

Commissioner=s Decision # 1336

Décision du Commissaire # 1336

TOPIC: O - 00, J - 10, J - 40, J - 70

SUJECT: O - 00, J - 10, J - 40, J - 70

Application No : 2,344,781

Demande no : 2,344,781

#### COMMISSIONER'S DECISION SUMMARY

C.D. 1336 Application 2,344,781

#### Obviousness, Patentable Subject Matter

The examiner rejected the application in that it claimed unpatentable subject matter under the *Patent Act*, and further stated that the claims were obvious. The invention relates to updating an insurance premium based on monitored characteristics and transmitting specific information to the insured over the Internet.

*Held:* The Commissioner found that claims 1-17 were obvious on the claim date in view of the state of the art and common general knowledge.

The Commissioner refused to grant a patent on the application.

IN THE CANADIAN PATENT OFFICE

DECISION OF THE COMMISSIONER OF PATENTS

Patent application number 2,344,781, having been rejected by the examiner under subsection 30(3) of the *Patent Rules*, was reviewed by the Patent Appeal Board and by the Commissioner of Patents.

The findings of the panel and the decision of the Commissioner are as follows:

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## Introduction

[ 1 ] This decision reviews patent application number 2,344,781 which was filed on 24 April

2001, claiming a priority date of 15 May 2000, and is entitled A MONITORING SYSTEM FOR DETERMINING AND COMMUNICATING A COST OF INSURANCE<sup>®</sup>. The applicant is PROGRESSIVE CASUALTY INSURANCE COMPANY.

[ 2 ] Examination was requested on 04 July 2001 and 3 reports were issued beginning on 25 February 2005. A Final Action issued on 14 October 2008 rejecting the application for claiming obvious subject matter and for being directed to unpatentable subject matter. The applicant responded with arguments on 14 April 2009. The examiner in charge forwarded the application to the Patent Appeal Board (PAB). The Summary of Reasons (SOR) applied the most recent office practice. It maintained the grounds for rejection for obviousness in view of *Sanofi-Synthelabo Canada Inc. v. Apotex Inc.*, 2008 SCC 61, 69 C.P.R. (4th) 251 [*Sanofi*] and for unpatentable subject matter applying the approach set out in *Re: Application 2,246,933 of Amazon.com*, Commissioner's Decision No. 1290 (2009) [CD 1290, "Method and System for Placing a Purchase Order via a Communications Network"].

[ 3 ] On 20 October 2009, the applicant was provided a copy of the SOR and invited to make submissions and attend a hearing, if so desired. A tentative hearing date for January 2010 was proposed, however it was delayed pending the outcome of *Amazon.com* litigation before the courts.

[ 4 ] On 24 November 2011, the Federal Court of Appeal, in *Canada (Attorney General) v. Amazon.com Inc.*, 2011 FCA 328 [*Amazon FCA*], delivered a judgement which disagreed with the approach taken in CD1290.

- [ 5 ] A panel of three PAB members was established [the panel], and in a letter dated 17 July 2012 the panel set out further considerations subsequent to the *Amazon FCA* decision. The letter invited the applicant to make submissions and/or attend a hearing, if so desired.
- [ 6 ] In our letter dated 17 July 2012, we informed the applicant that unless the applicant provided specific arguments explaining why the inclusion of features in the dependant claims should be viewed as inventive, only those features in the inventive concept identified in the SOR will be considered (for deciding the question of obviousness). On 16 October 2012, the applicant declined to provide any submission in response to our letter.
- [ 7 ] The applicant declined the opportunity to attend a hearing and to make a submission. A decision based on the merits of the record was requested.

#### **Background and the Invention**

- [ 8 ] The instant application (Background of the Invention, pages 2-7) sets out conventional methods for determining costs of motor vehicle insurance. In these methods, relevant historical data from a personal interview with a prospective insurance applicant along with their public (governmental agency) motor vehicle driving record may be used to classify him or her into a broad actuarial class (risk classification based on statistical data) for which insurance rates are assigned based upon the empirical experience of the insurer.
- It is stated that many factors are relevant to classification in a particular actuarial class, such as age, sex, marital status, location of residence and driving record.

- [ 9 ] The instant application states that the data gathered from the applicant in the interview is not verifiable, and existing public records may be insufficient to assess the likelihood of a subsequent claim. Thus, the conventional system is primarily based on past realized losses or claims, and does not reliably predict the manner or safety of future operation of a vehicle.
- [ 10 ] The subject invention proposes to *abase insurance charges with regard to current material data representative of actual operating characteristics to provide a classification rating of an operator or the unit in an actuarial class which has a vastly reduced rating error over conventional insurance cost systems.*<sup>@</sup> (see page 7 of the instant application) It allows for frequent (monthly) adjustment to the cost of coverage because of changes in operator behaviour patterns. These costs when communicated to insured drivers permit them to readily control their future monthly costs of coverage (by adjusting their individual driving behaviours).
- [ 11 ] As described in the summary of the invention (on pages 7-8), this involves monitoring a plurality of raw data elements representative of an operating state of a vehicle or an action of the operator.
- [ 12 ] The claimed invention, as described by the applicant in response to the Final Action (see page 5 of the response dated 14 April 2009), is to *embodyments of a method of communicating a cost of insuring a unit of risk and corresponding operating characteristics for a selected period and a system for Internet on-line communicating between an issuer and insured, of detected operating characteristics of a unit of risk for a selected period, and a cost of insuring the unit for the selected period.*<sup>@</sup>



[ 13 ] The examiner has rejected the application stating the claims are defective as follows:

- < Claims 1 to 17 do not comply with section 28.3 of the *Patent Act* having regard to *McMillan et al.* in view of *Brown* or *Hanneghan et al.*
- < Claims 1 to 17 are unpatentable and fall outside the categories of invention in section 2 of the *Patent Act*.

