

Federal Court of Canada corrects CIPO on claims construction

August 28, 2020

In a long-awaited decision, the Federal Court of Canada (FCC) has admonished the Canadian Intellectual Property Office's (CIPO) failure to follow the Supreme Court of Canada (SCC) on claims construction.¹ The decision in [Choueifaty](#) provides welcome hope for computer-implemented inventions and medical diagnostics, the patenting of which has been obstructed in Canada by an examination practice that is inconsistent with leading jurisprudence.

Background

The SCC established the tenets of purposive claims construction in the landmark *Free World Trust* and *Whirlpool* decisions,^{2,3} emphasizing adherence to the language of the claims and the intent of the inventor.⁴

For many years now, CIPO has promulgated a distinct “problem-and-solution” approach to claims construction. Under this approach, CIPO has effectively instructed its examiners to ignore claim elements that are not part of the solution to a pre-existing “problem”. The “problem”, according to CIPO, is determined based on common general knowledge and the teachings of the patent application. The approach often excludes conventional claim features from consideration, regardless of the inventor's intent. For its numerous departures from jurisprudence, CIPO's approach has been criticized, including in the national press.^{5,6,7}

The problem-and-solution approach disproportionately affects computer-implemented inventions and those in the field of medical diagnostics. CIPO published specific guidelines for examining these technical areas in 2013 and 2015, respectively, which were later incorporated into CIPO's Manual of Patent Office Practice (MOPOP).

For computer-implemented inventions, subject matter eligibility typically depends on whether a physical element is deemed essential. However, the problem-solution approach often concludes that computing elements, such as processors and memory, merely form part of the operating environment of the solution. To this end, examiners will assert that pen-and-paper solutions offer a suitable alternative to the mere convenience provided by computer-based solutions. As a result, examiners generally

deem computer hardware non-essential and computer-implemented inventions routinely fail to pass examination for want of eligible subject matter.

For diagnostic inventions, examiners must choose between a “data acquisition problem” and a “data analysis problem”. There is no “diagnostic problem”, according to CIPO; hence, the possible interpretations of a claim are always constrained from the outset.⁸ A “data analysis problem” is identified for any invention involving an analyte that was known to science. In this case, data acquisition steps are excluded from analysis, and the essential features are limited to the disease-correlation steps, which are rejected as disembodiment mental steps. In the alternative analysis, the essential features will be limited to the step of measuring the analyte. With the disease correlation excluded from consideration, the claim is typically rejected as anticipated and/or obvious. While diagnostic claims can sometimes still be granted, this usually requires significant additional technical limitations, and granted diagnostic claims are rarely commensurate with the actual scope of the invention disclosed.

The problem-and-solution approach thus results in examination of subject matter eligibility based on something much less than what is claimed and further ties this eligibility to an assessment of common general knowledge.

The 2,635,393 application

In Choueifaty, the FCC considered Canadian Patent Application No. 2,635,393, directed to computer-implemented methods for selecting and weighing investment portfolio assets in order to minimize risk without impacting returns. Claim 1 read as follows:

1. A computer-implemented method for providing an anti-benchmark portfolio, the method comprising: acquiring, using a computer system, data regarding a first group of securities in a first portfolio, wherein the computer system comprises a computer processor and memory coupled to said processor, identifying, using a computer system, a second group of securities to be included in a second portfolio based on said data and on risk characteristics of said second group of securities, and providing, using a computer system, the individual weightings for each of the securities in said second portfolio according to one or more portfolio optimization procedures that maximizes the anti-benchmark ratio for the second portfolio wherein the anti-benchmark ratio is represented by the quotient of: a numerator comprising an inner product of a row vector of holdings in said second portfolio and a column vector of a risk characteristic of return associated with said holdings in said second portfolio; and a denominator comprising the square root of a scalar formed by an inner product of said row vector of said holdings in said second portfolio and a product of a covariance matrix and a column vector of said holdings of said second portfolio.

The Examiner applied CIPO’s problem-and-solution approach and objected to the claims for encompassing non-patentable subject matter. The Patent Appeal Board agreed with the Examiner’s approach and conclusions, stating that the essential elements were limited to “a scheme or rules involving mere calculations,” and that, “When a claim’s essential elements are only the rules and steps of an abstract algorithm, however, that claim is non-statutory.”⁹

The Choueifaty decision

On appeal from a decision of the Patent Appeal Board which rejected all claims of the '393 application, the FCC found CIPO's approach to claims construction was different to the "purposive construction" established by the SCC:

It is evident on a reading of the MOPOP that the Commissioner, notwithstanding stating that the patent claims are to be construed in a purposive manner, does not intend or direct patent examiners to follow the teachings of **Free World Trust** and **Whirlpool**.¹⁰

The FCC found that CIPO's approach to claims construction had been expressly eschewed by the SCC:

The Appellant submits, and I agree, that using the problem-solution approach to claims construction is akin to using the "substance of the invention" approach discredited by the Supreme Court of Canada in *Free World Trust* at para 46.¹¹

The FCC stated that the correct test for essentiality is the SCC's test, which requires consideration both of the effects of varying a particular element, and the intent of the inventors, as reflected in the wording of the claims:

As noted earlier, in **Free World Trust** at para 55 the Supreme Court of Canada set out the principles to apply when determining whether a claim element is essential or non-essential. That test asks the following separate questions:

1. Would it be obvious to a skilled reader that varying a particular element would not effect the way the invention works? If modifying or substituting the element changes the way the invention works, then that element is essential.
2. Is it the intention of the inventor, considering the express language of the claim, or inferred from it, that the element was intended to be essential? If so, then it is an essential element.¹²

The FCC stated that CIPO employed the wrong test for essentiality:

...I find that the Commissioner erred in determining the essential elements of the claimed invention by using the problem-solution approach, rather than the approach **Whirlpool** directs be used.¹³

Implications for prospective patentees in Canada

While the time for appeal has not yet passed, if the decision stands, it should result in CIPO realigning its practices with long-settled law on claims construction, resolving confusion and controversy dating back more than a decade. Applicants who have faced intransigent objections, who may have abandoned their applications, or who may be considering abandonment, will now have a new basis for argument and may wish to hold out for a return to examination under more favourable principles grounded in SCC jurisprudence.

¹ Choueifaty v. Canada (Attorney General) 2020 FC 837 [Choueifaty].

² Free World Trust v. Électro Santé Inc., 2000 SCC 66.

³ Whirlpool Corp. v. Camco Inc., 2000 SCC 67.

⁴ Ibid at para 31.

⁵ Owens, Richard C. “The disturbing problem at Canada’s Patent Office: It’s suddenly denying medical-test patents.” The Financial Post, December 13, 2018.

⁶ Galloway, Gloria. “Diagnostic patents denied to researchers who link known body chemicals to disease.” The Globe and Mail, April 25, 2018.

⁷ Siebrasse, Norman, “Diagnostic Methods at CIPO.” Sufficient Description, January 8, 2018.

⁸ Boocock, Graeme, “[CIPO’s Examination Guidelines for Medical Diagnostic Methods Turn Three](#),” BLG Publication, July 12, 2018.

⁹ Supra note 1 at para 16.

¹⁰ Supra note 1 at para 31.

¹¹ Supra note 1 at para 37.

¹² Supra note 1 at para 38.

¹³ Supra note 1 at para 40.

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