(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
13 March 2014 (13.03.2014)

WIPO | PCT

(10) International Publication Number
WO 2014/036653 A1

(51) International Patent Classification:
*G06Q 50/22* (2012.01) *G06F 19/00* (2011.01)
*A61B 5/00* (2006.01) *G06F 17/30* (2006.01)

(21) International Application Number:
PCT/CA2013/050687

(22) International Filing Date:
6 September 2013 (06.09.2013)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/698,069 7 September 2012 (07.09.2012) US

(72) Inventor; and
(71) Applicant : **MACNAUGHT, Hugh** [CA/CA]; 2738 Saint Andrews Avenue, North Vancouver, British Columbia V7N 1Z3 (CA).

(74) Agent: **BRION RAFFOUL**; 289 Cyr Avenue, Ottawa, Ontario K1L 7N6 (CA).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

**Published**:

— *with international search report (Art. 21(3))*

WO 2014/036653 A1

(54) Title: COMPARISON OF USER EXPERIENCE WITH EXPERIENCE OF LARGER GROUP

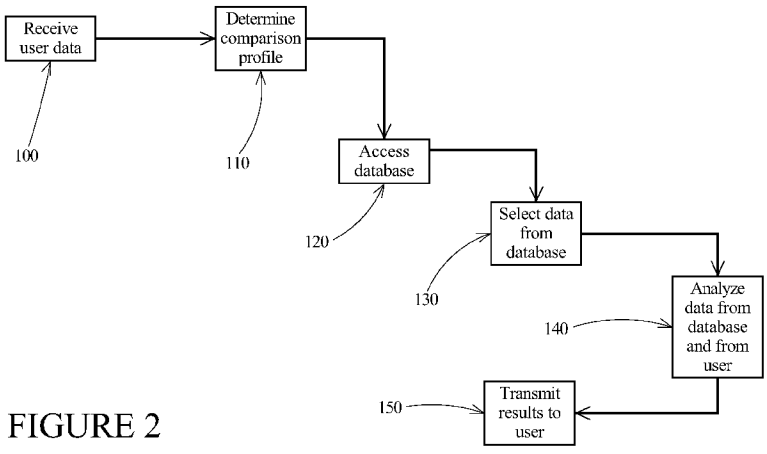


FIGURE 2

(57) Abstract: Systems and methods for determining if a user's experience is in common with the experience of a larger number of individuals. A user's data relating to the user's lifestyle and wellness is received at a database. Candidate data, again relating to a candidate's lifestyle and wellness, is then selected from the database based on a comparison profile. The selected candidate data is analyzed in real time in conjunction with the user data. The results are then sent to the user on his or her data computing device or to someone working with the user on his of her health, wellness and lifestyle.

# COMPARISON OF USER EXPERIENCE WITH EXPERIENCE OF LARGER GROUP

## TECHNICAL FIELD

[0001] The present invention relates to the assessment of a user's lifestyle and wellness-related data. More specifically, the present invention relates to methods, systems, and devices for assessing the user's lifestyle and wellness-related data against lifestyle and wellness-related data from others.

## BACKGROUND OF THE INVENTION

[0002] The current international epidemic of obesity and diabetes can, according to some sources, be blamed on the inactivity of people. Many of the benefits of improved wellness or health would only be possible through sustained behavior modification, and many people lack or lose motivation to persist with new regimens or activities. Those who are attempting such behavior modification, more often than not, feel that their results are not typical and that others who have attempted such measures have been more successful. This mindset can contribute to the diminution if not the elimination of the motivation to persist.

[0003] Individuals who are attempting to modify their sedentary or less active lifestyles may get disheartened if they see that their efforts are not succeeding or are not as successful as they would like. However, if such individuals can access data on individuals similar to themselves undergoing the same process, they may see that their results are typical

or may even be better than expected. This sharing of data may thus increase or maintain an individual's motivation to continue with their program.

[0004] Another field in which an individual's motivation may be bolstered by knowing that others are in the same situation is women's fertility. It is known that women desiring to conceive children experience declining fertility with advancing age. Further, it is recognized that lifestyle decisions are factors influencing infertility and the inability to conceive.

[0005] Individuals who are attempting to modify their lifestyles to assist in their efforts to conceive children may get disheartened if they see that their efforts are not succeeding or are not as successful as they would like. However, if such individuals can access data on individuals similar to themselves undergoing the same process, they may see that their results are typical or may even be better than expected. This sharing of data may thus increase or maintain an individual's motivation to continue with their program. Alternatively, consulting data from others may indicate that they should consult with a medical professional regarding other approaches.

[0006] Currently, there are no systems which allow for easy sharing and comparison of lifestyle and wellness-related data between individuals who are unknown to each other, at least one of whom is in the midst of such behavior modification.

