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(71) Applicant *(for all designated States except US)*: **KONINKLIJKE PHILIPS ELECTRONICS N.V.** [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **MAEUELER, Sebastian** [DE/NL]; c/o High Tech Campus Building 44, NL-5656 AE Eindhoven (NL). **STUT, Wilhelmus Johannes Joseph** [NL/NL]; c/o High Tech Campus Building 44, NL-5656 AE Eindhoven (NL). **LACROIX, Joyca Petra Wilma** [NL/NL]; c/o High Tech Campus Building 44, NL-5656 AE Eindhoven (NL).

(74) Agents: **COOPS, Peter** et al.; Philips Intellectual Property & Standards, High Tech Campus Building 44, NL-5656 AE Eindhoven (NL).

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(54) Title: METHOD OF GENERATING A PERSONALIZED EXERCISE PROGRAM FOR A USER

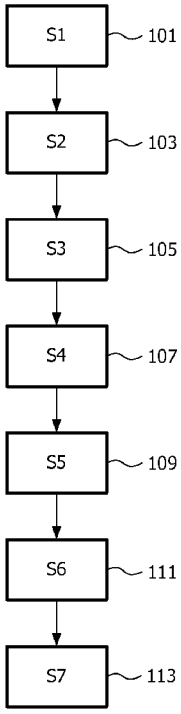

FIG. 1

(57) Abstract: This invention relates to a method of generating a personalized exercise program for a user. Fitness related data indicating an initial physical fitness shape of the user are acquired from the user and used for constructing a fitness proposal for the user. The constructing includes comparing the acquired fitness related data with reference fitness data for corresponding fitness categories, where the reference fitness data are selected in accordance to the acquired fitness related data and indicate a reference fitness shape for the user. A deviation indicator is determined for each of the categories indicating the deviation between the acquired fitness related data and the reference data within the same fitness category. The deviation indicators are subsequently presented to the user so as to indicate the initial physical fitness shape of the user compared to the reference fitness shape for each of the categories. First input data are then received from the user indicating the user's target level for each of the categories, and finally an exercise plan is composed based on the received user input, the composing being performed in accordance to a set of rules.

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Method of generating a personalized exercise program for a user

FIELD OF THE INVENTION

The present invention relates to a method and a system of generating a personalized exercise program for a user.

BACKGROUND OF THE INVENTION

Compelling evidence exists that exercising has a positive impact on health and well-being. Nevertheless, in spite of the availability of many exercise tools and facilities, many people worldwide fail to exercise at a level that is recommended to maintain a good physical fitness level according to scientifically accepted guidelines

Since physical fitness is not a one-dimensional concept, but in fact comprises several categories like cardiovascular endurance, muscle status and function, flexibility, coordination, body composition and some more, it's quite obvious that users often are overcharged in developing their own efficient exercise programs. Each of these categories is related to physical fitness and the contribution of each of the categories to fitness, and therefore to health, varies across individuals. This underscores the need for a personalized exercise program. Moreover, a personalized program to exercise in a safe, effective and time-efficient manner would address the lack of time barrier, which is expressed by many people as one of the major reasons for not engaging in exercising.

So, to maintain a good health from a physical fitness point of view means to have at least a sufficient performance level in each of the categories of fitness. Scientific research has shown that after stratification, cardiovascular endurance, muscle status and function (strength), flexibility, balance and body composition seem to be the most relevant. For each individual the capabilities in each of these categories are developed differently. Since it is neither obvious nor trivial how to assess these, a serious exercise program would require a sound support to the user for a professionally-endorsed assessment of his physical fitness status covering each of the categories.

Based on the assessment, the user would be able to develop a well planned and efficient program that fits his/her own needs. To arrive at such a personalized and efficient exercise program, some additional information like different importance of the components

of physical fitness, training principles, safety rules etc. needs to be considered. Several references exist disclosing developing training programs for users.

US 2005164833 discloses providing a user with the flexibility of choosing their own personal trainer from a group of personal trainers and their own exercise routine to follow in order to get the desired physical body result. When the user chooses the area of interest the invention provides a sequence of exercise routines to follow on different gym equipment to achieve the desired result. The selected trainer graphically demonstrates the use of the gym equipment on the computing device of their choice and the user follows the exercise routine at their own pace and at a place and time of their own convenience. Although this reference allows a user to create up to some extent a personalized exercise routine the user will still need to consult a training- or health professional, which is often costly and unpractical.

