

Commissioner's Decision No. 1463
Décision du commissaire n° 1463

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

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

Application No. 2, 799,325
Demande n° 2 799 325

IN THE CANADIAN PATENT OFFICE

DECISION OF THE COMMISSIONER OF PATENTS

Patent application number 2799325, 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.

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INTRODUCTION

- [1] This recommendation concerns the review of rejected patent application number 2799325, which is entitled “Creation, redemption, and accounting in a virtual currency system”. The patent application is owned by Facebook Inc. Although the Final Action (FA) originally indicated two outstanding defects, the rejection of the application was ultimately maintained solely on the ground 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 2799325, based on a previously filed Patent Cooperation Treaty application, is considered to have a filing date of May 10, 2011, and was laid open to public inspection on January 26, 2012.
- [3] The application relates to the creation, redemption and tracking of credits in a virtual currency system.

Prosecution history

- [4] On March 11, 2016, an FA was written pursuant to subsection 30(4) of the *Patent Rules*. The FA identified the following defects in the application:
- claims 1 to 34 (i.e. all claims on file) encompass subject matter outside the definition of invention and thus do not comply with section 2 of the *Patent Act*; and
 - the claims on file define obvious subject matter and thus do not comply with section 28.3 of the *Patent Act*.
- [5] In its September 12, 2016 response to the FA, the Applicant submitted arguments for allowance and proposed an amended set of 66 claims (the proposed claim set) and corresponding amendments to the description. The proposed claims are generally similar to the claims on file but explicitly state that previously recited accounts stored for participants are stored on computer-readable media. The Examiner did not consider the amendments to remedy the subject matter defect but

to instead introduce new matter. In addition, although the Applicant's arguments persuaded the Examiner that the claims on file do not define obvious subject-matter, the Examiner still considered the subject matter to be non-statutory and so did not withdraw the rejection.

- [6] Therefore, pursuant to subsection 30(6) of the *Patent Rules*, the application was forwarded to the Board for review, along with the Examiner's Summary of Reasons. On November 29, 2016, the Board forwarded a copy of the Summary of Reasons, with a letter acknowledging the rejection, to the Applicant.
- [7] The Applicant responded on February 27, 2017, requesting the Board to proceed with the review.
- [8] A Panel was formed to review the rejected 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 June 6, 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 (as well as of the proposed claim set) does not comply with section 2 of the *Patent Act*. The letter also invited the Applicant to make further submissions if it wished to do so, and to indicate whether it wished to have a hearing.
- [9] The Applicant responded to the PR letter on July 4, 2018 (RPR) by resubmitting the proposed claim set and making further written arguments for allowance.

ISSUE

- [10] 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

- [11] In accordance with *Free World Trust v Électro Santé Inc*, 2000 SCC 66 [*Free World Trust*], 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 Corp v Camco Inc*, 2000 SCC 67 at paras 49(f) and (g) and 52). In accordance with the *Manual of Patent Office Practice*, revised April 2018 (CIPO) at §13.05 [*MOPOP*], 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

[12] 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.

[13] “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.

[14] 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. a mere idea, scheme, plan or set of rules, etc.), which would be non-statutory.

ANALYSIS

Purposive construction

The skilled person

[15] In the PR letter, we identified the notional skilled person as a person or team skilled in the fields of virtual currency and general-purpose computing. The Applicant did not dispute this identification and we adopt it here.

The CGK

[16] Based on the context of the invention and the background information of the description (paragraphs 1 to 5 and 17), we identified the following concepts as CGK in the PR letter:

- virtual currency systems for the exchange of virtual credits for goods, services and real currencies;
- the management of non-legal tender and alternative currency systems using computer systems or other means and methods; and

- general-purpose computer systems and appropriate programming techniques.

[17] The Applicant, in the RPR, generally agreed with this identification of the CGK and we adopt it here.

The problem and solution

[18] As the description (paragraphs 2 to 5) explains, some virtual currency systems permit the exchange of virtual credits for real currency, but conventionally carry out the creation and the redemption of the virtual credits based on the same exchange rate. According to the description, this makes it difficult to distinguish among or enable different types of credits. The description says this limitation also prevents discounting schemes wherein a vendor may permit a purchase of a good or service for an amount of credits having a redeemable value lower than the actual value of the good or service. These limitations appear to originate in the rules employed rather than in the computer systems employed, especially given the fact that the CGK includes the computerized management of virtual currency systems permitting the creation, exchange and redemption of virtual credits.

[19] Accordingly, we presented our preliminary view in the PR letter that the problems are the inability to create and redeem virtual credits at different exchange rates and the difficulty in enabling or distinguishing among different types of virtual credits, both problems being due to the rules conventionally employed with such systems.

