

Citation: Acoustic L.P. (Re), 2021 CACP 39

Commissioner's Decision #1592

Décision du commissaire n°1592

Date: 2021-08-23

TOPIC: J00 Meaning of Art  
J10 Computer Programs  
J40 Mental Steps

SUJET: J00 Signification de la technique  
J10 Programmes d'ordinateur  
J40 Processus psychologique

Application No. : 2,742,315

Demande n° 2 742 315

IN THE CANADIAN PATENT OFFICE

DECISION OF THE COMMISSIONER OF PATENTS

Patent application number 2,742,315 having been rejected under subsection 30(3) of the *Patent Rules* (SOR/96-423) as they read immediately before October 30, 2019, has consequently been reviewed in accordance with paragraph 199(3)(c) of the *Patent Rules* (SOR/2019-251). The recommendation of the Patent Appeal Board and the decision of the Commissioner are to refuse the application.

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## INTRODUCTION

- [1] This recommendation concerns the review of rejected Canadian patent application number 2,742,315 (the instant application), which is entitled “METHOD AND APPARATUS FOR CONFIGURABLE MODEL-INDEPENDENT DECOMPOSITION OF A BUSINESS METRIC” and is owned by Acoustic L.P. (the Applicant). A review of the rejected application has been conducted by the Patent Appeal Board (the Board) pursuant to paragraph 199(3)(c) of the *Patent Rules* (SOR/2019-251). As explained in more detail below, the Board’s recommendation is that the Commissioner of Patents refuse the application.

## BACKGROUND

### The Application

- [2] The application, based on a previously filed Patent Cooperation Treaty application, is considered to have been filed in Canada on October 30, 2009. It was laid open to public inspection on May 6, 2010.
- [3] The application relates generally to analysis of multi-dimensional data and more particularly to determining the effect of marketing activities on a business metric. The application has 20 claims on file, which were received at the Patent Office on June 8, 2017.

### Prosecution History

- [4] On March 19, 2018, a Final Action (FA) was written pursuant to subsection 30(4) of the *Patent Rules*, as they read immediately before October 30, 2019. The FA stated that the instant application is defective because all of the claims on file are directed to subject-matter outside of the definition of invention and therefore are not compliant with section 2 of the *Patent Act*.
- [5] In an August 27, 2018 response to the FA (RFA), the Applicant submitted arguments in favour of the patentability of the claims on file, as well as a set of proposed claims (the proposed claims).
- [6] As the Examiner still considered the application not to comply with section 2 of the *Patent Act*, pursuant to paragraph 30(6)(c) of the *Patent Rules*, as they read immediately before October 30, 2019, the application was forwarded to the Board for review on February 20,

2019 along with an explanation outlined in a Summary of Reasons. The Summary of Reasons set out the position that the claims on file were still considered to be defective, and that the proposed claims would not cure the primary subject-matter defect.

- [7] In a letter dated February 20, 2019, the Board forwarded to the Applicant a copy of the Summary of Reasons and requested that the Applicant confirm its continued interest in having the application reviewed.
- [8] In a letter dated March 7, 2019, the Applicant confirmed its interest in having the review proceed.
- [9] I reviewed the application on behalf of the Board under paragraph 199(3)(c) of the *Patent Rules*. In a preliminary review letter (PR letter) dated June 15, 2021, I set out my preliminary analysis of the issue with respect to the claims on file and the proposed claims. I also provided the Applicant with an opportunity to make oral and/or written submissions.
- [10] In a letter dated August 12, 2021 the Applicant declined the opportunity for an oral hearing and indicated that there would be no further written submissions.

## **ISSUES**

- [11] The sole issue to be addressed by the present review is whether the claims on file are directed to subject-matter which meets the definition of invention found at section 2 of the *Patent Act* and whether the claims are directed to patentable subject-matter according to subsection 27(8) of the *Patent Act*.
- [12] I also consider the proposed claims.

## **LEGAL PRINCIPLES AND OFFICE PRACTICE**

### Purposive Construction

- [13] In accordance with *Free World Trust v Électro Santé Inc*, 2000 SCC 66 and *Whirlpool Corp v Camco Inc*, 2000 SCC 67, purposive construction is performed from the point of view of the person skilled in the art in light of the relevant common general knowledge (CGK), considering the whole of the disclosure including the specification and drawings. In addition to interpreting the meaning of the terms of a claim, purposive construction distinguishes the essential elements of the claim from the non-essential elements. Whether

or not an element is essential depends both on the intent expressed in or inferred from the claim, and on whether it would have been obvious to the skilled person that a variant has a material effect upon the way the invention works.