The inventor of the present invention has appreciated that an improved system and a method for developing exercise programs is of benefit, and has in consequence devised the present invention.

SUMMARY DESCRIPTION OF THE INVENTION

It would be advantageous to achieve an improvement in generating a personalized program for a user that takes all necessary information into consideration. It would also be desirable to enable creating a personalized exercise plan such that the user no longer needs to consult a training- or health professional. In general, the invention preferably seeks to mitigate, alleviate or eliminate one or more of the above mentioned disadvantages singly or in any combination. In particular, it may be seen as an object of the present invention to provide a method and a system that solves the above mentioned problems, or other problems, of the prior art.

To better address one or more of these concerns, in a first aspect of the invention a method is provided of generating a personalized exercise program template for a user, comprising:

- acquiring fitness related data from the user indicating an initial physical fitness shape of the user, the acquired fitness related data being based on physical fitness results from a number of fitness tests undergone by the user in one or more fitness categories,
- constructing a fitness proposal plan for the user based on said collected fitness related data, the constructing including:

- comparing the acquired fitness related data with reference fitness data for corresponding fitness tests results in one or more corresponding fitness categories the reference fitness data being selected in accordance to said acquired fitness related data and indicate a reference fitness shape for the user,

- determining a deviation indicator for each of said categories indicating the deviation between the acquired fitness related data and said reference data within the same fitness category,

- presenting the deviation indicators to the user so as to indicate the initial physical fitness shape of the user compared to said reference fitness shape for each of said categories,

- receiving first input data from the user indicting the user's target effort for each of said categories, and

- composing an exercise program template for the user based on the received user input, the composing being performed in accordance to a set of rules indicating:

- distribution of said effort for each of said categories over exercise sessions, and

- exercise prescriptions for corresponding said categories and said sessions.

Accordingly, by receiving said first input data it is possible to create an individual exercise plan for the user based on personal results of a previous assessment of the user's physical fitness, where weaknesses and strengths of the user are taken into account, and where scientifically-based training principles are applied via said set of rules, as well as exercise scientific and behavioral knowledge. The exercise prescriptions describe as an example the number of sessions, length of the session, pauses between sessions, length of the program and also specifications within a session (intensity, pauses, repetition/duration etc.).

As an example, said distribution of efforts could suggest the following: The system recommends to the user to exercise in 3 fitness categories (endurance, strength and flexibility) based on the results of the previous fitness assessment. The amount of effort is also recommended by the system, but could be adjusted by the user according to his/her preferences. A possible distribution could be: Monday: 30 minutes endurance category and 10 minutes flexibility category. Thursday: 30 minutes strength category and 10 minutes flexibility category. This selection of categories and distribution of efforts plus prescriptions per category is based on a previous fitness assessment, scientific training principles as well as behavior change strategies and is called the exercise program template which is valid for a

certain period of time e.g. 12 weeks. The same applies for the other categories or combinations of those.

In one embodiment, said set of rules further indicate:

- exercise suggestions for the corresponding said categories and said sessions, the method further comprising,
- receiving second input data from the user (111) indicating the user's preferred exercises based on the exercise suggestions, and
- using the received second input data in composing a personalized exercise program.

By exercise suggestions is meant an exercise library from which the user can select exercises per fitness category via the second input data.

In one embodiment, the method further comprises receiving third input data from the user, the third input data being selected from:

- the moments the user wants to exercise,
- the durations the user wants to exercise at the exercise sessions,
- a duration of the exercise program,
- a combination of one or more of the above,

where the received third input data are used in composing a personalized exercise program. Based on these additional second and/or third input data, the user is given room for personal preferences or limitations by e.g. setting of behavioral fitness goals and raising commitment through a high level of user involvement, to come to a personalized fitness plan via the exercise program template. The moments are typically days in the week.

In one embodiment, the acquired fitness related data further include:

- the age of the user, or
- the gender of the user, or
- medical related data indicating the medical condition of the user, or
- psychological status of the user, or
- a combination of one or more of the above.

