

Commissioner's Decision # 1380

Décision du Commissaire # 1380

TOPIC: O -00

SUJECT: O -00

Application No : 2,426,304

Demande n^o : 2,426,304

IN THE CANADIAN PATENT OFFICE

DECISION OF THE COMMISSIONER OF PATENTS

Patent application number 2,426,304, having been rejected under subsection 30(3) of the *Patent Rules*, has consequently been reviewed in accordance with paragraph 30(6)(c) of the *Patent Rules* by the Patent Appeal Board and the Commissioner of Patents. The recommendation of the Board and the ruling of the Commissioner follow.

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Introduction

- [1] Patent application number 2,426,304 was filed on October 23, 2001 and is entitled “COMPUTER SYSTEM FOR CALCULATING COSTS FOR LODGING PCT NATIONAL PHASE APPLICATIONS IN SELECTABLE COUNTRIES.” The Applicant is INOVIA HOLDINGS PTY LTD and the inventor is Justin Ryan Simpson.
- [2] The application was rejected in a Final Action dated November 22, 2012 because all of the claims were considered to be anticipated and obvious, and because the claims were considered to overlap with those of a divisional patent application also owned by the Applicant. After a review of the Applicant’s response to the Final Action, the application was still considered to be non-compliant with the *Patent Act* and *Patent Rules*. The matter was therefore referred to the Patent Appeal Board on June 21, 2013.

Background

The invention

- [3] The Patent Cooperation Treaty (PCT) is an international treaty that provides a unified procedure for filing patent applications in each of its member countries. PCT filing procedures and fee schedules are made available through the World Intellectual Property Organization (WIPO) and the national patent offices of PCT member countries.
- [4] A patent application filed through the PCT must undergo two phases before a patent can be issued in a member country: an international phase co-ordinated through WIPO; and a subsequent national phase conducted in the patent office of each member country in which an applicant may wish to seek protection. National phase entry decisions are typically overseen by the applicant’s instructing patent attorney, or a patent agent, who directs local attorneys practising before national patent offices.
- [5] Decisions concerning which countries to enter can be complex. An important consideration is the calculation of national “lodgment costs”, or fees, that are payable

upon national entry in each country. Lodgment costs vary and are calculated based on fee schedules prescribed by each member country. Total costs include professional service fees, national phase government filing fees and any additional fees based on the number of pages and claims in the application. Such costs are typically provided to the instructing attorney by local attorneys on a country-by-country basis and are calculated manually by each local attorney.

- [6] The subject application claims a computer-implemented system for automatically calculating national phase lodgment costs that would be payable in respect of a PCT application upon its national phase entry into two or more member countries. The system allows for the input of a PCT application identifier (e.g., the WIPO publication number) and the identities of at least two countries. The system then automatically gathers the required data (the national phase entry fee for each country and the application's page and claim numbers) from a PCT application database and then returns cost calculations directly to an instructing attorney.
- [7] The specification describes certain embodiments in which the claimed invention operates as part of a larger web-based system that offers an instructing attorney a suite of online national phase entry services. In addition to calculating national phase lodgment costs, the larger system is capable of performing additional functions such as sending messages to instructing attorneys and/or national patent offices, and automatically effecting national phase entry of an application. A "national phase lodgment interface" is presented to an instructing attorney via the internet. A specific section of the interface allows an instructing attorney to engage the claimed invention and have automatically displayed the lodgment cost details that would be payable upon national entry. Another section of the interface then allows the instructing attorney to automatically effect national entry of the application, if desired.

Case history

[8] A chronology of key events is set out below:

<u>Date</u>	<u>Event</u>	<u>Comments</u>
October 23, 2001	Application filed	
November 22, 2012	Final Action issued	The grounds for rejection were anticipation, obviousness and double patenting.
February 22, 2013	Response to Final Action received	New claims (the claims currently on file) were submitted.
June 21, 2013	Application transferred to Patent Appeal Board (PAB) with a Summary of Reasons (SOR)	The SOR maintained the grounds for rejection outlined in the Final Action and identified 4 new defects arising from the response to the Final Action: new matter, lack of support and lack of description.
November 13, 2013	Applicant's first written submission received	The submission included an Auxiliary Amendment ("proposed amendment") to the description, abstract and claims ("the proposed claims").
April 11, 2014	PAB Initial Review letter issued	The Board invited the Applicant to address some initial observations and to clarify certain points.
June 3, 2014	Applicant's second written submission received	
June 18, 2014	Hearing	

Legal provisions

[9] The legal provisions pertinent to the present review are set out below.