#### Claims

[ 14 ] Claim 1, which is illustrative of the invention, follows:

1. A computer-implemented method of communicating a cost of insuring a unit of risk and corresponding operating characteristics for the unit monitored for a selected period, comprising steps of:
  - providing a Web site system for communicating data between an insurer's rate processing system and an insured relative to the unit of risk;
  - monitoring the operating characteristics during the selected period;
  - determining the cost of insuring for the period based upon the operating characteristics monitored in that period; and
  - selectively communicating the monitored operating characteristics and decided cost to the insured through the Web site system.

[ 15 ] The meaning of *a unit of risk* would be apparent to the person skilled in the art as being

related to any article or item involving risk. However, for completeness, from the description of the instant application, *Aa unit of risk* (see page 1, line 16) means a vehicle or anything similar which may be insured, for example, motor vehicles, motorcycles, motor homes, trucks, tractors, vans, buses, boats, and other water craft and aircraft. *AOperating characteristics* (see page 9, lines 3-4 of the description) relates to the characteristics used in determining a classification rating of an operator or the unit of risk in an actuarial class for calculating insurance, including features such as miles driven, time of use, and speed of the vehicle. Although *Adecided cost* is not specifically defined in the description, we take it that this is the determined *Acost of insuring* set out in claim 1.

[ 16 ] Thus, claim 1 sets out steps for communicating data to an insured person or entity by using a website system, the data pertaining to the monitored operating characteristics of a unit of risk, and the resulting cost of insuring for a period based on this data (the cost being calculated by the insurer=s rate processing system).

[ 17 ] Claim 10 is similar to claim 1, except it sets out elements of a system for on-line communication, as follows:

10. A system for Internet on-line communicating between an insurer and insured, of detected operating characteristics of a unit of risk for a selected period, and a cost of insuring the unit for the selected period, as determined by processing the detected operating characteristics, the system comprising:

a Web site system for selectively communicating the operating characteristics and the cost from the insurer's rate processing system to the insured;

a monitoring system for monitoring the operating characteristics;

a storage system for storing the operating characteristics, the storage system being accessible to the Web site system; and

a processing system for determining the cost of insuring the unit for the period based upon the monitored operating characteristics, the processing system being accessible to the Web site system.

- [ 18 ] Claims 2 to 9 set out additional limitations to claim 1 such as: the selected period is a real time period or prospective period; the operating characteristics being suggested by the insured and the decided cost being an estimated cost; the type of operating characteristics (a destination, a travel route, a time of travel or an operator identity for the unit of risk); generating an operating profile for the unit of risk; identifying an operator or equipment item as the unit of risk; providing value added services such as telephone services, positioning services, diagnostic services; and considering value added services for deciding the cost of insurance. Dependant claims 11 to 17 set out similar limitations, though for the system claim. As we explained in our correspondence with the applicant, only those particular features in the dependant claims argued (by the applicant) as being inventive or conferring patentability will be considered.

## Obviousness

### Principles of law (obviousness)

- [ 19 ] Section 28.3 of the *Patent Act* sets out the conditions against which a claim is assessed in an obviousness inquiry:

28.3 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.

- [ 20 ] A four step approach for assessing obviousness is set out in *Sanofi*, as follows:

- (1) (a) Identify the notional ~~A~~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 ~~A~~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?

#### Prior Art Relied Upon

[ 21 ] The examiner relies on the following prior art:

#### Patent/PCT Publications

US 5,797,134	18 August 1998	<i>McMillan et al.</i>	(D1)
WO 00/17800	30 March 2000	<i>Brown</i>	(D2)

#### Non-patent literature

Hanneghan et al. (D3), *A The World-Wide Web As A Platform For Supporting Interactive Concurrent Engineering*, in Proceedings of Advanced Information Systems Engineering - 8th International Conference, CAISE'96, Heraklion, Crete, Greece, May 20-24,1996 (available from the Internet at URL:  
  
<http://www.cms.livjm.ac.uk/cmsmhann/publications/papers/CAISE96.pdf>)

#### Analysis [ Sanofi]

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

[ 22 ] In this case, the skilled worker, and thus the common general knowledge, would be the same for each claim. The SOR states that *A [t]he skilled person or persons is skilled in the fields of insurance as well as Internet technology@*. The applicant does not disagree with this assessment, and we also accept it.