In one embodiment, said number of categories is selected from:

- endurance,
- strength,
- balance,
- flexibility,
- body composition,

- a combination of one or more of the above,

wherein each of said categories is scaled into two or more performance levels.

In a second aspect the invention relates to a computer program product for instructing a processing unit to execute the above mentioned method steps when the product is run on a computer.

In a third aspect the invention relates to a physical fitness system for generating a personalized exercise program template for a user, comprising.

- a first input unit for acquiring fitness related data from the user indicating an initial physical fitness shape of the user, the acquired fitness related data being based on physical fitness results from a number of fitness tests undergone by the user in one or more fitness categories,
- a processor for constructing a fitness proposal plan for the user based on said collected fitness related data, the constructing including:
  - comparing the acquired fitness related data with reference fitness data for corresponding fitness tests results in one or more corresponding fitness categories, the reference fitness data being selected in accordance to said acquired fitness related data and indicate a reference fitness shape for the user,
  - determining a deviation indicator for each of said categories indicating the deviation between the acquired fitness related data and said reference data within the same fitness category,
- a display for presenting the deviation indicators to the user so as to indicate the initial physical fitness shape of the user compared to said reference fitness shape for each of said categories,
- a second input unit for receiving first input data from the user indicting the user's target effort for each of said categories, and
- a processor for composing an exercise program template for the user based on the received user input, the composing being performed in accordance to a set of rules indicating:
  - distribution of said effort for each of said categories over exercise sessions, and
  - exercise prescriptions for the corresponding said categories and said sessions.

In one embodiment, said set of rules further indicate exercise suggestions for the corresponding said categories and said sessions, the system further comprises a third input unit for receiving second input data from the user indicating the user's preferred

exercises for each of the said exercise sessions in said exercise program template, where the processor uses the received second input data in composing a personalized exercise program.

In one embodiment, the system further comprises a fourth input unit for receiving third input data from the user, the third input data being selected from the moments the user wants to exercise, the durations the user wants to exercise at the exercise sessions, a duration of the exercise program, a combination of one or more of the above, where the received third input data are used in composing a personalized exercise program.

The aspects of the present invention may each be combined with any of the other aspects. These and other aspects of the invention will be apparent from and elucidated with reference to the embodiments described hereinafter.

BRIEF DESCRIPTION OF THE DRAWINGS

Embodiments of the invention will be described, by way of example only, with reference to the drawings, in which

Fig. 1 shows a flowchart of an embodiment of a method according to the present invention of generating a personalized exercise program template for a user,

Figs. 2a-d show an example of a graphical presentation of generating a personalized exercise program template for a user as discussed in relation to figure 1,

Fig. 3 depicts graphically one embodiment of the present invention where the user is given the option of filling out a template with exercises of his/her own choice,

Fig. 4 depicts graphically one embodiment of the present invention showing where a user interface is used for assisting the user in selecting the desired exercise intensity, and

Fig. 5 shows an embodiment of a physical fitness system according to the present invention for generating a personalized exercise program template for a user.

DESCRIPTION OF EMBODIMENTS

Figure 1 shows a flowchart of an embodiment of a method according to the present invention of generating a personalized exercise program template for a user.

In step (S1) 101, fitness related data are acquired from the user indicating an initial physical fitness shape of the user, the acquired fitness related data being based on physical fitness results from a number of fitness tests undergone by the user in one or more fitness categories. The categories may e.g. be selected from endurance, strength, balance, flexibility and body composition. Also, as will be discussed in more detail later, each of these

categories may be scaled into two or more performance levels. The fitness related data may further include data about the age of the user, gender, smoker/non-smoker, psychological status of the user etc.

In step (S2) 103, a fitness proposal plan is constructed for the user based on the collected fitness related data by comparing the acquired fitness related data with reference fitness data for corresponding fitness test results in one or more corresponding fitness categories. As an example, the reference fitness data may be selected for a user of the same age, same gender and with a similar medical history. The step (S2) further includes determining a deviation indicator for each of the categories which indicates the deviation between the acquired fitness related data and said reference data within the same fitness category.