[0007] Currently, there are no systems which allow for a user to define a peer group based on personally selected or pre-selected parameters.

**SUMMARY OF INVENTION**

[0008] The present invention provides systems and methods for determining if a user's experience is in common with the experience of a larger number of individuals. A user's data relating to the user's lifestyle and wellness is received at a database. Candidate data, again relating to a candidate's lifestyle and wellness, is then selected from the database based on a comparison profile. The comparison profile can be automatically recommended by the system, or be manually created by the user using specific shared user profiles or keywords that match other profiles. The selected candidate data is analyzed in real time in conjunction with the user data. The results are then sent to the user on his or her data computing device or to someone working with the user on his or her health, wellness, and lifestyle.

[0009] In a first aspect, the present invention provides a method for determining whether a user's lifestyle and wellness are common among a plurality of other individuals, the method comprising:

a) receiving user data relating to lifestyle and wellness, said user data being gathered from said user;

b) determining a comparison profile;

c) accessing a database of database data, said database of database data containing data for said plurality of other individuals;

d) selecting candidate data from said database, said candidate data being related to lifestyle and wellness and said candidate data being data for individuals matching at least a predetermined portion of said comparison profile;

e) analyzing said candidate data selected in step d) and said user data;

f) sending results of said analysis to a destination device.

[0010] In a second aspect, the present invention provides a system for analyzing data relating to lifestyle and wellness, the system comprising:

- a database for storing user data and candidate data, said user data and candidate data both relating to lifestyle and wellness;

- a data processor for processing said user data and said candidate data;

wherein said system is used in a method for determining whether a user's experiences relating to lifestyle and wellness are common among a plurality of other individuals, the method comprising:

a) receiving said user data, said user data being gathered from said user;

b) determining a comparison profile;

c) accessing said database, said database containing said candidate for said plurality of other individuals;

d) selecting said candidate data from said database, said specific candidate data being data relating to lifestyle and wellness for individuals matching at least a predetermined portion of said comparison profile;

e) analyzing said specific candidate data selected in step d) and said user data;

f) sending results of said analysis to said user.

[0011] In a third aspect, the present invention provides computer readable medium having encoded thereon computer readable and computer executable instructions which, when executed, implements a method for determining whether a user's experiences relating to lifestyle and wellness are common among a plurality of other individuals, the method comprising:

a) receiving user data, which relates to lifestyle and wellness, said user data being gathered from said user;

b) determining a comparison profile;

c) accessing a database of database data, said database of database data containing data relating to lifestyle and wellness for said plurality of other individuals;

d) selecting candidate data from said database, said candidate data being data relating to lifestyle and wellness for individuals matching at least a predetermined portion of said comparison profile;

e) analyzing said candidate data selected in step d and said user data;

f) sending results of said analysis to a destination device.

**BRIEF DESCRIPTION OF THE DRAWINGS**

[0012] The embodiments of the present invention will now be described by reference to the following figures, in which identical reference numerals in different figures indicate identical elements and in which:
**FIGURE 1** is a block diagram of a system according to one aspect of the invention; and
**FIGURE 2** is a flowchart detailing the steps in a method according to another aspect of the invention.

**DETAILED DESCRIPTION OF THE INVENTION**

[0013] As noted above, the provision of information comparing a user's results data to results data from their peers would provide additional motivation to users since

they could get a better idea of whether their experience was typical or not.

[0014] Such feedback could be presented to show how the individual ranked within a self-defined or pre-defined population of interest. The data may be collected through manual entry (using a questionnaire or a survey), automated entry from a single device, automated entry from multiple devices, or manual or automated entry of data from multiple devices. Such devices may include sensors designed to measure heart rate, weight, activity, blood glucose, or galvanic skin response as well as sensors which gather other lifestyle and wellness-related data from the user. Data from these and other devices are collected and analyzed using unique algorithms designed to perform a multivariate or meta-analysis and may be used to track and compare one or more parameters over time against a self- or pre-defined population. These are then used to generate an overall wellness or status measure.

[0015] It should be noted that, for the purposes of this document, the term lifestyle and wellness-related data is defined as including medical or health-related data. While the discussion in this document will focus on the sharing of lifestyle and wellness-related data, the concept of sharing personal experience/data and using a database of shared experience/data for comparison with one's own experience/data may be used in other fields. The present invention can be applied to any information for which a user wishes to assess his or her own personal experience against the experience of a larger number of people. One example would be the assessment of fuel consumption for a

particular model and year of car to enable the owner to understand whether their experience was typical of real-life experience of similar owners, and how this compares to manufacturers' claims. Other examples relating to health, physical and mental wellness may include comparing a user's lifestyle and wellness data against athletes or against the general populace. Similarly, the invention may be used in comparing athletic results against data collected from a selected groups of candidates (the candidate data). As an example, an athlete may wish to compare his physical wellness data or his lifestyle data against candidates who are top-level athletes such as those who have competed in the Olympic Games. A further example may be that of a user comparing his lifestyle (perhaps including diet information, exercise information, and physical characteristics) against those who are in the same age/weight/physical activity level as himself. Of course, such a user may also wish to compare his lifestyle data with data for top-level athletes as well. In a further example, a user who is undergoing a specific dietary regime ( e.g. a high protein/low carbohydrate diet, a reduced sugar diet, etc.) may wish to compare the results of his diet against the results of others also undergoing the same regimen.