[ 23 ] The SOR also states that *A The skilled person understands how to calculate a cost of insurance relative to the unit of risk (D1 - see entire document, especially column 6; D2 - column 3), and is aware of the state of the art relating to all types of insurance, be it vehicle or life insurance. The skilled person is also knowledgeable in Internet technology; specifically regarding communication of information from a central server to a client terminal over the Internet (see D2 - figure 1A; D3 - figure 1).@* We consider that these statements are reasonable characterizations of Common General Knowledge (CGK) at the claim date, and we accept them. We note that although the applicant did not make any submission addressing this CGK, the response to the Final Action raises the issue of the *A motivation for one skilled in the art to even consider the teachings of Brown@* (D2). This issue will be addressed in step 4 of the *Sanofi* analysis.

[ 24 ] In addition, we note that the background of the invention (page 7, line 2) confirms that *A Many insurers offer communication services to customers via Web sites relevant to an insured*

*profile and account status.* The description of actuarial classes in the current system of insurance on page 3 (line 4) indicates that it was CGK on the claim date to use actuarial classifications in insurance cost systems for calculating insurance. Thus, we take it that before the claim date it was CGK to determine (vehicle) insurance costs using classifications based on characteristics such as the vehicle model and value, the driver's age, sex, marital status, driving record, medical condition etc., as well as the type of insurance.

[ 25 ] Our letter dated 17 July 2012 advised the applicant of our initial observations on the above facts and referenced the skilled person defined by the SOR. We invited the applicant to address these points in writing and/or at a hearing. We take the lack of disagreement to mean that the applicant accepts these conclusions.

[ 26 ] As shall be seen under step 4, the CGK in the field of life insurance is also a relevant factor.

We consider that it was well known that term (life) insurance may have premium adjustments annually, every 5 years, or locked-in for the whole length of the insurance policy. We also note that it was CGK that life insurance premiums are routinely set according to marital status, smoking/non-smoking, lifestyle, age, etc.

## Step 2: Inventive concept

[ 27 ] In the SOR, the examiner stated that: *the inventive concept relates to updating an insurance premium based on monitored characteristics and transmitting specific information to the insured over the Internet.* In our letter (to the applicant) we explained that *unless the applicant provides specific arguments explaining why the inclusion of features in the dependant claims should be viewed as inventive, no other features will be considered* to form part of the inventive concept. Since the applicant did not respond to the

SOR, there is no disagreement on file in regards to the inventive concept statement.

[ 28 ] However, before we adopt the above inventive concept (from the SOR) in these reasons, we will verify that it properly reflects the practical problem the invention set out to address, and its solution. In determining the inventive concept from the practical problem and its solution, we start with the claimed monopoly and consider the instant application in light of subsection 80(1) of the *Patent Rules* which specifies that *the description shall . . . describe the invention in terms that allow the understanding of the technical problem, . . . , and its solution*.

[ 29 ] As noted in the background of the invention, a general problem noted in the instant application is that the data gathered from the applicant in the interview is not verifiable, and existing public records may be insufficient to assess the likelihood of a subsequent claim. Specifically, on page 7 of the instant application it is stated that the invention *primarily overcomes the problem of determining cost of vehicle insurance based upon data which does not take into consideration how a specific unit of risk is operated.* The solution claimed involves providing a Web site system for communicating data; monitoring the operating characteristics during the selected period; determining the cost of insuring for the period based upon the operating characteristics monitored in that period; and selectively communicating the monitored operating characteristics and decided cost to the insured through the Web site system.

[ 30 ] The system of claim 10 relates to the same practical problem as above. Claim 10 sets



out a solution to this problem involving: a Web site system for selectively communicating the operating characteristics and the cost data; a monitoring system for monitoring the operating characteristics; a storage system for storing the operating characteristics, the storage system being accessible to the Web site system; and a processing system for determining the cost of insuring the unit for the period based upon the monitored operating characteristics, the processing system being accessible to the Web site system.

[ 31 ] As we noted under step 1 above, the actual calculation of a cost of insurance (referred to as *updating* in the inventive concept provided in the SOR), itself, is CGK and is not part of the inventive concept of claims 1 and 10.

[ 32 ] Also noted under step 1 is that we consider that it was CGK before the claim date that insurers use website systems for communicating data to an insured person regarding his or her insurance needs (see page 7, line 2 of the instant application). Therefore,

*providing a Web site system for communicating data* (in claim 1) between an insurer and an insured was also CGK. However, in relation to using a Web site, the instant application further states (see page 9, lines 19-21) that *real time cost determination and communication through the Web site provides the type of enhanced communications between a customer and an insurer that can be particularly useful in limiting costs, and enhancing safety*. This relates to the use of a Web site for *selectively communicating the monitored operating characteristics and decided cost to the insured* in the solution of claim 1. Therefore, we include the use of a website system in the inventive concept to account for potential inventiveness considerations under step 4.

[ 33 ] We find that the inventive concept of claims 1 and 10 is monitoring the (vehicular) operating characteristics, and using a Web site system for selectively communicating that information (operating characteristics) and the costs of insurance determined using that information. There are no other argued distinguishing features in respect of the dependant claims, and therefore, in accordance with our letter to the applicant, this inventive concept applies to all of the claims. All subsequent references to the *inventive concept* in this recommendation relate to the inventive concept determined by the panel.