- [14] “Patentable Subject-Matter under the *Patent Act*” (CIPO, November 2020) [PN2020–04] also discusses the application of these principles, pointing out that all elements set out in a claim are presumed essential unless it is established otherwise or such presumption is contrary to the claim language.

### Patentable Subject-Matter

- [15] The definition of invention is set out in section 2 of the *Patent Act*:

Invention means 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.

- [16] Subsection 27(8) of the *Patent Act* also prescribes that:

No patent shall be granted for any mere scientific principle or abstract theorem.

- [17] PN2020-04 clarifies examination practice with respect to the Patent Office’s understanding of the legal principles applicable in determining whether the subject-matter defined by a claim is patentable subject-matter:

To be both patentable subject-matter and not be prohibited under subsection 27(8) of the *Patent Act*, the subject-matter defined by a claim must be limited to or narrower than an actual invention that either has physical existence or manifests a discernible physical effect or change and that relates to the manual or productive arts, meaning those arts involving or concerned with applied and industrial sciences as distinguished in particular from the fine arts or works of art that are inventive only in an artistic or aesthetic sense.

This references, in part, *Canada (Attorney General) v Amazon.com, Inc*, 2011 FCA 328 paras 42 and 66-69.

- [18] PN2020–04 further describes the Patent Office’s approach to determining if a computer-related invention is patentable subject-matter. For example, the mere fact that a computer is among the essential elements of the claimed invention does not necessarily mean that the

claimed invention is patentable subject-matter. An algorithm itself is abstract and unpatentable subject-matter. A computer programmed to merely processes the algorithm in a well-known manner without solving any problem in the functioning of the computer will not make it patentable subject-matter because the computer and the algorithm do not form part of a single actual invention that solves a problem related to the manual or productive arts. On the other hand, if processing the algorithm improves the functionality of the computer, then the computer and the algorithm would together form a single actual invention that solves a problem related to the manual or productive arts and the subject-matter defined by the claim would be patentable.

- [19] In *Schlumberger Canada Ltd v Commissioner of Patents*, [1982] 1 FC 845 (CA) [*Schlumberger*], the Court concluded that, although computers were necessary for the invention to be put into practice, the computer did not form part of “what has been discovered” and thus was not relevant in determining whether the claimed invention was patentable subject-matter; the computer was merely being used to make the kind of calculations it was invented to make.

## **ANALYSIS**

### Purposive Construction

- [20] The FA at page 2 characterized the skilled person and common general knowledge as follows:

In view of statements in the description, the person skilled in the art to which the application is directed can be characterized as a group comprising people with experience in business, economics, and market analysis.

The person skilled in the art would possess the following CGK: market response models, measurable business metrics, business activities and promotions.

- [21] In the RFA, the Applicant did not dispute these characterizations. As I wrote in the PR letter, I adopt them but add that the skilled person or team would include a computer programmer and their common general knowledge would include how to program mathematical data processing algorithms on a general-purpose computer.

- [22] The FA at pages 2-3 performed a purposive construction that resulted in a set of essential

elements for certain claims according to a previous Patent Office practice, now superseded by *PN2020-04*. I undertake anew the identification of essential elements.

[23] Independent claim 1 is representative and reads:

A computer implemented method, comprising:

directing a processor to access a response model and a plurality of activities, the response model and the plurality of activities used to compute an expected business metric, wherein each of the plurality of activities has a reference value and an executed value;

directing the processor to compute a contribution to the business metric for each of the plurality of activities using the response model based on setting a first activity to one of the corresponding reference and executed values and setting others of the plurality of activities to a value state opposite of the first activity, wherein the computing each of the contributions is independent of a response model type;

directing the processor to compute an incremental response by subtracting the response model with the plurality of the activities in the reference value from the response model with the plurality of the activities in the executed value; and

directing the processor to compute a synergy by subtracting a summation of each contribution to the business metric from the incremental response.

[24] According to *PN2020-04*, a purposive construction considers where the skilled person would have understood the applicant to have intended to place the fences around the monopoly being claimed.

[25] Considering the whole of the specification, the skilled person would understand that there is no use of language indicating that any of the elements in the claim are optional or one of a list of alternatives. Therefore, in my view, as expressed in the PR letter, all elements recited in claim 1 are considered to be essential, including the computer processor.