[0016] Referring to Figure 1, a block diagram of a system which uses the invention is illustrated. The system 10 has a database 20 which receives data from data source 30. The data in the data source 30 are derived from the user 40. The data in the database 20 and the data from the data source 30 are then analyzed by data processor 50. The results of the analysis are then

transmitted to a data processing device 60. The data processing device 60 may be operated or used by user 40 or by a person who is working with the user on the user's health and wellness (e.g. a doctor or personal trainer).

[0017] The database 20 may take the form of a computer server with suitable data storage capabilities and communications capabilities such that it can communicate with other devices. The data source 30 may be sensors attached to devices that measure the user's lifestyle and wellness-related data. As an example, sensors attached to a heart rate monitor, a blood pressure measuring, or other devices for measuring the user's vital signs may function as the data source 30. Alternatively, the data source 30 may take the form of questionnaires or surveys filled out by the user. The data in the questionnaires or surveys are then entered into a computing device and then sent to the database 20. Another potential data source 30 may be another database such a hospital or doctor's database. A further alternative data source 30 may be a database at a health club.

[0018] It should be noted that, once the user lifestyle and wellness-related data is received, it is added to the database so that it can be used when other users are searching the database. To protect a user's privacy, the user lifestyle and wellness-related data saved in the database can be anonymized while retaining the relevant datapoints in the database. As an example, any identifying data can be removed while still retaining the user's physical characteristics. As an alternative to the anonymizing the user data in the

database, the user data may be encrypted prior to storage with only the user being in possession of the encryption key which would be required to decrypt the user data. The user can then control who or what can access his or her data by providing or withholding the encryption key as he or she sees fit.

[0019] The data processor 50 may take the form of a server coupled to the database 20. Depending on the configuration of the system, the server used as the data processor 50 may be the same server that contains the database 20. Alternatively, the data processor 50 and the database 20 may be geographically separate. In cloud-based implementations of the system, the database may be on servers geographically remote from servers operating as the data processor.

[0020] The data processing device 60 may be any data processing device such as a tablet, a personal computer, a smartphone, or any other device which may be used to present data or information to a user. It should be clear that the bulk if not all of the processing of the user data and the candidate data is performed by the data processor 50 in Figure 1. The data processing device 60 would mainly serve as a destination device that receives the results of the processing of both the user data and the candidate data. As noted above, the data processing device may be operated by the user or by someone working with the user such as a doctor, personal trainer, or a suitable health, wellness, or fitness worker.

[0021] Regarding the processing of the user lifestyle and wellness-related data (data derived from the user) and

the candidate lifestyle and wellness-related data (the data in the database that are from other users or other individuals whose data is available), the processing may involve a number of factors and may take a number of different forms.

[0022] Processing may involve multivariate comparisons, statistical analyses, meta-analyses, and other analytical processes. As well, processing may involve tracking both candidate data and user data over time. In addition, this tracking may involve tracking correlations, differences, and any other comparisons between the user data and the candidate data. The processing may, depending on the configuration, produce a wellness or status measure for the user based on the comparison of the user data with the candidate data. The processing can be performed in real-time to give the user the processing results with as little delay as possible. Such processing would ensure up-to-date data on the database. Users can then use the latest up-to-date candidate data in processing or comparing their own user data.

[0023] Alternatively, processing may not be overly complicated. The processing may be as simple as a direct comparison between the user lifestyle and wellness-related data and the candidate lifestyle and wellness-related data, with similar data points or readings being compared to determine if the user lifestyle and wellness-related data is within expected bounds relative to the candidate lifestyle and wellness-related data. As an example, the users blood pressure reading may be directly compared with the blood pressure reading for individuals in the database

whose parameters (age, physical parameters, activity level, physical condition) correspond to those of the user. Thus, a male user who is 37 years old, weighing 180 lbs., exercises moderately three times a week but who is diabetic can have his blood pressure readings compared with candidate lifestyle and wellness-related data in the database from male individuals who are between the ages of 35-39, weighing 170-190 lbs., who exercise between 2-4 times a week, and who are diabetic. The 37 year old user can then determine if his blood pressure readings are within the range of the blood pressure readings for this group whose parameters are similar to his. Of course, the same user may also wish to compare his lifestyle and wellness-related data against the lifestyle and wellness-related data for individuals who are slight younger or slightly older than him.