[ 34 ] Although our finding as to the inventive concept is different from what is stated in the SOR, as shall be seen, the finding of obviousness remains undisturbed.

Step 3: Difference between the Astate of the art@ and the inventive concept of claims 1 to 17

*McMillan et al. and the differences therefrom*

[ 35 ] *McMillan et al.* disclose a method and system of determining a cost of automobile insurance based upon monitoring, recording and communicating data representative of operator and vehicle driving characteristics. *McMillan et al.* states the cost is adjustable retrospectively and can be prospectively set by relating the driving characteristics to predetermined safety standards. The method comprises steps of monitoring a plurality of raw data elements representative of an operating state of the vehicle or an action of the operator.

[ 36 ] Column 8 of *McMillan et al.* (see lines 30-31) describes the implementation of a data gathering

process for a vehicle via *“conventional computer programming in the real time operating kernel 408 of the computer 300”* (also see Figure 1) to record vehicle sensor data (data which relates to predetermined safety standards and trigger event data). In relation to Figure 2, Column 10 describes that the central billing system of the insurer will acquire the vehicle sensor record file (via periodic uploading). The uploaded raw data elements are used to calculate insurance rates (Figure 5).

[ 37 ] *McMillan et al.* does not describe in detail what particular communication method is used for obtaining the data from the vehicle. From Figure 6, it is evident that an interface using a standard *“SAE J1978 Connector”* and/or I/O ports (RS-232/422) is employed. From this, the panel understands that a networked connection is made with a computer or computers in the central control station, to retrieve the data from the vehicle. Thus, the feature of monitoring the (vehicular) operating characteristics in the inventive concept of claims 1 and 10 is known from *McMillan et al.*

*Argued differences over McMillan et al.*

[ 38 ] In the prosecution, the applicant argued that *McMillan et al.* is deficient in not suggesting operating characteristics such as *“miles driven, time of use and speed of the vehicle”*. The panel does not agree that this is a difference. Column 4, line 28 of *McMillan et al.* states that it will use *“information acquired from the vehicle to more accurately assess vehicle usage and thereby derive insurance costs more precisely and fairly. Examples of possible actuarial classes developed from vehicle provided data include: Total driving time in minutes . . . number*

*of minutes of driving at high/low risk times (rush hour or Sunday afternoon); . . . observance of speed limits*®. From these facts, we take it that monitoring operating characteristics such as miles driven, time of use and speed of the vehicle was known from *McMillan et al.* Note that *A miles driven*® is simply a calculation based on the monitored speed and total driving time (see also column 8, lines 39-60 - *A recording process...status of all monitored sensors*®). As such, we maintain our view that the feature of monitoring the (vehicular) operating characteristics in the inventive concept is known from *McMillan et al.*

[ 39 ] Thus, the only difference between the inventive concept and *McMillan et al.* is using a Web site system for selectively communicating the operating characteristics and the costs of insurance determined using that information. This accords with one of the distinguishing features argued by the applicant during prosecution and with the inventive concept identified by the examiner in the SOR (see paragraph 27).

*Brown and the differences therefrom*

[ 40 ] *Brown* discloses a system whereby *A insured persons and associated beneficiaries are coupled to a client-server system disposed for dynamic measurement of medical information, and the client-server system is disposed for alerting the insured persons and associated beneficiaries to suggested behaviors [sic] for reducing risk.*® (see *Brown*, abstract). The insurance product involves portions of the insurance premium being allocated based on compliance with the

suggested behaviours. The unit of risk involved in *Brown* relates to long term care, health or life insurance.

[ 41 ] The SOR characterizes Brown as teaching the following:

- providing a Web site system for communicating data between an insurer's rate processing system and an insured relative to the unit of risk (page 6, lines 21 to 23);
- monitoring the operating characteristics during the selected period (analogous to determining the "insured-against" risk - see especially pages 1 to 3 and 7 to 9);
- determining the cost of insuring for the period based upon the operating characteristics monitored in that period (analogous to dynamically adjusting the cost or the benefits of the insurance policy in response to actions taken by the insured - see especially page 2, lines 5 to 11); and
- selectively communicating the monitored operating characteristics and decided cost to the insured through the Web site system (page 2, lines 15 to 20; page 8, line 33 to page 9, line 3; page 9, lines 14 to 18; page 12, lines 10 to 17).

[ 42 ] Our review of *Brown* shows that it discloses a system consisting of devices connected over a network such as the Internet. Page 6 of *Brown* describes that there is a client/server communication channel which *May be a simple point-to-point network (for example a wire connecting the client device 110 with the server device 120), or a complex network such as the Internet.* (lines 21-23) Characteristics of the patient (client) including data from measurement

devices such as a blood glucose meter and blood pressure monitor are sent remotely to a server and a database (i.e. buttons relaying information from the patient; see figure 1B, and page 6 lines 24-30 - *“input element 113 for entering information from patient”*; page 7, lines 13-22 - *“server device 120...database 121”*). The database includes medical history, medical regimen, and risk progression information for the insured and a similarly situated population. The database also includes *“the compliance background for the insured indicating how well the insured follows the prescribed medical regimen and avoids the proscribed activities.”* (page 7, lines 20-29 - *“risk progression information for the insured”*). In *Brown* it is stated that the server and database are accessible using a World Wide Web connection (page 7, line 27). Therefore, we find that there is no material difference between *Brown* and the inventive concept in relation to the feature of monitoring the operating characteristics during the selected period.