Final Action and review process

[10] Subsection 30(3) of the *Patent Rules* provides that an examiner may reject an application if there are reasonable grounds to believe that the application does not comply with the Act or Rules:

Where an applicant has replied in good faith to a requisition referred to in subsection (2) within the time provided but the examiner has reasonable grounds to believe that the application still does not comply with the Act or these Rules in respect of one or more of the defects referred to in the requisition and that the applicant will not amend the application to comply with the Act and these Rules, the examiner may reject the application.

[11] Subsection 30(4) of the *Patent Rules* clarifies the procedure by which the examiner notifies an applicant, through the issuance of a “Final Action”, of the reasons for having rejected an application:

Where an examiner rejects an application, the notice shall bear the notation “Final Action” or “Décision finale”, shall indicate the outstanding defects and shall requisition the applicant to amend the application in order to comply with the Act and these Rules or to provide arguments as to why the application does comply, within the six-month period after the requisition is made or, except in respect of Part V, within any shorter period established by the Commissioner in accordance with paragraph 73(1)(a) of the Act.

[12] Subsection 30(6) of the *Patent Rules* was in force at the time the Final Action was written and provides that if the Final Action is not withdrawn, the Commissioner of Patents will review the rejected application, including any claim amendments made in response to the Final Action, and give the applicant an opportunity to be heard:

Where the rejection is not withdrawn pursuant to subsection (5), the rejection shall be reviewed by the Commissioner and the applicant shall be given an opportunity to be heard.

[13] The Patent Appeal Board conducts a review of the rejected application, conducts a hearing, and provides a written recommendation to the Commissioner of Patents. This review is based on the claims on file that were submitted in response to the Final Action.

[14] In cases where the application does not comply with the Act or Rules, subsection 30(6.3) of the *Patent Rules* (currently in force) permits the Commissioner of Patents to notify the applicant that specific amendments are necessary for compliance:

If, after review of a rejected application, the Commissioner determines that the application does not comply with the Act or these Rules, but that specific amendments are necessary, the Commissioner shall notify the applicant that the specific amendments have to be made within three months after the date of the notice. If the applicant complies with that notice, the Commissioner shall notify the applicant that the application has been found allowable and shall requisition the payment of the applicable final fee set out in paragraph 6(a) or (b) of Schedule II within the six-month period after the date of the notice of allowance.

[15] The Patent Appeal Board may consider proposed claims volunteered by the applicant as the basis for a specific amendment that the Commissioner may require. In the present case, the Applicant provided such proposed claims in the first written submission of November 13, 2013.

Principles of claim construction

[16] Following the Federal Court of Appeal decision in *Canada (Attorney General) v Amazon.com Inc*, 2011 FCA 328 [*Amazon*], the Office released two examination memos which clarified examination practice with respect to purposive construction (PN2013-02) and computer-implemented inventions (PN2013-03), in light of the relevant Canadian jurisprudence. Both of these memos were referred to in the SOR dated June 19, 2013 and our initial review letter of April 11, 2014.

[17] Purposive construction of a patent application seeks to determine the meaning of terms used in the claims and which elements are essential to the invention: *Free World Trust v. Electro Santé Inc*, 2000 SCC 66 [*Free World Trust*]. It is performed through the eyes of the person skilled in the art, considering the specification as a whole and the common general knowledge (CGK), including an understanding of the problem and solution addressed by the application. As noted in PN2013-02, one should recognize “that a patentable invention is an inventive solution to a practical problem” and “that an invention must be disclosed (and ultimately claimed) so as to provide the person skilled in the art with an operable solution.” Once identified, the solution then informs the determination of which elements or features are essential. While purposive construction is anchored in the language of the claims, the analysis cannot be based solely on a literal reading of the claims (*Amazon*, paragraph 43).

