Commissioner's Decision No. 1450
Décision du commissaire n^{o} 1450

TOPICS: J–00 Meaning of Art
J–50 Mere Plan

SUJETS: J–00 Signification de la technique
J–50 Simple plan

Application No. 2,841,616
Demande n^{o} 2 841 616

IN THE CANADIAN PATENT OFFICE

DECISION OF THE COMMISSIONER OF PATENTS

Patent application number 2,841,616, having been rejected under subsection 30(3) of the *Patent Rules*, has subsequently been reviewed in accordance with paragraph 30(6)(*c*) of the *Patent Rules*. The recommendation of the Patent Appeal Board and the decision of the Commissioner are to refuse the application.

Agent for the Applicant:

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INTRODUCTION

[1] This recommendation concerns the review of rejected patent application number 2,841,616, which is entitled "Vehicle desirability and stocking based on live markets". The patent application is owned by vAuto, Inc. The outstanding defect indicated by the Final Action (FA) is that the claims do not define statutory subject-matter, contrary to section 2 of the *Patent Act*. The Patent Appeal Board (the Board) has reviewed the rejected application pursuant to paragraph 30(6)(*c*) of the *Patent Rules*. As explained below, our recommendation is to refuse the application.

BACKGROUND

The application

[2] Canadian patent application 2,841,616, based on a previously filed Patent Cooperation Treaty application, is considered to have a filing date of July 27, 2012 and became open to public inspection on January 31, 2013.

[3] The application relates to an inventory management solution for vehicle dealers, helping vehicle dealers to make stocking decisions and acquire inventory based on live markets.

Prosecution history

[4] On November 27, 2015, an FA was written pursuant to subsection 30(4) of the *Patent Rules*. The FA stated that the application is defective on the ground that the claims on file (i.e. claims 1 to 26) do not comply with section 2 of the *Patent Act*.

[5] In its May 27, 2016 response to the FA (RFA), the Applicant proposed an amended set of 26 claims (the proposed claims) and submitted arguments for allowance, contending that the claims are directed to statutory subject-matter.

[6] As the Examiner did not consider the application to comply with the *Patent Act*, the application was forwarded to the Board for review on October 4, 2016, pursuant to subsection 30(6) of the *Patent Rules*, along with a Summary of Reasons (SOR) maintaining the rejection of the application based on the defect indicated by the FA.

[7] With a letter dated October 11, 2016, the Board sent the Applicant a copy of the SOR and offered the Applicant the opportunity to attend an oral hearing and to make further written submissions. With its responses on January 10, 2017 and

August 22, 2017, the Applicant requested an oral hearing and submitted further arguments for allowance.

[8] This Panel was formed to review the application under paragraph 30(6)(*c*) of the *Patent Rules* and to make a recommendation to the Commissioner as to its disposition. Following our preliminary review, we sent a letter on February 15, 2018 (the PR letter) presenting our analysis and rationale as to why, based on the record before us, the subject-matter of the claims on file does not comply with section 2 of the *Patent Act*.

[9] In a February 27, 2018 telephone call, the Applicant requested that the hearing be cancelled. The Applicant indicated that no further submission would be made, instead requesting that the review proceed on the basis of the current written record.

[10] As nothing has changed in the written record since the preliminary review, we have maintained its rationale and conclusions.

ISSUE

[11] The issue to be addressed by this review is whether the claims on file define subject-matter falling within the definition of invention in section 2 of the *Patent Act*.

LEGAL PRINCIPLES AND PATENT OFFICE PRACTICE

Purposive construction

[12] In accordance with *Free World Trust v. Électro Santé*, 2000 SCC 66, essential elements are identified through a purposive construction of the claims done by considering the whole of the disclosure, including the specification and drawings (see also *Whirlpool v. Camco*, 2000 SCC 67 at paragraphs 49(f) and (g) and 52). In accordance with the *Manual of Patent Office Practice*, revised June 2015 (CIPO) at §13.05, the first step of purposive claim construction is to identify the skilled person and his or her relevant common general knowledge (CGK). The next step is to identify the problem addressed by the inventors and the solution put forth in the application. Essential elements can then be identified as those required to achieve the disclosed solution as claimed.

