subject matter defined

by the claim and to identify elements as either "essential" or "non-essential."

2. Assessment of patentable subject matter: The next step is to assess the subject matter defined by a claim for patent eligibility. To be patent eligible, the subject matter "must be limited to or narrower than an actual invention that either has physical existence or manifests a discernable physical effect or change and that relates to the manual or productive arts." The "actual invention" may consist of a single element or a combination of elements that cooperate to provide a solution to a problem.

Although this test arguably still diverges from the case law in considering the "actual invention," the new approach is less restrictive than the Patent Office's previous guidelines and is generally more favorable to applicants. Since the issuance of the new practice notice over a year ago, many patent applications have been allowed that would likely have been refused under the old "problem-solution" framework.

STRATEGIES TO PATENT ELIGIBILITY IN CANADA

Although the Canadian Patent Office's new approach is an improvement over previous guidelines, applicants of inventions that don't easily fall within one of the statutory categories of "invention," such as software and diagnostics, still need to carefully consider the wording of the claims to avoid (or overcome) potential rejections for ineligibility.

Often, including at least one physical element, or an element that produces a discernible physical effect or change, can render a claim as a whole patent eligible. The element should not be arbitrary but should interact with other essential elements of the claim to achieve a desired result. For example, a computer-implemented invention may be patent eligible if the claim includes an application step that applies the results of computer processing steps in a physical process e.g., drilling for oil based on the results of processing seismic data on a computer. Similarly, a diagnostic claim that includes a step or device for collecting a biological sample on which the diagnosis is based may also be considered patentable subject matter.

In addition, based on a recent decision of the Patent Appeal Board (Commissioner's Decision No. 1583 *Qiagen Redwood City, Inc. (Re)*, 2021 CACP 30), computer-implemented inventions that include elements that improve the function-

ing of the computer, such as improvements to the computer's processing efficiency, may also provide patent-eligible claims.

COMPARISON WITH THE UNITED STATES

The overall principles of patent eligibility in the U.S. share many similarities with the Canadian approach. The four statutory categories of inventions in the U.S. are: processes, machines, manufactures, and compositions of matter. Non-patentable "judicial exceptions" are abstract ideas, laws of nature, and natural phenomena. However, the U.S. has seen considerably more case law on the subject than Canada. The U.S. courts have established a subject matter-eligibility test based on *Alice Corp. v. CLS Bank International*, 573 U.S. 208 (2014) and *Mayo v. Prometheus*, 566 U.S. 66 (2012) that differs from the purposive construction framework used in Canada.

While the majority of inventions that are considered patentable subject matter in the U.S. would also likely be patent eligible in Canada, distinctions between the approaches followed in each country may warrant consideration when devising patent strategies, particularly in the software and diagnostic fields.

CONCLUSION

The definition of "invention" in Canada is broad and encompasses a wide array of innovations. The new Canadian Patent Office guidelines are more flexible than in the past, and strategic drafting and amendment of the claims can lead to patents being granted in traditionally difficult spaces, including software and diagnostics. Based on these changes, there is increased confidence that these types of inventions are patent eligible in Canada, and we recommend applicants in these industries who have previously passed on including a Canadian patent in their portfolio reach out to a Canadian Patent Agent to explore filing in Canada.



Dr. Angela Keuling is a registered Canadian Patent Agent and Trademark Agent at Parlee McLaws LLP. Her previous experience in intellectual property management in the biotechnology industry and at a government research organization helps her to develop and implement effective IP strategies aligned with commercialization pathways and business needs.