Obviousness

[18] Section 28.3 of the *Patent Act* provides that the subject-matter defined by a claim must be subject-matter that would not have been obvious on the claim date to a person skilled in the art or science to which it pertains, having regard to certain information:

The subject-matter defined by a claim in an application for a patent in Canada must be subject-matter that would not have been obvious on the claim date to a person skilled in the art or science to which it pertains, having regard to

- (a) information disclosed more than one year before the filing date by the applicant, or by a person who obtained knowledge, directly or indirectly, from the applicant in such a manner that the information became available to the public in Canada or elsewhere; and
- (b) information disclosed before the claim date by a person not mentioned in paragraph (a) in such a manner that the information became available to the public in Canada or elsewhere.

[19] A four-step approach for assessing obviousness is set out in *Apotex Inc v Sanofi-Synthelabo Canada Inc*, 2008 SCC 61 [*Sanofi*]:

- (1) (a) Identify the notional “person skilled in the art”;
(b) Identify the relevant common general knowledge of that person;
- (2) Identify the inventive concept of the claim in question or if that cannot readily be done, construe it;
- (3) Identify what, if any, differences exist between the matter cited as forming part of the “state of the art” and the inventive concept of the claim or the claim as construed;
- (4) Viewed without any knowledge of the alleged invention as claimed, do those differences constitute steps which would have been obvious to the person skilled in the art or do they require any degree of invention?

Issues

[20] Three defects were identified in the Final Action. As indicated in the SOR, four new defects were subsequently identified when the Applicant’s response to the Final Action was considered. In this case, the dispositive issue is the question of obviousness. In view of our conclusion on that issue, we need not address the other defects.

[21] The obviousness assessment must first address the claims presently on file. Per subsection 30(6.3) of the *Patent Rules*, now in force, the proposed claims submitted on November 13, 2013 may be assessed if the claims on file are considered to be obvious and therefore not compliant with section 28.3 of the Act. If the proposed claims are considered compliant, the application can proceed to allowance provided, in accordance with subsection 30(6.3) of the Rules, that the Commissioner notifies the Applicant that the amendment is required for compliance with the Act and Rules and the Applicant makes the amendment within a three month time limit.

[22] The analysis begins with a purposive construction of the claims in light of the Applicant’s submissions and arguments presented at the hearing.

Analysis

Claim construction

The person skilled in the art

[23] The Final Action characterizes the skilled person as follows:

a team comprising not only information technology professionals, but also patent agents or other legal professionals familiar with patent filing practices.

[24] In its submission of June 3, 2014, the Applicant disagreed with the characterization of the skilled person as a team because it is “problematical and may lead to unwarranted conclusions” when conducting the obviousness analysis under the *Sanofi* approach. The Applicant argued that “the identification of the [person of ordinary skill in the art] as a plurality of individuals is problematical inasmuch as it is entirely possible for a plurality of individuals collectively to possess knowledge of all of the separate elements of a claimed combination, but for none of them individually to come directly and without difficulty to the combination itself.” The Applicant did not provide any supporting reference to the jurisprudence.

[25] The Courts have noted that the skilled person may be a group or team: see *Merck & Co v Pharmascience Inc*, 2010 FC 510 at paragraphs 32-39; and *Bayer Aktiengesellschaft v Apotex Inc* (1995), 60 CPR (3d) 58 at 79.

[26] The Applicant urged reconsideration of the nature of the skilled person and, in the alternative, proposed that the skilled person be identified “as an information technology developer or coordinator in the field of patent agency systems – in other words, a person who, as at the claim date, routinely selected, provided, and/or developed systems for use by patent agency professionals.”

[27] In our view, the skilled person proposed by the Applicant, namely an information technology developer, would still need to work collaboratively with a patent professional in order to develop the type of computer system required, i.e., they would act as a team.

In sum, we are of the view that the skilled person is therefore:

a team comprising an information technology professional to select, provide and develop systems for use in filing patents, and a patent agent or other legal professional familiar with patent filing practices and processes.