Statutory subject-matter

[13] 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.

[14] "Examination Practice Respecting Computer-Implemented Inventions", PN2013–03 (CIPO, March 2013) [*PN2013–03*] clarifies the Patent Office's approach to determining if a computer-related invention is statutory subject-matter.

[15] As explained in *PN2013–03*, where a computer is found to be an essential element of a construed claim, the claimed subject-matter is not a disembodied invention (e.g. mere ideas, schemes, plans or sets of rules, etc.), which would be non-statutory.

ANALYSIS

Purposive construction

The skilled person

[16] The Applicant had not disputed the FA's identification of the skilled person, and we accepted it in the PR letter: a team comprising an inventory manager with expertise in vehicle inventory and restocking, and an information technology expert with a background in computerized vehicle inventory management systems.

The CGK

[17] In the PR letter, we accepted the identification of the CGK in the FA, which had not been disputed by the Applicant:

- Methods of acquiring vehicle inventory for used and/or new automobile sales; and
- Design, implementation, operation and maintenance of computer systems, networks and software, including:
    - General purpose and special purpose computers, computing devices and user interfaces;
    - Processors and their implementation in hardware, software and firmware; and

- Computer network and internet technologies and protocols.

The problem and solution

[18] In the RFA, the Applicant disagreed with the characterization in the FA of the problem as the acquisition of vehicle inventory to best match vehicle wholesale and retail sales market data, and of the proposed solution as an inventory management solution based on this data.

[19] The RFA stated that the specification addresses a real-time problem, involving working with time-sensitive data from live markets. It also suggested that the solution relates to the acquisition and processing of consumer navigation behaviour metrics to determine vehicle desirability. The Applicant's letter of August 22, 2017 explained that although "the ultimate goal is to optimally stock vehicle lots, the actual problem addressed by the invention relates to determining vehicle desirability." Thus, it characterized the solution as "specifically directed to determining desirability using information relating to user's actions on websites."

[20] We considered the problem and solution in the PR letter and, as indicated above, adopt that reasoning here:

> As the description (paragraphs 1, 2, 8 and 9) explains, it can be difficult for vehicle dealers to fully understand current sales markets, and incorrect decisions or market analysis can lead to unprofitable overstocking of vehicle lots. To enable dealers to appropriately stock inventory, the description (paragraphs 10, 13 and 14) proposes a method to help dealers to identify optimal vehicles to stock, to determine a justifiable price to offer and to identify where to find these vehicles. The method involves calculating a "desirability score" based on market data and metrics of user behaviour on an automotive sales website.
>
> The description (e.g. paragraphs 22 to 24 and 29 to 37) discusses the computer implementation of the method only briefly and in generic terms. Given the level and nature of this detail in the description, the skilled person would understand the proposed solution not to lie in the acquisition of website user behaviour metrics, or in the real-time calculation or communication of data. This understanding would be supported by the encompassment of computing systems and computer communications networks within the CGK.
>
> We preliminarily view the problem as the determination of vehicle desirability and the solution as the calculation of certain values based on a certain data set, ultimately derived from market data and website user behaviour metrics.

The essential elements

[21] Claim 1 is directed to a system, claims 2 to 13 to methods and claims 14 to 26 to computer-readable media storing instructions. All claims involve the determination of desirability scores for vehicles available to a dealer. Claims 1 and 2 are included here as representative claims:

> 1. A system, comprising:
>
> at least one memory that stores computer-executable instructions; and
>
> at least one processor configured to access the at least one memory, wherein the at least one processor is configured to execute the computer-executable instructions to:
>
> receive one or more vehicle purchasing parameters from a dealer;
>
> receive a plurality of behavior metrics associated with a plurality of consumers, wherein the plurality of consumers collectively includes consumers of the dealer, consumers of a vehicle wholesaler online auction, and consumers of a vehicle retailer, and wherein the plurality of behavior metrics collectively includes record searches, hyperlink selections, offers, prices, and purchases made;
>
> determine, based at least in part on the one or more vehicle purchasing parameters and all of the plurality of behavior metrics, a desirability score of one or more vehicles for sale by the vehicle wholesaler online auction, wherein the desirability score comprises respective scores associated with an interest, a sales volume, a market day supply, a retail profitability, and an availability of the one or more vehicles;
>
> determine, based at least in part on the one or more vehicle purchasing parameters and all of the plurality of behavior metrics, a justifiable purchase price for the one or more vehicles for sale by the vehicle wholesaler online auction;
>
> determine a location of the one or more vehicles for sale by the vehicle wholesaler online auction;
>
> determine, based at least in part on all of the desirability score, the justifiable purchase price, and the location of the one or more vehicles for sale by the vehicle wholesaler online auction, at least a portion of the one or more vehicles for sale by the vehicle

wholesaler online auction to place on a buy list for restocking an inventory of the dealer;

determine, based at least in part on a past sales history of the dealer and a preferred dealer day supply of vehicles, a number of vehicles on the buy list to bid on;

place a bid or bid range with the vehicle wholesaler online auction for purchasing one or more of the vehicles on the buy list; and

place a listing with the vehicle retailer for selling one or more vehicles purchased from the buy list.

2. A method, comprising:

receiving, by one or more computers comprising one or more processors, one or more vehicle purchasing parameters from a dealer;

receiving, by the one or more computers, a plurality of behavior metrics associated with a plurality of consumers, wherein the plurality of consumers collectively includes consumers of the dealer, consumers of a vehicle wholesaler, and consumers of a vehicle retailer, wherein the plurality of behavior metrics collectively includes record searches, hyperlink selections, offers, prices, and purchases made;

determining, by the one or more computers and based at least in part on the one or more vehicle purchasing parameters and also based at least in part on all of the plurality of behavior metrics, a desirability score of one or more vehicles, wherein the desirability score comprises respective scores associated with an interest, a sales volume, a market day supply, a retail profitability, and an availability of the one or more vehicles;

determining, by the one or more computers and based at least in part on the one or more vehicle purchasing parameters and also based at least in part on all of the behavior metrics, a justifiable purchase price for the one or more vehicles;

determining, by the one or more computers, a location of the one or more vehicles;

determining, by the one or more computers and based at least in part on the entire desirability score, the justifiable purchase price, and the location of the one or more vehicles, at least a portion of the one or more vehicles for restocking an inventory of the dealer; and

> determining, by the one or more computers and based at least in part on a past sales history of the dealer and a preferred dealer day supply of vehicles, at least a portion of the one or more vehicles to place on a buy list.

[22] Based on the problem and solution, we generally accepted the identification in the FA of the essential elements for claims 2 to 26, only adding "hyperlink selections" to the behavior metrics in part B(II):

> A. receiving one or more vehicle purchasing parameters from a dealer;
> B. receiving a plurality of behaviour metrics associated with a plurality of consumers:
> I. wherein the plurality of consumers collectively includes consumers of the dealer, consumers of a vehicle wholesaler, and consumers of a vehicle retailer,
> II. wherein the plurality of behaviour metrics collectively includes record searches, hyperlink selections, offers, prices, and purchases made;
> C. determining a desirability score of one or more vehicles:
> I. wherein the desirability score comprises respective scores associated with an interest, a sales volume, a market day supply, a retail profitability, and an availability of the one or more vehicles, based at least in part on the data from steps A and B;
> D. determining a justifiable purchase price for the one or more vehicles, based at least in part on the data from steps A and B;
> E. determining a location of the one or more vehicles;
> F. determining at least a portion of the one or more vehicles for restocking an inventory of the dealer, based at least in part on that data from steps C, D, and E; and
> G. determining at least a portion of the one or more vehicles to place on a buy list, based at least in part on a past sales history of the dealer and a preferred dealer day supply of vehicles.