In step (S3) 105, the deviation indicators are presented to the user so as to indicate the initial physical fitness shape of the user compared to said reference fitness shape for each of said categories. As will be discussed in more details later, this may e.g. be done by presenting pillars (e.g. one for endurance, one for strength, one for balance etc.) for the categories to the user where the height of each pillar shows how much the user deviates from the references fitness shape values.

In step (S4) 107, first input data are received from the user indicting the user's target effort for each of said categories. The user can accordingly adjust these pillars according to his/her preferences, abilities or limitations.

In step (S5) 109, an exercise program template is composed for the user based on the received user input. The composing is performed in accordance to a set of rules indicating the distribution of the effort for each of said categories over exercise sessions, and exercise prescriptions for the corresponding said categories and said sessions, e.g. number of sessions, length of the session, pauses between sessions, length of the program and also specifications within a session (intensity, pauses, repetition/duration etc.).

In one embodiment, said set of rules further indicate exercise suggestions for the corresponding said categories and said sessions meaning that the exercise suggestions are a kind of an exercise library from which the user can select exercises per fitness category.

The set of rules can be rules defined based on scientific training principles so that it makes sure that the distribution of the exercise sessions is correct (e.g. at least one resting day between training sessions addressing the same fitness category) and that the distribution of categories within each session is correct (e.g. running and upper body training on Monday, a cycling and lower body training on Wednesday, etc.).

In step (S6) 111, second input data are received from the user indicating the user's preferred exercises based on said exercise suggestions, where the received second input data are used in composing a personalized exercise program.

In step (S7) 113, third input data selected from the moments the user wants to exercise, the durations the user wants to exercise at the exercise sessions, a duration of the exercise program, a combination of one or more of the above, where the received third input data are used in composing a personalized exercise program.

These additional second and third data will accordingly also be taken into account in composing said personalized exercise program and thus additional requirements from the user may be taken into account, e.g. which days are preferred and the maximum time for each training session. However, since rules are applied to compose the exercise program template it will be ensured that the composing will be optimized for the user and in accordance to said scientific training principles.

Figure 2a-d shows an example of a graphical presentation of generating a personalized exercise program template for a user as discussed in relation to Figure 1.

Figure 2a shows a display 503 displaying indicating a fitness proposal plan after comparing fitness related data acquired from the user based on physical fitness assessment with reference fitness data for corresponding fitness tests results in one or more corresponding fitness categories. As depicted in figure 2a said deviation indicators are presented as pillars 200a-e where the height of the pillars corresponds to the size of the gap between the user's current level (determined in a previous fitness assessment) and a desired level (e.g. population average or healthy level) meaning that the higher the pillars are the larger is the gap between the user's current fitness level compared to the reference level.

Figure 2b shows where the user can enter said first input data at the display 503 by adjusting these efforts according to his/her preferences, interests, abilities or limitations by moving buttons 201a-e up or down via e.g. a mouse command or a tough button interface and the like. As an example, the user may think that due to previous injuries he/she can not focus too much on endurance, or the user may simply think that endurance is boring and therefore reduce this category. Thus, the user can move button 201 down, while keeping the remaining categories unchanged. Based on this first input data from the user, category endurance will be reduced whereas the remaining categories remain the same.

Figure 2c shows where the user can enter said third input data at the display 503 by graphically enter the times and durations he/she wants to exercise and subsequently trainings principles and exercise knowledge are applied to compose an exercise program

template for the user. As an example, if the user indicates two consecutive days a training scientific rationale (Principle of Supercompensation) may be applied to indicate why this is not optimal and recommends reconsidering exercising on other days. Assuming the user has fully accomplished the first 12-week program and chooses the same exercise times/durations for the second program another training principle (Principle of Overload) may be given to the user suggesting to increase the days per week or duration per session.

Figure 2d shows where an exercise program template has been composed and is displayed at the display 503 where the individual improvement areas of the user are considered as well as his/her availability during the week.