Common general knowledge (CGK)

[28] The Initial Review letter of April 11, 2014 identified the following points as CGK:

- (a) knowledge of typical activities performed by instructing attorneys and local attorneys in the filing of national phase PCT applications, and of some of the involved difficulties;
- (b) general knowledge of and ability to search and read patents;
- (c) knowledge of the advantages which can be seized by using computers, modern communications infrastructure, modern electronics, etc. to automate or otherwise facilitate many of the steps in administrative procedures;
- (d) knowledge that computers are useful for performing various calculations and that such systems exist and provide certain advantages;
- (e) knowledge of how to calculate national phase lodgment costs and fees based in part on the number of pages and claims, and how to give instructions to file national phase applications in selected countries; and
- (f) knowledge of how to find and use formulae, rules or tables of fees for attorneys or patent offices.

[29] With respect to the knowledge identified in points (c) and (d), the Initial Review letter pointed out that modern communications infrastructure existed before the claim date and included networked computers (e.g. Internet) with access to computer readable records or media. The Initial Review letter cited the Encyclopedia of Networking (Electronic Edition), Tom Sheldon, 1998 (for example, see pages 78, 152-158, 168-169, 176, 238-241, 280-281, 286-288, 502-504, 675-676, 1069) [Sheldon].

[30] In the written submissions of June 3, 2014, the Applicant suggested that points (c) and (d) were inaccurate. The Applicant did not address *Sheldon* and instead pointed out that points (c) and (d) should be limited to only general knowledge, rather than knowledge that is specific or particular to the present circumstances:

the CGK would not include, absent a specific teaching, knowledge of any *specific* advantage produced by a *particular* use of a computer in a *particular* context. In other words, while it is conceded that the CGK might include knowledge *that* use of computers generally produces some advantage, absent a specific teaching it does not include knowledge of *what* advantage is produced by the *particular* use of a computer in a *particular* context. [emphasis in original]

[31] We agree that in some instances the use of a computer can provide an advantage which would not be part of the knowledge identified in (c) and (d). However, at this point it is important to remember that it is the common *general* knowledge that must be established. In that regard, we see nothing inconsistent between points (c) and (d) and the Applicant's submissions. We hold the view that the skilled person would understand that computers were generally known to be capable of making calculations and that computerization of such operations can be advantageous in terms of efficiency, speed and accuracy. That is not to say, however, that consideration of advantages that might accrue from a specific teaching or a particular context can be ignored when addressing the question of obviousness.

[32] The Applicant's remaining submission as to CGK cautioned against an "unwarranted deduction from general knowledge of the functions and advantages of computer technology." The Applicant did not provide any specifics about any knowledge or a particular computer technology that would not be CGK and therefore we do not agree with the Applicant's position with respect to points (c) and (d), and we are of the view that these are CGK.

[33] With respect to the knowledge identified in (a), (b), (e), and (f), our Initial Review letter noted that this knowledge relates to the fact that the PCT is an international treaty and that the roles of WIPO and member countries in providing this knowledge are well

known to patent professionals, i.e., it is well known that WIPO and member countries are responsible for establishing filing procedures, establishing lodgment cost fee schedules and for publishing associated literature.

[34] Accordingly, we are of the view that the knowledge identified in (a) to (f) of paragraph [28] is CGK.

The problem and solution addressed by the invention

[35] Having considered the Applicant's submissions we would state the problem faced by the inventors as follows:

The problem faced by the inventors is how to improve upon the conventional manual process for calculating national phase lodgment costs for PCT applications in a plurality of countries.

[36] This problem is related to the fact that the current approach to calculating national phase lodgement costs is inconvenient, time consuming and leads to errors in data entry, as indicated in the written submissions of June 3, 2014. We understand from the oral submissions made at the hearing that the Applicant takes issue with considering these disadvantages as part of the problem statement. Even if not explicitly included as part of the problem statement, in our opinion the disadvantages would be informative to the person skilled in the art when assessing the solution proposed by the claimed invention.

[37] The Applicant also submitted that “the desirable result produced by the claimed invention includes automation of one aspect of lodging a PCT national phase application with a patent office – namely calculating national phase lodgment costs of a PCT application in a plurality of selectable countries – which thus enables automation of the process as a whole.” We agree. Accordingly, the skilled person reading the specification would understand that it provides the following solution:

A computer system for automating the essentially manual conventional process of calculating national phase lodgment costs for the eventual filing of applications.