[0024] The processing may also involve photographic or video processing. As an example, a user may take a digital photograph of himself or of an aspect of himself (e.g. a lesion on his skin or a wound or the user's skin after the application of a specific lotion or cream). The digital photograph can then be uploaded to the database and compared with other digital photographs of similar subjects. Alternatively, the digital photograph may be used to derive data regarding the user (e.g. extrapolating or deriving the user's height or weight from a full body photograph) or regarding the subject of the digital photograph (e.g. size or color of a lesion or wound or the color/condition of the user's skin after the lotion or cream is applied). The digital photographs can be periodically updated and the characteristics derived from the digital

photographs or the photographs themselves can be tracked through time to provide a time-based record for comparison with earlier photographs or photographs from other users.

[0025] To determine which lifestyle and wellness-related data are to be retrieved from the database and are to be compared/processed with the user lifestyle and wellness-related data, a comparison profile can be used. A comparison profile would detail the parameters to be used in selecting candidate lifestyle and wellness-related data from the database. If specific candidate data indicates that the person from whom the data was derived does not meet the comparison profile, then that candidate data is not selected. On the other hand, if the candidate data indicates that the person from whom the candidate data was derived does meet the comparison profile, then that candidate data is selected. The comparison profile may, depending on the configuration, be automatically generated or it may be manually generated by a user or by someone acting with the user (e.g. the user's doctor, personal trainer, etc.). The comparison profile may include parameters such as age, height, weight, level of physical activity, blood pressure, blood sugar level, pre-existing physical conditions (e.g. diabetes, hypertension, vision impairment, etc.), hair color, eye color, gender, and any other health, physique, appearance, or physical condition parameter. For cases where women as desiring to compare their physical situation with others who might be trying to conceive, the comparison profile (as well as the user data and candidate data) may include biochemical markers (e.g. hormone concentrations),

start of menstruation, duration of menstruation, physical characteristics of body fluids, and galvanic skin response. For clarity, the parameters in the comparison profile may use ranges in combination with specific values. Thus, the comparison profile may look for candidate data for individuals having a specific blood pressure range but whose eyes are specifically colored hazel.

[0026] As noted above, the comparison profile may be user-selected or, depending on the configuration, be automatically generated. Thus, a user's user data may, by default, be automatically compared with candidate data for individuals in the user's age/health condition group. Alternatively, the comparison profile may be created to select candidate data for individuals who are from a select and very specific group as defined by the comparison profile. Users can then use the comparison profile to sift through potentially large amounts of candidate data to find data that meets the user's very specific needs. Any parameter relating to health, lifestyle, or wellness may be used in the comparison profile. In addition to the parameters already mentioned above, these parameters may include: socioeconomic factors, familial traits or factors, geographic location, interests, or other factors which are not typically associated with a given classification.

[0027] After the processing has been completed, the results are then sent to a destination device. The results may be sent to the user's device of choice (e.g. personal computer, tablet computer, or smartphone) or to a data processing device at a facility used by the

user (e.g. clinic, hospital, health club, or gym). It should be noted that the results may be presented in any format usable by the data processing device. As such, the results may be sent in table format, as pure data, or in XML or HTML format.

[0028] As noted above, the comparison of physical traits and/or physiological conditions/traits between users and data in the database may be for various purposes. The comparison may be for women who are trying to conceive, individuals who are trying to lose weight, or, indeed anyone who wishes to compare their efforts at lifestyle changes with others in the same situation.

[0029] The steps in a method according to one aspect of the invention are illustrated in the flowchart of Figure 2. Step 100 is that of receiving user lifestyle and wellness-related data from a data source. The lifestyle and wellness-related data may be received automatically or it may be transmitted from the data source manually. As noted above, the user data may come from questionnaires or surveys manually completed by the user, or it may be automatically gathered from sensors coupled to the user.

[0030] Step 110 is that of determining a comparison profile. The comparison profile may be created by the user or by someone working with the user. Alternatively, the comparison profile may be a default comparison profile. Such a default comparison profile may be set to a profile that matches the user's profile and may be derived from the user data.

[0031] Once the comparison profile has been determined, the database is then accessed in step 120. The database is searched for candidate data which matches at least part of the comparison profile (step 130). Of course, depending on the configuration, candidate data which are selected from the database may match all, some, or just part of the comparison profile. The match for the comparison profile may be based on the profile of the individual from whom the candidate profile was derived or the match may be based on the actual candidate data.