[20] In the RPR, the Applicant generally agreed with this identification of the problems but added that since all virtual credits within a virtual economy are created and redeemed at the same exchange rate with real currency,

it is difficult to distinguish among or otherwise enable different types of credits in conventional systems, meaning conventional virtual economies fail to provide adequate accounting mechanisms that enable higher level features in a virtual economy (see paragraphs [0001] to [0005] of the subject application).

[21] In our view, these issues are rooted in the problems we indicated. Therefore, we consider the problems to be solved to be those identified in the PR letter.

[22] As we noted in the PR letter, the description (paragraphs 7, 18 and 19) proposes as a solution to track information regarding the credits: when a set or bucket of one or more credits is created, an associated internal value (the exchange rate at which the credits were purchased), face value and external value (the exchange rate at which the credits may be redeemed) are recorded. Permitting the creation of buckets of

credits with different attributes and recording the associated information would address the above-identified limitations with the rules conventionally used. Our preliminary view was that given the nature of the detail in the application regarding the architecture of the computer system for implementing this proposal (figure 2; paragraphs 25 to 32 and 77 to 80) as compared with that regarding the rules and recorded information themselves (figures 3 to 7; paragraphs 33 to 64), or the example transactions that may take place according to the rules (paragraphs 55 to 75), the skilled person would not understand the solution to lie in the computer implementation.

- [23] In the RPR, the Applicant agreed to the extent that the solution is “a novel method that associates virtual credits with an internal value, an external value and a face value [and that] allows virtual currency systems (or virtual economies) to treat each virtual credit differently”, but submitted that the solution was the computer implementation of this method:

The solution provided by Applicant’s claimed invention clearly lies in the computer implementation thereof. This is evidenced by the fact that the detailed description outlines details to enable one of ordinary skill in the art to program computers of a virtual currency system to put Applicant’s claimed invention into use. Once the computers are programmed according to details outlined in the detailed description, the result is a novel method that associates virtual credits with an internal value, an external value and a face value. This allows virtual currency systems to treat each virtual credit differently.

- [24] The computer implementation of the disclosed rules and scheme is not enabled by the description, however, but by the CGK. Virtual currency systems, general-purpose computer systems and appropriate programming techniques are within the CGK, as also noted in the RPR. The application does not profess to teach an invention of which the computer implementation would require more from the skilled person than their CGK would provide. If it did, the application would be insufficient to enable the claimed invention.
- [25] As explained in *MOPOP* at §13.05.02*b*, the scope of the CGK guides the identification of the problem and the solution—the skilled person reads a specification in the expectation that it sets out something more beyond the commonly known solutions to commonly known problems.
- [26] Therefore, we view the solution as the rules or scheme governing the creation and tracking of buckets of one or more credits, where each bucket has an associated internal value, face value and external value. Although this scheme pertains to the

tracking of credits in a virtual currency system, the solution is the scheme itself and does not extend to the system being used while the scheme is followed.

The essential elements

[27] Independent claims 1 and 28 on file are directed to methods. All claims on file refer to the creation of a number of credits of a virtual currency and the recording of an internal value, an external value and a face value associated with the number of credits.

[28] For convenience, independent claim 1 is provided below as a representative of the claims on file.

Claim 1. A method comprising:

storing an account for each of a plurality of participants of a virtual economy;

receiving a plurality of requests to create new credits of a virtual currency;

for each request to create new credits,

recording, by processor, in a data store a number of credits created and a set of attributes of the credits, wherein the attributes include an internal value representing a rate of real currency received per credit created, an external value representing a rate of real currency to be provided per credit upon redemption, and a face value representing the value presented to the participants in the virtual economy,

assigning the created credits to one or more accounts of participants, and

associating the credits with their attributes;

receiving a plurality of requests to transfer credits from an account of a transferring participant to an account of a receiving participant;

for each request to transfer credits,

deducting an amount of credits from the transferring participant,

adding the amount of credits to the receiving participant, and

associating the credits added to the receiving participant with their attributes;

receiving a plurality of requests to redeem a number of credits from the account of a participant; and

for each request to redeem credits from the account of a participant,

deducting, by a processor, the redeemed credits from the account of the participant, and

providing an amount of real currency to the participant, the amount of real currency provided determined based on the external value of the redeemed credits.