Claim 1 and its essential elements

[38] The claims on file were submitted in response to the Final Action. Claim 1 is illustrative of the invention:

1. A computer system for calculating national phase lodgment costs of a PCT application in a plurality of selectable countries,

wherein the computer system has a central processing unit and a memory,

characterized in that the memory has program instructions stored thereon that are executable by the central processing unit to, upon receipt of a PCT application identifier and a first and a second country selection:

(i) automatically determine a number of pages and number of claims of a patent specification corresponding to the PCT application identifier; and

(ii) automatically calculate, with reference to said number of pages and said number of claims, national phase lodgment costs in said first and second selected countries.

[39] In the letter of June 3, 2014 (page 4) the Applicant's submission is that:

“the claimed invention includes automation of one aspect of lodging a PCT national phase application with a patent office — namely calculating national phase lodgment costs of a PCT application in a plurality of selectable countries — which thus enables automation of the process as a whole.”

We understand the Applicant does not consider the invention to lie in the PCT calculations and rules. However, the skilled person would understand that the central processing unit (a computer) and the memory appear to operate as they are designed to operate, in particular, their operations are analogous to a general purpose computer which performs calculations and processes data. On this basis, the Final Action concludes that these components are essential elements; noting that “If the calculations themselves (as opposed to the system for automating the calculations) had been considered the essential elements, however, the invention would have been both non-statutory and obvious.”

- [40] We agree with the Examiner’s suggestion that there could be a question with respect to statutory subject matter, although this defect has not been formally raised in the Final Action. While the central processing unit (a computer) and the memory provide a convenient supporting architecture (technical environment) to automate the calculation of national phase lodgement costs, these components may not have a material effect on the PCT calculations and processes, if these calculations were to be considered as the solution. In that scenario, the computer components claimed would have been non-essential features for calculating PCT national phase lodgment costs, and the instant application would then be similar to the situation in *Schlumberger Canada Ltd. v. Canada (Commissioner of Patents)*, [1982] 1 F.C. 845 (C.A.) [*Schlumberger*]. *Schlumberger* can be characterized as a case in which, what on its face was a claim to a computerized method of making certain calculations was nevertheless identified as being a claim to only an unpatentable abstract principle and mental process. As explained in *Amazon* (para. 69), “The claims in *Schlumberger* were not saved by the fact that they contemplated the use of a physical tool, a computer, to give the novel mathematical formula a practical application.”
- [41] As mentioned in paragraph [17], construction of the claim requires that the skilled person read the claim bearing in mind the problem faced by the inventors and the solution proposed. When that is done, it is apparent that not only does the instant application fail to disclose any problem or solution with respect to the PCT calculations themselves, there is also no plausible computer problem solved by the instant application. What is disclosed, rather, is the automation of PCT calculations as the potential invention, and therefore we will proceed by considering the computer elements as essential features — as explained in the Final Action.
- [42] The Final Action indicates that “the essential elements comprise a computer programmed to accept inputs and perform calculations on certain data.” The skilled person would understand that the computer requires programming that would enable the computer to carry out the calculation; otherwise the data flow necessary to achieve automation of the solution would be impossible. In our view, the skilled person would construe the expressions “program instructions”, “automatically determine” and “automatically calculate” as including the extraction (reading) of information from a database among the

technical operations required to carry out the calculation. Thus, in order for the claimed system to operate, it is essential that there are technical operations involving certain databases so that upon receiving a proper identifier, the correct data is extracted and the calculations executed.