[0032] With the relevant candidate data now selected, the candidate data and the user data are then analyzed (step 140). As noted above, the analysis may involve anywhere from a simple comparison to complex statistical and multivariate analysis. After the analysis is done, the results are then sent to a data processing device used by the user or someone working with the user (step 150). It should be noted that the data processing device which receives the results may be user operated or operated by a health/fitness/wellness worker working with the user. In one variant, the user can designate which device receives the results of the processing.

[0033] The method steps of the invention may be embodied in sets of executable machine code stored in a variety of formats such as object code or source code. Such code is described generically herein as programming code, or a computer program for simplification. Clearly, the executable machine code may be integrated with the code of other programs, implemented as subroutines, by

external program calls or by other techniques as known in the art.

[0034] The embodiments of the invention may be executed by a computer processor or similar device programmed in the manner of method steps, or may be executed by an electronic system which is provided with means for executing these steps. Similarly, an electronic memory means such computer diskettes, CD-ROMs, Random Access Memory (RAM), Read Only Memory (ROM) or similar computer software storage media known in the art, may be programmed to execute such method steps. As well, electronic signals representing these method steps may also be transmitted via a communication network.

[0035] Embodiments of the invention may be implemented in any conventional computer programming language. For example, preferred embodiments may be implemented in a procedural programming language (e.g."C") or an object oriented language (e.g."C++"). Alternative embodiments of the invention may be implemented as pre-programmed hardware elements, other related components, or as a combination of hardware and software components. Embodiments can be implemented as a computer program product for use with a computer system. Such implementations may include a series of computer instructions fixed either on a tangible medium, such as a computer readable medium (e.g., a diskette, CD-ROM, ROM, or fixed disk) or transmittable to a computer system, via a modem or other interface device, such as a communications adapter connected to a network over a medium. The medium may be either a tangible medium (e.g., optical or electrical communications lines) or a medium implemented with

wireless techniques (e.g., microwave, infrared or other transmission techniques). The series of computer instructions embodies all or part of the functionality previously described herein. Those skilled in the art should appreciate that such computer instructions can be written in a number of programming languages for use with many computer architectures or operating systems. Furthermore, such instructions may be stored in any memory device, such as semiconductor, magnetic, optical or other memory devices, and may be transmitted using any communications technology, such as optical, infrared, microwave, or other transmission technologies. It is expected that such a computer program product may be distributed as a removable medium with accompanying printed or electronic documentation (e.g., shrink wrapped software), preloaded with a computer system (e.g., on system ROM or fixed disk), or distributed from a server over the network (e.g., the Internet or World Wide Web). Of course, some embodiments of the invention may be implemented as a combination of both software (e.g., a computer program product) and hardware. Still other embodiments of the invention may be implemented as entirely hardware, or entirely software (e.g., a computer program product).

[0036] A person understanding this invention may now conceive of alternative structures and embodiments or variations of the above all of which are intended to fall within the scope of the invention as defined in the claims that follow.

We claim:

1. A method for determining whether a user's experiences relating to lifestyle and wellness are common among a plurality of other individuals, the method comprising:

a) receiving user data relating to lifestyle and wellness, said user data being gathered from said user;

b) determining a comparison profile;

c) accessing a database of database data, said database of database data containing data relating to lifestyle and wellness for said plurality of other individuals;

d) selecting candidate data from said database, said candidate data being related to lifestyle and wellness for individuals matching at least a predetermined portion of said comparison profile;

e) analyzing said candidate data selected in step d) and said user data;

f) sending results of said analysis to a destination.

2. A method according to claim 1 wherein step e) comprises comparing said candidate data with said user data.

3. A method according to claim 1 wherein step b) comprises creating said comparison profile based on a profile of said user.

4. A method according to claim 1 wherein step b) comprises creating said comparison profile based on input from said user.

5. A method according to claim 1 wherein said user data is received from sensors coupled to said user.

6. A method according to claim 1 wherein said user data is derived from at least one questionnaire completed by said user.

7. A method according to claim 1 wherein said user data and said candidate data includes at least one of:

- heart rate,
- weight,
- level of physical activity,
- blood glucose level,
- diet related data,
- temperature,
- biochemical markers (e.g. hormone concentrations),
- start of menstruation,
- duration of menstruation,
- physical characteristics of body fluids,
- galvanic skin response.

8. A method according to claim 1 wherein step e) includes determining a comparison over time between said user data and said candidate data selected in step d).