- [ 43 ] Beginning on page 8, line 33, it is stated that *“Feedback is provided to the insured 201 by sending feedback information from the server device 205 to the client device 203. This feedback information can include additional medical regimens for the insured 201 to timely follow (for example, additional tests that are determined by the server device 205 responsive to the information just gathered from the insured).”* The feedback having to do with *“operating characteristics”* which the patient/insured (client) is himself/herself involved in generating, we find that there is no difference in relation to the claimed feature of using a Web site system for selectively communicating the (operating characteristics) information to the insured.

[ 44 ] As to selectively communicating the costs of insurance determined using that information (*Adecided cost* in claim 1, *Athe cost* in claim 10), there are many similarities to *Brown*. For instance, in *Brown* (pages 3-4, page 9, line 26 - *Adynamic risk assessment process*) a dynamic risk assessment occurs in which the server can modify portions of an insurance premium (or other financial product payments) and reallocate one or more components (such as a long-term care component or a life insurance component). See pages 11-12, figure 4, *Aadjust the cost of the financial product*, *Aallocate benefits procedure 407*. This relates to the *Aallocate benefits procedure 407* described on page 12 (lines 8-12). Lines 12-14 further define *Ainform procedure 409* which provides the insured with information about new allocations (line 15) using postal mail or by using the *Apresent feedback information procedure 335*. The feedback procedure 335 involves communicating (over the network/Internet) to the client device 110, as explained on page 11 (lines 18-19). Also see *Brown*; page 11, line 7 - *Arespond to risk procedure 329*.

[ 45 ] Thus, the inventive concept of monitoring the operating characteristics, and using a Web site system for selectively communicating the costs of insurance determined using that information, is known from *Brown*.

*Argued differences over Brown*

[ 46 ] The applicant stated that *Brown* is not fully automated as it relies on the intervention and activities

of medical personnel, professional personnel and the insured. In our understanding, the applicant=s argument is that the data or information is acquired (or inputted) through the intervention and activities of medical personnel, which is not data that is obtained automatically. This would be in contrast with the instant application where, for example, page 12 in reference to Figures 3 and 4, describes that *Aon-board computer 300 monitors and records various sensors and operator actions to acquire the desired data for determining a fair cost of insurance.*®

[ 47 ] We consider that there is no material distinction over the inventive concept in respect of intervention and activities of medical personnel in *Brown*. In *Brown*, the client device passes information acquired from the insured to the server device, where this data is used for a *Adynamic risk assessment process*® (page 9, line 26). As explained at line 28, *Agather patient information step 301 obtains medical information (such as bio-medical information) from the insured (using the client device 110) by using a series of questions or by using bio-medical sensors.*® [emphasis added] Therefore, *Brown* encompasses an embodiment whereby sensors acquire data electronically, which data is used to determine insurance costs. Therefore, this distinction (i.e. intervention of personnel) is not a difference.

[ 48 ] The applicant also argued that *Brown* is concerned with life insurance which is fundamentally different from automobile insurance, requiring different considerations for implementing the apparatus and methods. While the inventive concept does not specifically reference automobile



insurance, the invention relates to this type of insurance, since in the claims *“a unit of risk”* relates generally to vehicular (mobile) applications. Therefore, one difference (over the inventive concept) is that *Brown* is not handling vehicular operating characteristics or vehicle insurance calculations. We will consider this difference under step 4.

[ 49 ] The structure and function of the inventive concept are analogous to the corresponding features in *Brown*. Thus, the only difference over *Brown*, in relation to the inventive concept of claims 1 and 10, is that *Brown* does not relate to vehicular or automobile insurance, which will be discussed in step 4.

*Hanneghan et al. and the differences therefrom*

[ 50 ] *Hanneghan et al.* was cited by the examiner to show that it was known to use the World-Wide Web for delivering and sharing information, including on-line insurance quotations. On page 3, under *“2. Rationale for Using the World-Wide Web”*, it is stated that the Internet (WWW) is being used with client-server applications *“and a number of novel WWW-based applications are currently being used and developed to exploit this. Examples include on-line insurance quotations,...”*

[ 51 ] The applicant raised no arguments in relation to *Hanneghan et al.*

[ 52 ] Other than a reference to uses of the WWW and the one reference to online insurance quotations, *Hanneghan et al.* is not particularly relevant to the claimed subject matter of the instant application (i.e. it is not particularly relevant for a person of ordinary skill seeking a solution to the particular problem addressed by the instant application). Therefore, *Hanneghan et al.* does not change the differences over the state of the art that we identified earlier.

*Conclusion: Differences over the state of the art (step 3)*

[ 53 ] The differences between the state of the art and the inventive concept of claims 1 to 17 are:

- (i) *Brown* relates to life insurance rather than automobile (vehicular) insurance, which raises the question of whether or not it is appropriate to consider *Brown* (alone or in combination with *McMillan et al.*) in the state of the art;
- (ii) *McMillan et al.* does not teach using a Web site system for selectively communicating the operating characteristics and the costs of insurance determined using that information.