- [43] The Final Action also indicates that it is not essential that the computer system specifically calculate national phase lodgment costs or fees, or determine the number of pages and claims. The Applicant disputed this, submitting that the Final Action is “defective at least inasmuch as the identified essential elements do not include the nature of the information used by the defined computer, which is submitted to be essential” and that the “desirable result is not obtained if the nature of the information used by the defined computer is changed.”
- [44] It is not essential for the claimed computer system to receive a “PCT” identifier or country selection in order to carry out a calculation — the “PCT” information carried by the data is significant to the user of the computer system, but it does not affect the underlying operation of the computer system. The computer must be enabled to receive a first identifier and to extract corresponding information from the database using that first identifier; to receive second and third data inputs and to extract additional variables from the databases; and to execute the necessary mathematical calculations. When the correct data is input (identifier, country selection) the essential elements of the system cooperate to perform the required calculations; but when programmed to do so, the computer neither recognizes the data as “PCT” data nor is its operation affected in that regard. As we noted above, there are, however, essential technical operations involving the databases, notably, the program instructions must access them in the correct sequence.
- [45] The features in claim 1 which are essential for automating the manual conventional process for calculating PCT national phase lodgment costs are: a computer with a memory; and programming instructions used to configure the computer to carry out the following functions: accept three inputs, to extract information from certain databases, and to perform calculations using the extracted data.
- [46] After reading the description, the skilled person would understand that the dependent claims solve narrower problems that relate to the need to provide a user with additional

capabilities such as those discussed above at paragraph [7] in relation to the web-based system that offers an attorney a suite of online national phase entry services. The web-based system is capable of performing additional functions such as sending messages to attorneys and/or national patent offices, and automatically effecting national phase entry of an application. Thus, the skilled person reading claims 2-11 would appreciate the following additional essential features of the claimed invention, in that the computer is programmed:

- to send a message or information over a network — claims 4-11;
- to display data on a user interface — claims 7-11;
- to display data on an internet accessible user interface — claims 9-11.

Conclusion — claims 1 to 11 and their essential elements

[47] The claimed invention has the following combination of essential features:

- a computer with a memory; and programming instructions used to configure the computer to accept three inputs, to extract information from particular databases, and to perform calculations using the extracted data; and
- programming for sending a message or information over a network, displaying data on a user interface, and displaying data on an internet accessible user interface.

Obviousness

Step 1: Notional "person skilled in the art" and the relevant common general knowledge of that person

[48] This first step has been established, above, at paragraphs [27] and [34].

Step 2: Inventive concept

[49] The Final Action relied upon the purposively construed claims as an alternative to defining their inventive concepts. The Applicant did not disagree with this approach, and pointed out that a purposive construction of the claims would define the inventive

concept. We note that the Applicant presented arguments pointing to the PCT national phase lodgment costs and data as being part of the purposively construed claims and the inventive concept. Per the construction provided above, the process being automated has been considered and the essential elements have been identified.

[50] We proceed on the basis that if a dependent claim is considered obvious, then it follows that its parent claim is as well. Since claim 11 includes all of the essential elements of claims 1-10, the inventive concept can be defined in relation to all of these elements, as follows:

a computer for automating a conventional manual process, with a memory, and programming instructions to configure the computer to accept three inputs, to extract information from particular databases, and to perform calculations using the extracted data, and programming instructions for sending a message or information over a network, displaying data on a user interface, and displaying data on an internet accessible user interface.

Step 3: Differences between the "state of the art" and the inventive concept

[51] The Final Action considers the claimed invention to be obvious in view of the following prior art:

Canadian patent documents

1 299 294 21 April 1992 Iwai *et al.*

2 370 021 12 October 2000 Germeraad *et al.*

United States patent

5 960 412 28 September 1999 Tackbary *et al.*

[52] Germeraad *et al.* does not disclose any information that bridges the differences between Iwai *et al.* and Tackbary *et al.* and the inventive concept. Accordingly, it is of no additional value to the analysis and will not be considered further.

Iwai et al.