9. A method according to claim 1 including the step of adding said user data to said database.

10. A system for analyzing data relating to lifestyle and wellness, the system comprising:

- a database for storing user data and candidate data, said user data and candidate data both relating to lifestyle and wellness;

- a data processor for processing said user data and said candidate data;

wherein said system is used in a method for determining whether a user's experiences relating to lifestyle and wellness are common among a plurality of other individuals, the method comprising:

a) receiving said user data, said user data being gathered from said user;

b) determining a comparison profile;

c) accessing said database, said database containing said candidate data for said plurality of other individuals;

d) selecting specific candidate data from said database, said specific candidate data being data relating to lifestyle and wellness for individuals matching at least a predetermined portion of said comparison profile;

e) analyzing said specific candidate data selected in step d) and said user data;

f) sending results of said analysis to a destination device.

11. A system according to claim 10 wherein said data source comprises sensors coupled to said user.

12. A system according to claim 10 wherein said data processor processes said user data and said candidate data in real time.

13. Computer readable medium having encoded thereon computer readable and computer executable instructions which, when executed, implements a method for determining whether a user's experiences relating to lifestyle and wellness are common among a plurality of other individuals, the method comprising:

a) receiving user data which relates to lifestyle and wellness, said user data being gathered from said user;

b) determining a comparison profile;

c) accessing a database of database data, said database of database data containing data relating to lifestyle and wellness for said plurality of other individuals;

d) selecting candidate data from said database, said candidate data being data relating to lifestyle and wellness for individuals matching at least a predetermined portion of said comparison profile;

e) analyzing said candidate data selected in step d) and said user data;

f) sending results of said analysis to a destination device.