Example of composing an exercise plan:

i) The number of days per week the user wants to exercise is received.

ii) Data relating to the user's target effort are received, e.g. target effort for Balance, Strength, and Flexibility. The effort of Body Composition is split equally over the Endurance group and the Balance – Strength – Flexibility group (since body composition can be addressed by both Endurance and Strength exercises). These effort numbers are then converted to two percentages. When using 10 points for low effort, 20 for medium effort, and 30 for high effort, in the example above the relative efforts are Endurance: 30 points, Strength: 0, Balance: 30, Flexibility: 20, and Body Composition: 20. When dividing Body Composition over the 2 groups, this would lead to Endurance: 40 points and Bal/Str/Flx: 60 points, which corresponds to 40 and 60 percent respectively.

iii) The number of minutes to be spent on each of the two groups is calculated by using the percentages and the total number of minutes the user wants to exercise per week, e.g. 30 minutes endurance and 45 minutes Bal/Str/Flx.

iv) The exercise sessions are filled by the user. One strategy is: fill each session with one group of exercises (so either Endurance or Balance – Strength – Flexibility exercises), and assign different groups to consecutive sessions (to prevent that the same fitness dimension (such as Endurance) is addressed in consecutive days). In the example above this would lead to: 30 minutes endurance exercises on Tuesday, and 45 minutes Bal/Str/Flx exercises on Thursday. In some cases this may still lead to a situation that the same fitness dimension is addressed in consecutive days; in those cases the system recommends the user to vary the intensity of these exercise sessions (e.g. alternating anaerobic and aerobic endurance sessions). Another strategy is to address all exercise areas in

each session: in that case the amount of time per area per session corresponds to the percentages calculated in the previous step.

Figure 3 depicts graphically one embodiment of the present invention where the user is given the option of filling out a template with exercises of his/her own choice. The user is assisted and guided via the interface displayed at the display 503 by applying all necessary exercise- as well as behavioral knowledge. The example here shows only strength exercises, but this may just as well apply for all exercise areas picked. As an example, a care may be taken of a well chosen selection of exercises by e.g. dividing the body into 3 parts 301-303 and inviting the user to select exercises that address all parts. Also, a care may be taken of a well chosen selection of exercises that prevent/treat muscular imbalance by always addressing agonistic and antagonistic muscle groups.

Figure 4 depicts graphically one embodiment of the present invention showing where a user interface is displayed at the display 503 for assisting the user in selecting the desired exercise intensity (for strength exercises, and for endurance exercises without using a heart rate monitor). This may be done by asking the user to indicate his/her Rating of Perceived Exertion (RPE) at the end of each set on the scientifically validated Borg scale. In order to have a sufficient training stimulus to induce further physiological adaptations, it is required to terminate each set with an RPE level of 13 to 15 (no matter e.g. how many repetitions the user has done). If the indicated RPE level is below this level, it may be suggested to the user to increase the exercise intensity (e.g. by doing more repetitions or by using heavier weights), or to select more intense exercises (for this purpose each exercise in the exercise library is labeled either light, medium or heavy to provide the user with an indication about the difficulty).

Figure 5 shows an embodiment of a physical fitness system 500 according to the present invention for generating a personalized exercise program template for a user comprising a first input unit (I_U_1) 501, a processor (P) 502, said display (D) 503 and a second input unit (I_U_2) 504.

The first input unit (I_U_1) 501 acquiring fitness related data from the user indicating an initial physical fitness shape of the user, e.g. by letting the user undergo various fitness tests, e.g. strength and endurance exercises and by entering various information about the user (e.g. age and gender).

The processor (P) 502 constructs a fitness proposal plan for the user based on the collected fitness related data, where as discussed in relation to figure 1, the constructing includes comparing the acquired fitness related data with reference fitness data for

corresponding fitness tests results in one or more corresponding fitness categories. The reference fitness data is selected in accordance to the acquired fitness related data and indicate a reference fitness shape for the user. The processor further determines a deviation indicator for each of said categories indicating the deviation between the acquired fitness related data and said reference data within the same fitness category.

Said display (D) 503 is preferably operated by the processor (P) 502 and presents the deviation indicators, e.g. said pillars 200a-e, to the user so as to indicate the initial physical fitness shape of the user compared to the reference fitness shape for each of said categories.