[26] Independent claims 11, 15 and 18, directed to a computer-readable storage medium, an apparatus and a system, respectively, have similar essential elements to claim 1.

[27] The dependent claims add details of the computational algorithm and various metrics.

#### Patentable subject-matter

[28] Given that my view of the essential elements differs from that of the FA, and in view of the



updated Patent Office practice, I undertake anew the assessment of patentable subject-matter according to *PN2020-04*.

[29] As described above in the section “Legal Principles and Patent Office Practice” I assess for each claim whether the subject-matter it defines forms a single actual invention having physical existence or causing a discernible physical effect or change.

[30] As I wrote in the PR letter:

The computer or processor or machine-readable storage medium are the only essential elements having physicality. However, the situation here is similar to that of *Schlumberger* where the presence of a programmed general-purpose computer did not prevent the claimed invention from being found to be non-patentable. According to *PN2004*, a computer merely carrying out calculations as it was designed to do is not considered part of a single actual invention with the calculations themselves.

In all the claims, the actual invention appears to be accessing a response model and certain activities (receiving input data), and computing contributions to a business metric, computing an incremental response, and computing a synergy. This constitutes an abstract algorithm and is prohibited subject-matter according to subsection 27(8) of the *Patent Act*.

[31] In my view, all claims on file do not meet the physicality requirement for patentable subject-matter according to *Amazon.com*, as referenced in *PN2020-04* and do not comply with the definition of “invention” according to section 2 of the *Patent Act*. Further, all claims are directed to abstract subject-matter prohibited under subsection 27(8) of the *Patent Act*.

## **PROPOSED CLAIMS**

### Patentable subject-matter

[32] Proposed claim 1 is representative and reads:

A computer implemented method comprising: accessing a response model and a plurality of activities, the response model and the plurality of activities used to compute an expected business metric, wherein each of the plurality of activities has a reference value and an executed value; computing, using a processor, a contribution to the expected business metric for each of the plurality of activities using the response model based

on setting a first activity to a corresponding one of the reference value and the executed value and setting others of the plurality of activities to a value state opposite of the first activity, wherein the computing of each said contribution is independent of a response model type; computing, using the processor, an incremental response by subtracting the response model with the plurality of activities in the reference value from the response model with the plurality of activities in the executed value; and computing, using the processor, a synergy by subtracting a summation of each contribution to the expected business metric from the incremental response.

[33] The proposed claims make it more clear that there is a computer processor executing the algorithm, but add no essential elements. That there is a physical computer positively recited in the claims is not in dispute. As I wrote with respect to the claims on file, the computer recited in the proposed claims is an essential element, but is not considered to be part of the actual invention. The computer is merely doing computations in the manner in which it is designed to do, as in *Schlumberger*.

[34] In my view, the proposed claims do not meet the physicality requirement for patentable subject-matter according to *Amazon.com*, as referenced in *PN2020-04* and do not comply with the definition of “invention” according to section 2 of the *Patent Act*. Further, the proposed claims are directed to abstract subject-matter prohibited under subsection 27(8) of the *Patent Act*. Therefore the proposed claims do not constitute “necessary amendments” according to subsection 86(11) of the *Patent Rules*.

## **CONCLUSION AND RECOMMENDATION OF THE BOARD**

[35] For the reasons set out above, I recommend that the Commissioner of Patents refuse this application as the claims on file are directed to non-patentable subject-matter and are therefore non-compliant with section 2 of the *Patent Act*. The claims are also prohibited according to subsection 27(8) of the *Patent Act*. The proposed claims do not cure the primary subject-matter defect and therefore do not constitute “necessary amendments” according to subsection 86(11) of the *Patent Act*.

Howard Sandler

Member

## **DECISION OF THE COMMISSIONER**

[36] I concur with the conclusion and recommendation of the Board that the application be refused on the ground that the claims on file are directed to non-patentable subject-matter and are non-compliant with section 2 of the *Patent Act* and are prohibited subject matter according to subsection 27(8) of the *Patent Act*.

[37] Therefore, in accordance with section 40 of the *Patent Act*, I refuse to grant a patent on this application. Under section 41 of the *Patent Act*, the Applicant has six months within which to appeal my decision to the Federal Court of Canada.

Virginie Ethier  
Assistant Commissioner of Patents

Dated at Gatineau, Quebec

this 23<sup>rd</sup> day of August 2021