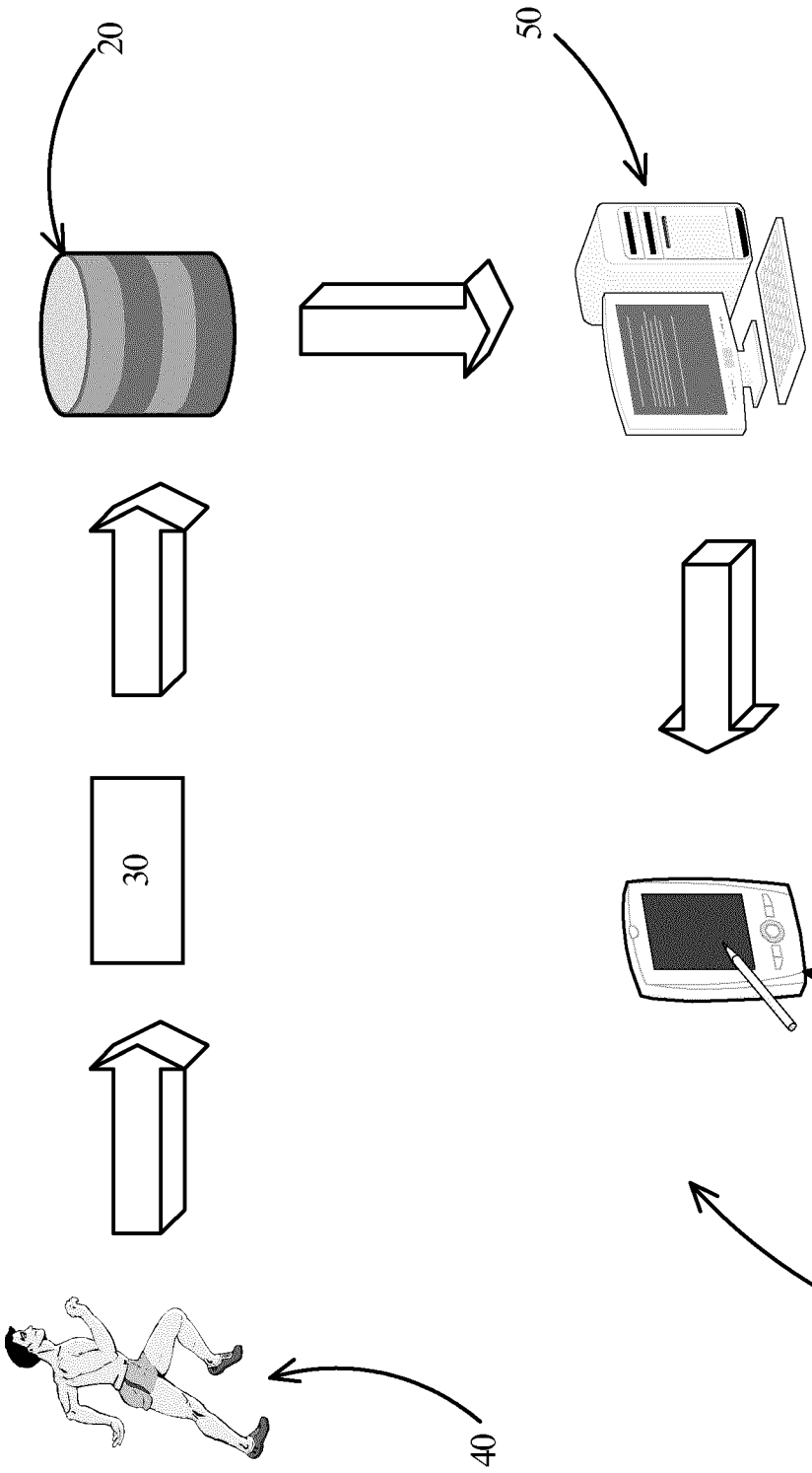


FIGURE 1

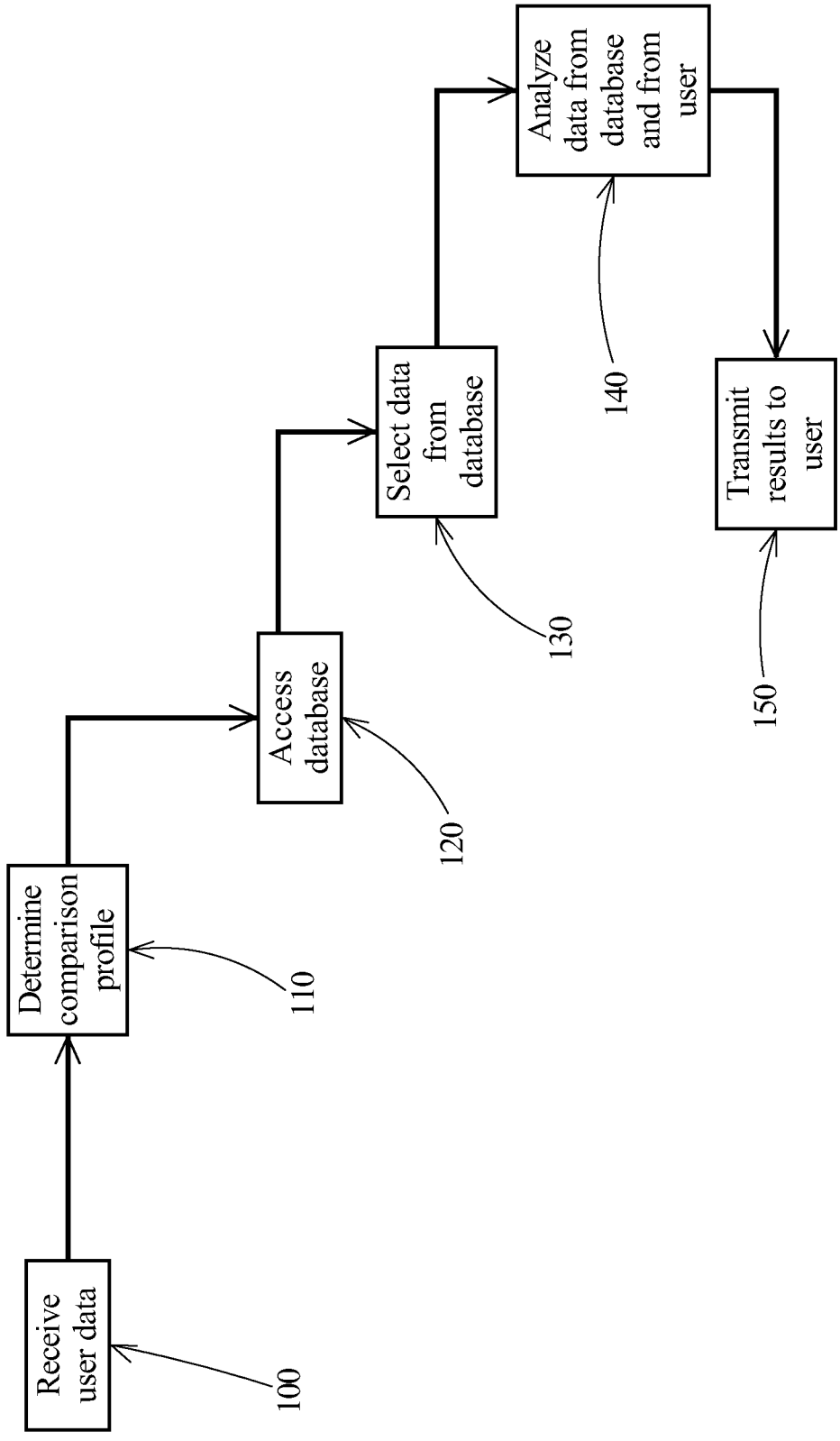
Receive user data
100
Determine comparison profile
110
Access database
120
Select data from database
130
Analyze data from database and from user
140
Transmit results to user
150

FIGURE 2

**INTERNATIONAL SEARCH REPORT**

International application No.
PCT/CA2013/050687

A. CLASSIFICATION OF SUBJECT MATTER

IPC: ***G06Q 50/22*** (2012.01) , ***A61B 5/00*** (2006.01) , ***G06F 19/00*** (2011.01) , *G06F 17/30* (2006.01)