Step 4: 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?

*Is the difference (i) from step 3 obvious or did it require any degree of invention?*

[ 54 ] We next consider whether there is any degree of invention in respect of the difference (i) - *Brown* relates to life insurance rather than automobile (vehicular) insurance.

[ 55 ] On page 13 of the response to the Final Action, the applicant stated (referencing page 7 of the Final Action) that:

It is to be appreciated that life insurance is fundamentally different from automobile insurance and the implementation of apparatus and/or methods for life insurance involve entirely different considerations in view of these differences.

. . .

As compared to an automobile insurance policy, the premiums payable under a life insurance policy cannot be affected or controlled by the conduct of the insured. Once a life insurance policy is issued, the premiums do not vary, i.e. increase or decrease, based on conduct of insured.

. . .

With regard to the present invention, it is to be appreciated that the variability, i.e. adjustability, of the insurance premiums payable during the term of the policy and based on the conduct of the insured during the term of the policy is a fundamental feature of the system and method according to the present invention.

. . .

there is no motivation for one skilled in the art to even consider the teachings of Brown, let alone combine the teachings of Brown with McMillan as alleged by the Examiner.

[ 56 ] We will address the aforementioned points raised by the applicant, in turn.

[ 57 ] First we will consider whether or not the way in which premiums are adjusted for a life insurance policy is fundamentally different from an automobile insurance policy. For example, the applicant states that the premiums payable under a life insurance policy in *Brown* cannot be affected or controlled by the conduct of the insured, as opposed to the present invention where the insurance premiums payable during the term of the policy are based on the conduct of the insured during the term of the policy.

[ 58 ] We do not agree with applicant's characterization of life insurance and *Brown*. The insurance premium in *Brown* is allocated in response to compliance (by the insured) with the suggested behaviours. Beginning on page 3 (line 30), *Brown* explains that a long-term care component and a life insurance component of the premium may be altered by the conduct of the insured. This relates to the risk reduction desired in *Brown*, whereby the system *allows the underwriter to dynamically determine the current risk to the insured and to provide incentives to the insured to reduce that risk* (page 6, lines 10-12). It involves changing the payment allocation so that the insured has *An incentive...to conform to the currently suggested medical*

*regimen* (page 12, lines 24-26). So, a re-calculation or revision of insurance premiums is envisaged by *Brown*.

[ 59 ] As to adjusting premiums payable during the term of the policy, the panel considers that this (i.e. when to adjust premiums) is a choice having to do with the strategy by which an insurance business wishes to spread its risk (and rewards/profit). As we noted under step 1, it was CGK that term insurance may have premium adjustments annually, every 5 years, or locked-in for the whole length of the insurance policy. A common factor for adjusting rates is age. We also noted that life insurance premiums are routinely set according to marital status, smoking/non-smoking, lifestyle, etc. Therefore, one could decide to alter premiums based on any number of other factors and for any chosen period of time over the term of a policy, for any type of insurance.

[ 60 ] We will next address the issue raised by the applicant of the *A*motivation for one skilled in the art to even consider the teachings of *Brown*. The Final Action (on page 7) notes that *A*it would have been obvious to a person skilled in the art to apply the method of D2 [Brown] to the vehicle insurance monitoring system of D1 [McMillan et al.], as a person skilled in the art of insurance would be expected to have knowledge of both vehicle and insurance quotation practices.

Further, at step 1, we noted that the SOR defines the skilled person as being *A*skilled in the fields of insurance, which the applicant did not disagree with. In determining the inventive concept (see step 2), we considered the *A*practical problem as being generally related to costs of insurance. In this case, although *Brown* addresses a problem related to *A*life insurance we consider that it is not remote from the problem addressed by the instant application in the context of *A*automobile insurance. In particular, merely processing life insurance information

vs. automobile insurance information (i.e. a different type of information, *per se*) is not distinguishing, by itself. We find that the skilled person would have found *Brown* on a reasonable and diligent search, and it is part of the relevant state of the art.

[ 61 ] Further, as we noted under step 3, there are no differences between *Brown* and the inventive concept of claims 1 and 10, in respect of structure and function. As to the different considerations (over *Brown*) alluded to by the applicant for implementing the apparatus and methods, no particular distinguishing features for the implementation of automobile insurance, as they relate to the features in claims 1 to 17, have been identified by the applicant.

[ 62 ] Based on the common general knowledge of the skilled person on the claim date, we find that there is no degree of invention in considering prior art in the area of life insurance (i.e. relating to difference (i) - *Brown* relates to life insurance rather than automobile (vehicular) insurance). We also find that *Brown* is part of the state of the art.

[ 63 ] Although the SOR considers the claims are obvious in view of *Brown* and *McMillan et al.* together, we conclude that the inventive concept of the claims is obvious in view of *Brown*, taken alone.