- [53] *Iwai et al.* teach a computerized system for managing the preparation and prosecution of applications for protection of industrial property (patent) rights in various countries. The system includes a data memory which stores rule data for controlling input, output and internal operation of the system. The rule data includes information concerning required actions at each step of prosecution of applications in each country when the applications are filed. *Iwai et al.* claim an improvement over prior art computerized systems in being programmed to accommodate multiple countries. Letters are prepared (pages 6-7) using a memory means which stores printer document data and variables, which are accessed to constitute the letter.
- [54] *Iwai et al.* disclose several features in the inventive concept, in particular: a system that is capable of accepting inputs, performing calculations on data, extracting information from a database, and displaying data on a user interface [see page 3, lines 23-24; page 4, line 9; page 7, lines 14-20; page 12, lines 14-15; page 40, lines 1-8]. As to the databases, *Iwai et al.* teach memory means which store information concerning each application and a database file including identification of each application, identification of a country to file the application, and filing particulars. As explained on pages 35-36 of *Iwai et al.*, information is extracted (“mailing data”, “due date calculation data”, “extension period calculation data”) from databases (“time-control table”, “rule data file”) and used to perform calculations.
- [55] In *Iwai et al.*, the extracted information is used for calculations; however, the skilled person would realize that a difference is that in the inventive concept the data is input by a user and the information is extracted automatically and sequentially from certain databases in order to carry out the calculations. Further, *Iwai et al.* do not teach displaying data on an internet accessible user interface and sending a message or information over a network.
- [56] We conclude that *Iwai et al.* do not teach the following:
- performing calculations by sequential and automatic extraction of information from certain databases in response to an input operation;
 - displaying data on an internet accessible user interface; and

- sending a message or information over a network;

Tackbary et al.

- [57] The Final Action indicates that Tackbary *et al.* teach a computerized system for creating and ordering greeting cards. Among other functions, the computerized system accepts information as input by a user, performs database searches, displays information, calculates the costs of orders, and sends a message over a network.
- [58] With reference to the inventive concept, the capability of accepting inputs, performing calculations on certain data, sending a message or information over a network, displaying data on a user interface, displaying data on an internet accessible user interface are taught by Tackbary *et al.* [see column 2; lines 24-27; column 11, line 39; column 11, lines 59-67; column 12, lines 35-40; and column 12, lines 49-51].
- [59] However, the computer system operations for extracting and using information from a database are different in Tackbary *et al.* In Tackbary *et al.*, a user may choose to access a database (“card database”) and select items for ordering (“order summary screen”). The system then accesses other databases prior to performing a calculation (“itemized cost of the order”). This is in contrast to the inventive concept where data is input by a user and the information is extracted automatically and sequentially from certain databases in order to carry out the calculations.
- [60] The skilled person would read Tackbary *et al.* as disclosing all of the features of the inventive concept, with the exception that it does not teach performing calculations by sequential and automatic extraction of information from certain databases in response to an input operation.

Summary of differences

- [61] Iwai *et al.* and Tackbary *et al.* disclose all of the essential features of the inventive concept with the exception that there is no teaching of performing calculations by sequential and automatic extraction of information from certain databases in response to an input operation, as set out in claims 1-11. The state of the art also does not teach

combining these known features for automating a conventional manual process (such as calculating PCT national phase lodgment costs).

Step 4: Would the differences "constitute steps which would have been obvious to the person skilled in the art" or do they require any degree of invention?

- [62] The skilled person would exercise no degree of invention in setting forth a computer system for performing calculations by sequential and automatic extraction of information from certain databases in response to an input operation and thereby automating a conventional manual process (such as calculating PCT national phase lodgment costs) by combining the claimed features that are known from the state of the art.
- [63] “[T]he inventive ingenuity necessary to support a valid patent may be found in the underlying idea, or in the practical application of that idea, or in both”: *Canadian Gypsum Co Ltd v Gypsum, Lime & Alabastine Canada Ltd*, [1931] Ex. C.R. 180 (Ex.Ct.). In the present case, there is neither ingenuity in the underlying idea to automate nor in the practical application of that idea. Performing calculations by sequential and automatic extraction of information from particular databases in response to an input operation would have been a well-known implementation option for the skilled person seeking to automate a conventional manual process.
- [64] In its submissions, the Applicant pointed to certain features which are said to be unique to the claimed invention, namely:
- (a) program instructions ... executable ... to determine the number of pages and number of claims of the specification;
 - (b) program instructions... executable... to receive a first and a second country selection;
 - (c) automatically calculating national phase lodgment costs in said first and second selected countries; and
 - (d) the different purpose of the invention — calculation of national phase lodgment costs in multiple countries.
- [65] However, these have been taken into account at step 3, above, and are further addressed as follows. Regarding features (a) to (c), it is essential that a computer must do these

operations; however, the PCT data, fee data, or the cost data represents information which is significant to the user of the system but it is not essential — see purposive construction at paragraph [44]. Moreover, these features would be obvious modifications for the skilled person seeking to automate the conventional manual process.