- [29] The PR letter expressed our preliminary view that the essential elements of the claims on file do not include any computer elements.
- [30] The Applicant disagreed, submitting in the RPR that the proper test for essentiality was not applied. Referring to *Free World Trust*, the Applicant contended that the computer elements must be essential because the application does not indicate that the computer is intended to be non-essential and because virtual credits and virtual credit systems would simply not exist without the capabilities provided by the computer elements.
- [31] As explained in *MOPOP* at §13.05.02c, not every element having a material effect on the operation of a given practical embodiment is essential to the solution; some recited elements define the context or environment of the embodiment but do not actually change the nature of the solution. Accordingly, purposive construction must consider which elements are required for the proposed solution to achieve its result.
- [32] The problem here is not one of computer implementation of a virtual currency system. The solution works by the rules of the scheme for creating and accounting for the buckets of virtual credits; it does not lie in the computer elements. Therefore, our view is that while these details provide the contextual environment of the invention, they are not essential to the solution provided by the application.
- [33] We consider the wording differences between the dependent claims and the independent claims from which they stem to simply reflect different embodiments of the same set of essential elements. Thus, we consider the essential elements for claims 1 to 34 on file to be:

- maintaining an account for each of a plurality of participants of a virtual economy;
- for each request to create new credits of a virtual currency:
 - recording a number of credits created and a set of attributes of the credits, wherein the attributes include an internal value representing a rate of real currency received per credit created, an external value representing a rate of real currency to be provided per credit upon redemption, and a face value representing the value presented to the participants in the virtual economy;
 - assigning the created credits to one or more accounts of participants; and
 - associating the credits with their attributes;
- for each request to transfer credits:
 - deducting an amount of credits from the transferring participant;
 - adding the amount of credits to the receiving participant; and
 - associating the credits added to the receiving participant with their attributes; and
- for each request to redeem credits from the account of a participant:
 - deducting the redeemed credits from the account of the participant; and
 - providing an amount of real currency to the participant, the amount of real currency provided determined based on the external value of the redeemed credits.

Statutory subject matter

- [34] As construed above, the essential elements here are the rules of the scheme for creating and accounting for the buckets of virtual credits—a computer is not among the essential elements. As stated in the PR letter, 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. Such matter is outside the categories of invention in section 2.
- [35] Referring to *Canada (AG) v Amazon.com*, 2011 FCA 328 [*Amazon.com*], the Applicant submitted in the RPR that even without computer elements, the above set of essential elements defines patentable subject matter: “a novel method that has

practical application within a virtual currency system.” The set of essential elements “goes far beyond a mere scheme or abstract idea”, contended the RPR, because implementing them in a virtual currency system permits vendors to better target offers to participants, and central managers to subsidize the cost of seeding credits.

- [36] As stated above, the rules of the scheme defined by the essential elements do not manifest a discernible effect or change of character or condition in a physical object—they are abstract. And as explained in *Amazon.com*:

[61] However, it does not necessarily follow, as Justice Phelan seemed to suggest, that a business method that is not itself patentable subject matter because it is an abstract idea becomes patentable subject matter merely because it has a practical embodiment or a practical application. In my view, this cannot be a distinguishing test, because it is axiomatic that a business method always has or is intended to have a practical application. And in this case, the difficulty with a bare “practical application” test for distinguishing patentable from unpatentable business methods is highlighted because the particular business method—itsself an abstract idea—is realized by programming it into the computer by means of a formula or algorithm, which is also an abstract idea.

[62] *Schlumberger* exemplifies an unsuccessful attempt to patent a method of collecting, recording and analyzing seismic data using a computer programmed according to a mathematical formula. That use of the computer was a practical application, and the resulting information was useful. But the patent application failed for want of patentable subject matter because the Court concluded that the only novel aspect of the claimed invention was the mathematical formula which, as a “mere scientific principle or abstract theorem”, cannot be the subject of a patent because of the prohibition in subsection 27(8).

- [37] It is our view that claims 1 to 34 on file do not define statutory subject matter and thus do not comply with section 2 of the *Patent Act*.

Proposed claims

- [38] As stated above, the Applicant proposed an amended set of 66 claims. The proposed amendment consists of making the independent claims specify that the accounts are stored on a computer-readable medium, the deletion of several dependent claims and the addition of claims reciting similar methods to the others but with additional interactions according to the rules.

- [39] Given that these proposed amendments would not change the above identifications of the skilled person, CGK, problem and solution, our view is that the proposed claims would have the same sets of essential elements as identified above.
- [40] Accordingly, our view concerning non-statutory subject matter also applies to the proposed claims. It follows that the proposed claim set is not considered a necessary specific amendment under subsection 30(6.3) of the *Patent Rules*, regardless of whether or not it would introduce new matter.

RECOMMENDATION OF THE BOARD

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

Leigh Matheson
Member

Marcel Brisebois
Member

Stephen MacNeil
Member

DECISION OF THE COMMISSIONER

- [42] 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*.
- [43] 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 20th day of September , 2018