*Is the difference (ii) from step 3 obvious or did it require any degree of invention?*

[ 64 ] This relates to the difference (ii) - *McMillan et al.* does not teach using a Web site system

for selectively communicating the costs of insurance determined using (operating characteristics) information. The Final Action and SOR allege obviousness having regard to *McMillan et al.* in view of *Brown* or *Hanneghan et al.*

[ 65 ] The Final Action makes reference to column 10 (lines 41-44) of *McMillan et al.*, where it is stated that the appropriate billing showing the charges for insurance for the prior period is produced and *can be sent electronically or in printed form to the insured for payment*. Considering what is stated in claim 24 of *McMillan et al.*, namely: *adjusting by the driver of driving behaviour* and the driver having awareness and control of the (monitored) data elements, it is implicit that the driver must be made aware of the reasoning behind the charges for insurance on the bill. At the very least, it would have been an obvious step to the skilled person to include reasons for the cost, namely, the monitored operating characteristics, in the billing statement of *McMillan et al.*

[ 66 ] As to the use of the Internet, or world wide web (www) for communicating to the insured, while *McMillan et al.* does not specifically mention that technology, it does disclose sending the billing statement *electronically*. Based on the CGK (as to the use of the Internet) we identified at step 1, we find that there is no degree of invention in using a Web site system for selectively communicating the costs of insurance determined using (operating characteristics) information, in comparison to *McMillan et al.* We conclude that the claims are obvious in view of *McMillan et al.* and the CGK of the skilled person.

[ 67 ] Although the SOR states that the claims are obvious from *McMillan et al.* in view of *Hanneghan et al.*, under step 3 we did not consider *Hanneghan et al.* particularly relevant to the invention. Four years prior to the claim date of the instant application, *Hanneghan et al.* discussed the use the World-Wide Web for delivering and sharing information, including a

passing reference to on-line insurance quotations.

[ 68 ] Considering our conclusion at paragraph 62, the teachings of *McMillan et al.* can also be considered with *Brown*. In regards to the use of the Internet or www for communicating being a difference over *McMillan et al.*, *Brown* (on page 6) discloses a system consisting of devices (client device, server, database) connected over a network such as the Internet. On page 11 (lines 15-18), feedback about bio-medical information and medical regimen is provided to the insured over the Internet (page 11, line 19 - *sent back to the client device 110*, page 12, lines 12-14 - *inform procedure 409*). In view of the type of information communicated over the Internet in *Brown*, it would have been an obvious step to modify *McMillan et al.* to communicate the monitored operating characteristics and the decided cost of the insurance to the insured over the Internet. Therefore, we find that the inventive concept of claims 1 to 17 is also obvious in view of *McMillan et al.* and *Brown*.

#### Conclusion - Obviousness of claims 1-17 (step 4)

[ 69 ] The panel finds that independent claims 1 and 10, and dependant claims 2-9 and 11-17 are obvious in view of the state of the art, namely: *Brown* and *McMillan et al.*, whether each is considered independently or in combination. Notably, as we stated earlier, the claims are obvious in view of *McMillan et al.* itself and not in combination with *Hanneghan et al.* as stated in the SOR. Further, although the Final Action does not articulate the obviousness argument



taking *Brown* alone, we consider the inventive concept of claims 1 to 17 is obvious in view of *Brown*, when taken alone.

[ 70 ] Therefore, on the claim date there was no degree of invention in the differences between the inventive concept and the state of the art.

### Statutory Subject Matter

#### Principles of law (statutory subject matter)

[ 71 ] Not all inventions that are useful, new and unobvious are entitled to patent protection. Certain types of subject matter are excluded from patentability.

[ 72 ] 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.

[ 73 ] To make a final determination with respect to the section 2 question, the panel will consider the most recent Canadian decision concerning patentable subject matter in the area of computer-implemented inventions, *Canada (Attorney General) v Amazon.com Inc*, 2011 FCA 328.

[ 74 ] In this decision, the Federal Court of Appeal stated, at paragraphs 62-63:

[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).

[63] It is arguable that the patent claims in issue in this case could fail on the same reasoning, depending upon whether a purposive construction of the claims in issue leads to the conclusion that *Schlumberger* cannot be distinguished because the only inventive aspect of the claimed invention is the algorithmCa mathematical formulaCthat is programmed into the computer to cause it to take the necessary steps to accomplish a one-click online purchase. On the other hand, it is also arguable that a purposive construction of the claims may lead to the conclusion that *Schlumberger* is distinguishable because a new one-click method of completing an online purchase is not the whole invention but only one of a number of essential elements in a novel combination. In my view, the task of purposive construction of the claims in this case should be undertaken anew by the Commissioner, with a mind open to the possibility that a novel business method may be an essential element of a valid patent claim.

[ 75 ] The panel invited the applicant to address *Amazon FCA* in our correspondence dated 17 July 2012. The applicant did not make a submission.

[ 76 ] Considering the guidance in *Amazon FCA* (paragraphs 62, 63, 74) and *Free World Trust v. Électro Santé Inc.*, 2000 SCC 66 (see paragraph 15), the interpretative task must distinguish and separate *“a complex layers of definitions of different elements (or “components” or “features” or “integers”) of differing complexity, substitutability and ingenuity.”* We must also consider *“how computers work and the manner in which computers are used to put an abstract idea to use.”* [see *Amazon FCA*, paragraph 74].