- [66] Regardless of the purpose of the invention to calculate lodgment costs in feature (d) above, the skilled person would require no inventive ingenuity to arrive at the inventive concept of the claims, i.e., combine known features to automate the manual conventional process of calculating national phase lodgment costs. The skilled person would have the common general knowledge of the conventional process, and be aware that identifying a particular application, determining the number of pages and claims of that application, and receiving a country selection are part of the conventional process for calculating national phase lodgment costs for a PCT application. Any modifications to a conventional general purpose computer for implementing the idea of automating the conventional process would be within the skilled person's routine capabilities — for instance, providing particular databases from which this information can be extracted.
- [67] Further, the cited prior art demonstrates some aspects of the preparation and filing of patent applications had already been computer-automated (see *Iwai et al.*). The skilled person would also be aware of the capabilities of the programmed system in *Tackbary et al.* for ordering greeting cards. From this, the skilled person would realize that *Tackbary et al.* teach the use of a computer system to carry out the same types of functions required for automating the conventional PCT filing process, namely: accepting and receiving data, performing calculations, extracting information, sending and receiving messages over a network, displaying data, and using an internet accessible user interface.
- [68] The use of a computer to perform calculations by sequential and automatic extraction of information from particular databases in response to an input operation would not have required any degree of inventive modification in view of the cited art. Notably, while the precise sequence of automatic data extraction operations in *Iwai et al.* is different than those specifically claimed, these operations directly flow from the type of calculation being made and the attendant databases involved — in *Iwai et al.* these are databases for the calculation of dates. Thus, the skilled person having the knowledge of the manual

process being automated would select the appropriate databases and configure the computer with the requisite programming instructions for accepting inputs, extracting information from certain databases, and performing calculations using the extracted data.

[69] In combination with the common general knowledge identified in (c) and (d) of paragraph [28], the skilled person would also appreciate that only routine modifications to the cited art would be necessary once the goal to automate had been conceived. There would be no ingenuity in arriving at the features set forth in the inventive concept, as in claims 1-11.

[70] Therefore, claims 1-11 are obvious and do not comply with section 28.3 of the *Patent Act*.

The proposed claims

[71] The claims proposed in the Applicant's first submission of November 13, 2013 are identical to the claims on file with the exception of the following changes: (1) proposed claim 1 incorporates claim 2 from the claims on file; (2) claim 2 is deleted from the proposed claim set; and (3) the term "automatically" is deleted from claim 1. The proposed changes to claim 1 are shown in strikeout and underline in the excerpt below:

- (i) ~~automatically~~ determine a number of pages and number of claims of a patent specification corresponding to the PCT application identifier by extracting that information from a PCT application record stored in a PCT application database;

[72] The skilled person reading the proposed claims would find that their essential elements or features are identical to the claims on file; the only difference being that the essential feature of claim 2 ("extract information from a database") is now explicitly part of proposed claim 1, and that feature is used to determine the number of pages and claims — a feature which has already been construed as essential to claim 1 as currently on file (see paragraph 42). The deletion of the term "automatically" does not change the foregoing analysis.

[73] The proposed claims are therefore also considered obvious and non-compliant with section 28.3 of the *Patent Act*.

Recommendation of the panel

[74] Claims 1-11 are obvious and are not compliant with subsection 28.3 of the *Patent Act*. Proposed claims 1-10 do not overcome the obviousness defect. We therefore recommend that the application be refused.

Paul Sabharwal
Member

Ed MacLaurin
Member

Cara Weir
Member

Decision of the Assistant Commissioner

[75] I concur with the Patent Appeal Board's findings and its recommendation that the application be refused because the claims on file are obvious, and the proposed claims do not overcome this defect.

[76] 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.

Agnès Lajoie
Assistant Commissioner of Patents

Dated at Gatineau, Quebec,
this 25th day of May 2015