[23] The PR letter also addressed the Applicant's contention that the computer is an essential and integral part of the solution:

> Using live market data—receiving and analysing website user behaviour metrics—is essential to solving the problem of assessing vehicle desirability, submitted the Applicant. Since these user behaviour metrics are sourced from computers (with the websites) and received by computers, and since "live market data" implies time sensitive data, reasoned the Applicant, the communication and processing of data, and the inclusion of networked computers are essential. The computers cannot be removed as long as the

> determination of vehicle desirability is based on website user behaviour, and the methods cannot be carried out manually or mentally.
>
> Our preliminary view is that the skilled person, based on the problem and solution, would understand the computer components not to be essential. The solution works by the calculation of a value from a certain data set. It does not involve how to generate data from website usage, or how to communicate or compute in real time. Nor does the source of the information from which the data is derived (e.g. search histories from online auction sites and other websites) change the nature of the solution. Thus, any computer components involved in supporting this operating environment of the solution are not essential.

[24] As we noted in the PR letter:

> Claim 1 differs from the other independent claims by reciting the determination of a number of vehicles on the list to bid upon, the placement of a bid and the listing of any consequently purchased vehicles with a retailer. These latter two steps do not pertain to the problem and solution of determining the desirability of vehicles and helping dealers to decide what vehicles to acquire for inventory, and thus are not essential elements.

[25] Accordingly, the skilled person would understand claim 1 to share the same set of essential elements as the remaining claims but with the addition of a step H: determining, based at least in part on the dealer's past sales history and preferred day supply of vehicles, a number of vehicles on the buy list to bid upon.

[26] As indicated above, the steps and results of our identification of the essential elements were explained in the PR letter, in response to which the Applicant made no further submission. Therefore, we adopt this reasoning here as well.

Statutory subject-matter

[27] The Applicant contended in the RFA that by modifying the buy list with crucial information, the invention manifests a discernible effect or change as per the practical application criteria for statutory subject-matter.

[28] Having received no further submission on this matter, our consideration of this argument remains as it was set out in the PR letter:

> This modification of the buy list simply represents an output from the steps and rules comprising the solution proposed as the invention. Any physical components or steps involved in outputting data belong only to the working

> environment. The output information itself is abstract and has only intellectual meaning—it does not constitute a physical change or effect.

[29] As construed above, the essential elements are the steps and rules of determining a desirability value and certain other values for a vehicle based on a given data set for it. Such matter does not manifest a discernible effect or change of character or condition in a physical object. It merely involves the carrying out of a plan or theory of action without the production of any physical results proceeding directly from the operation of the theory or plan itself. It can also be considered as a mental process. Such matter is outside the categories of invention in section 2.

[30] Therefore, our view is that claims 1 to 26 on file do not define statutory subject-matter and thus do not comply with section 2 of the *Patent Act*.

Proposed claims

[31] As stated above, the Applicant proposed an amended set of 26 claims in the RFA. The proposed amendments consist of adding to the preambles of the independent claims that their subject matter is for determining vehicle desirability (and, in the case of claim 1, performing vehicle stocking) using live market data.

[32] As explained in the PR letter, given that these amendments would not alter the above identifications of the person skilled in the art, CGK, and problem and solution, our view is that the proposed claims have the same sets of essential elements as identified above.

[33] Accordingly, our view concerning non-statutory subject matter also applies to the proposed claims. It follows that the proposed claims are not considered a necessary specific amendment under subsection 30(6.3) of the *Patent Rules*.

RECOMMENDATION OF THE BOARD

[34] In view of the above, the Panel recommends that the application be refused on the basis that claims 1 to 26 define non-statutory subject matter and thus do not comply with section 2 of the *Patent Act*.

Leigh Matheson	Marcel Brisebois	Andrew Strong
Member	Member	Member

DECISION OF THE COMMISSIONER

[35] I concur with the findings of the Board and its recommendation to refuse the application. The claims on file do not comply with section 2 of the *Patent Act*.

[36] Accordingly, I refuse to grant a patent for this application. Under section 41 of the *Patent Act*, the Applicant has six months to appeal my decision to the Federal Court of Canada.

Johanne Bélisle
Commissioner of Patents
Dated at Gatineau, Quebec,
this 4th day of May, 2018