[ 77 ] Under obviousness, through the eyes of the skilled person, we considered the practical problem addressed by the instant application and found that the solution of claim 1 involves providing a Web site system for communicating data; monitoring the operating characteristics during the selected period; determining the cost of insuring for the period based upon the operating characteristics monitored in that period; and selectively communicating the monitored operating characteristics and decided cost to the insured through the Web site system. We found that the system of claim 10 sets out a solution to the practical problem involving: a Web site system for selectively communicating the operating characteristics and the cost data; a monitoring system for monitoring the operating characteristics; a storage system for storing the operating

characteristics, the storage system being accessible to the Web site system; and a processing system for determining the cost of insuring the unit for the period based upon the monitored operating characteristics, the processing system being accessible to the Web site system.

[ 78 ] Although not explicit in the claims, the technical details of monitoring vehicle operating characteristics are described on page 12 in reference to Figures 3 and 4, as follows:

An on-board computer 300 monitors and records various sensors and operator actions to acquire the desired data for determining a fair cost of insurance.

Although not shown therein, a plurality of operating sensors are associated with the motor vehicle to monitor a wide variety of raw data elements. Such data elements are communicated to the computer through a connections cable which is operatively connected to the vehicle data bus 304 through an SAE-J1978 connector, or OBD-II connector or other vehicle sensors 306. A driver input device 308 is also operatively connected to the computer 300 through connector 307 and cable 302. The computer is powered through the car battery 310, a conventional generator system, a battery or a solar based system (not shown). Tracking of the vehicle for location identification can be implemented by the computer 300 through navigation signals obtained from a GPS (global positioning system) antenna, a differential GPS or other locating system 312. The communications link to a central control station is accomplished through the cellular telephone, radio, satellite or other wireless communication system

314.

FIGURE 4 provides the block diagram of the in-vehicle computer system. The computer 300 is comprised of several principal components, an on-board data storage device, an input/output subsystem for communicating to a variety of external devices, a central processing unit and memory device and a real time operating kernel for controlling the various processing steps of the computer 300. It is known that all of these functions can be included in a single dedicated microprocessor circuit 300. The computer 300 essentially communicates with a number of on-board vehicle devices for acquisition of information representative of various actual vehicle operating characteristics. A driver input console 410 allows the driver to input data representative of a need for assistance or for satisfaction of various threshold factors which need to be satisfied before the vehicle can be operated.

[ 79 ] Further, since *Aa unit of risk* is a (mobile) vehicle or similar, and the insurance calculation is done by the insurer at a remote location using a computer, it is an essential feature of the invention that the *Aonboard computer 300* is in communication with the computer used by the insurer for making the insurance calculations. As explained on page 13 of the instant application:

The vehicle is linked to an operation control center 416 by a communications

link 418, preferably comprising a conventional cellular telephone interconnection, but also comprising satellite transmission, magnetic or optical media, radio frequency or other known communication technology.

[ 80 ] Thus, *Amonitoring the operating characteristics@* is an essential feature of the solution given the various data gathering and processing steps involved, which cannot be omitted, or substituted for mental means, without having a material effect on the operation of the invention. This situation is distinguishable from the solution in *Schlumberger*.

[ 81 ] Considering the guidance from the courts, and purposively construing the claims in this case, the panel finds that at least the following features in the solution are essential to the invention: *Amonitoring the operating characteristics@*; and *Adetermining the cost of insuring@*. The feature of *Amonitoring the operating characteristics@* comprises technical features and physical steps sequenced to achieve the practical result of updating an insurance premium based on monitored characteristics and transmitting specific information to the insured over the Internet. The feature *Adetermining the cost of insuring@*, although a mathematical calculation *is not the whole invention but only one of a number of essential elements in a novel combination.@*: see *Amazon FCA* at paragraph 63.

[ 82 ] The monitoring of operating characteristics limitation being essential, the claimed subject matter not being merely abstract, and the subject matter not being otherwise excluded from

patentability, the panel finds that method claims 1-9 and system claims 10-17 are directed to statutory subject matter.

**Conclusion - Compliance under the *Patent Act***

[ 83 ] Claims 1 to 17 are not compliant with section 28.3 of the *Patent Act*. Claims 1 to 17 are patentable under section 2 of the Patent Act.

## Recommendation

[ 84 ] The panel recommends that the rejection of the application be affirmed for non-compliance with section 28.3 of the *Patent Act*, because claims 1 to 17 are obvious in view of *McMillan et al.* and *Brown*. We recommend that the application be refused in accordance with section 40 of the *Patent Act*.

[ 85 ] Accordingly, the panel recommends a refusal to grant a patent for this application.

P. Sabharwal

A. Strong

C. Teixeira

Member

Member

Member

## Decision

[ 86 ] I concur with the Patent Appeal Board's finding that the application does not comply with section 28.3 and its recommendation that the application be refused in accordance with section 40 of the *Patent Act*.

[ 87 ] Accordingly, 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.



Sylvain Laporte  
Commissioner of Patents

Dated at Gatineau, Quebec,  
this 22<sup>nd</sup> day of February, 2013