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC: ***G06Q 50/22*** (2012.01) , ***A61B 5/00*** (2006.01) , ***G06F 19/00*** (2011.01) , *G06F 17/30* (2006.01)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic database(s) consulted during the international search (name of database(s) and, where practicable, search terms used)

Canadian Patents Database and Total Patent

Keywords: health, wellness, lifestyle, compare, match, analyze, user, population, database, record, questionnaire, sensor

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|---|---|---|
| X | US 2002/0156654 A1 (ROE, D.C. et al.) 24 October 2002 (24-10-2002) abstract; figures 1, 3, and 4; Table I and II on pages 2 and 3; paragraphs [0003], [0007], [0016-0019], [0021]-[0027], [0031-0032], [0034]-[0044], [0050]-[0053], [0056]-[0059], [0063]-[0066], and [0068]-[0074] | 1-13 |
| A | US 2009/0125333 A1 (HEYWOOD, B., et al.) 14 May 2009 (14-05-2009) whole dcoument | 1-13 |
| A | US 2004/0122704 A1 (SABOL, J.M., et al.) 24 June 2004 (24-06-2004) whole document | 1-13 |

[ ] Further documents are listed in the continuation of Box C.

[X] See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

| Date of the actual completion of the international search | Date of mailing of the international search report |
|---|---|
| 23 October 2013 (23-10-2013) | 29 October 2013 (29-10-2013) |

| Name and mailing address of the ISA/CA | Authorized officer |
|---|---|
| Canadian Intellectual Property Office<br>Place du Portage I, C114 - 1st Floor, Box PCT<br>50 Victoria Street<br>Gatineau, Quebec K1A 0C9<br>Facsimile No.: 001-819-953-2476 | Lewis Robart (819) 997-1055 |

**INTERNATIONAL SEARCH REPORT**
Information on patent family members

International application No.
PCT/CA2013/050687

| Patent Document Cited in Search Report | Publication Date | Patent Family Member(s) | Publication Date |
|---|---|---|---|
| US2002156654A1 | 24 October 2002 (24-10-2002) | US2002156654A1 | 24 October 2002 (24-10-2002) |
| | | US7835925B2 | 16 November 2010 (16-11-2010) |
| | | US2011035234A1 | 10 February 2011 (10-02-2011) |
| US2009125333A1 | 14 May 2009 (14-05-2009) | AU2008310575A1 | 16 April 2009 (16-04-2009) |
| | | AU2008310576A1 | 16 April 2009 (16-04-2009) |
| | | AU2008310577A1 | 16 April 2009 (16-04-2009) |
| | | CA2702402A1 | 16 April 2009 (16-04-2009) |
| | | CA2702406A1 | 16 April 2009 (16-04-2009) |
| | | CA2702408A1 | 16 April 2009 (16-04-2009) |
| | | EP2210226A1 | 28 July 2010 (28-07-2010) |
| | | EP2211687A1 | 04 August 2010 (04-08-2010) |
| | | EP2211687A4 | 21 August 2013 (21-08-2013) |
| | | EP2211690A1 | 04 August 2010 (04-08-2010) |
| | | JP2011501276A | 06 January 2011 (06-01-2011) |
| | | JP2011501844A | 13 January 2011 (13-01-2011) |
| | | JP2011501845A | 13 January 2011 (13-01-2011) |
| | | US8160901B2 | 17 April 2012 (17-04-2012) |
| | | US2009131758A1 | 21 May 2009 (21-05-2009) |
| | | US2009144089A1 | 04 June 2009 (04-06-2009) |
| | | US2013066652A1 | 14 March 2013 (14-03-2013) |
| | | WO2009049276A1 | 16 April 2009 (16-04-2009) |
| | | WO2009049277A1 | 16 April 2009 (16-04-2009) |
| | | WO2009049278A1 | 16 April 2009 (16-04-2009) |
| US2004122704A1 | 24 June 2004 (24-06-2004) | AU2003291001A1 | 29 July 2004 (29-07-2004) |
| | | BR0316899A | 25 October 2005 (25-10-2005) |
| | | CA2508565A1 | 22 July 2004 (22-07-2004) |
| | | CN1748218A | 15 March 2006 (15-03-2006) |
| | | EP1576522A2 | 21 September 2005 (21-09-2005) |
| | | JP2006511881A | 06 April 2006 (06-04-2006) |
| | | KR20050085711A | 29 August 2005 (29-08-2005) |
| | | MXPA05006607A | 30 September 2005 (30-09-2005) |
| | | WO2004061743A2 | 22 July 2004 (22-07-2004) |
| | | WO2004061743A3 | 26 May 2005 (26-05-2005) |