The second input unit (I_U_2) 504 receives first input data from the user indicting the user's target effort for each of said categories. As discussed in relation to figures 2-3, the second input unit (I_U_2) 504 may be integrated into the display (D) 503, e.g. as touch button sensors, speech sensors and the like that receives the first input data from the user via e.g. a touch button command or speech command. These data are accordingly collected and used by the processor (P) 502 for composing an exercise program template for the user based on the received user input. As discussed in relation to figure 1, the composing is performed in accordance to a set of rules indicating distribution of said effort for each of said categories over exercise sessions, and exercise prescriptions for the corresponding said categories and said sessions. Said set of rules may further indicate exercise suggestions for the corresponding said categories and said sessions or an exercise library from which the user can select exercises per fitness category.

The system further comprise a third and a fourth input unit (not shown) for receiving said second and/or third input data from the user (see in relation to figure 1). This data may e.g. include user's preferred exercises for each of the said exercise sessions in said exercise program template and/or the moments the user wants to exercise, the durations the user wants to exercise at the exercise sessions, a duration of the exercise program, number of sessions, length of the session, pauses between sessions, length of the exercise program, or a combination of one or more of the above. The second and/or third input unit may be one and the same input unit and even be the same input unit as said second input unit (I_U_2) 504, i.e. sensors that are integrated into said display (D) 503, or speech command sensors and the like. The processor (P) 502 uses the received third and/or fourth input data in composing a personalized exercise program.

Certain specific details of the disclosed embodiment are set forth for purposes of explanation rather than limitation, so as to provide a clear and thorough understanding of

the present invention. However, it should be understood by those skilled in this art, that the present invention might be practiced in other embodiments that do not conform exactly to the details set forth herein, without departing significantly from the spirit and scope of this disclosure. Further, in this context, and for the purposes of brevity and clarity, detailed descriptions of well-known apparatuses, circuits and methodologies have been omitted so as to avoid unnecessary detail and possible confusion.

Reference signs are included in the claims, however the inclusion of the reference signs is only for clarity reasons and should not be construed as limiting the scope of the claims.

CLAIMS:

1. A method of generating a personalized exercise program template for a user, comprising:

- acquiring fitness related data from the user (101) indicating an initial physical fitness shape of the user, the acquired fitness related data being based on physical fitness results from a number of fitness tests undergone by the user in one or more fitness categories,

- constructing a fitness proposal plan (103) for the user based on said collected fitness related data, the constructing including:

- comparing the acquired fitness related data with reference fitness data for corresponding fitness tests results in one or more corresponding fitness categories the reference fitness data being selected in accordance to said acquired fitness related data and indicate a reference fitness shape for the user,

- determining a deviation indicator for each of said categories indicating the deviation between the acquired fitness related data and said reference data within the same fitness category,

- presenting the deviation indicators to the user (105) so as to indicate the initial physical fitness shape of the user compared to said reference fitness shape for each of said categories,

- receiving first input data from the user (107) indicting the user's target effort for each of said categories, and

- composing an exercise program template for the user (109) based on the received user input, the composing being performed in accordance to a set of rules indicating:

- distribution of said effort for each of said categories over exercise sessions, and

- exercise prescriptions for corresponding said categories and said sessions.

2. A method according to claim 1, wherein said set of rules further indicate:

- exercise suggestions for the corresponding said categories and said sessions, the method further comprising,

- receiving second input data from the user (111) indicating the user's preferred

exercises based on the exercise suggestions, and

- using the received second input data in composing a personalized exercise program.

3. A method according to claim 1 or 2, further comprising receiving third input data (113) from the user, the third input data being selected from:

- the moments the user wants to exercise,
- the durations the user wants to exercise at the exercise sessions,
- a duration of the exercise program,
- a combination of one or more of the above,

where the received third input data are used in composing a personalized exercise program.

4. A method according to claim 3, wherein the acquired fitness related data further include:

- the age of the user, or
- the gender of the user, or
- medical related data indicating the medical condition of the user, or
- psychological status of the user, or
- a combination of one or more of the above

5. A method according to claim 1, wherein said number of categories is selected from:

- endurance,
- strength,
- balance,
- flexibility,
- body composition,
- a combination of one or more of the above,

wherein each of said categories is scaled into two or more performance levels.

6. A computer program product for instructing a processing unit to execute the method step of claim 1 when the product is run on a computer.

7. A physical fitness system (500) for generating a personalized exercise program template for a user, comprising:

- a first input unit (501) for acquiring fitness related data from the user indicating an initial physical fitness shape of the user, the acquired fitness related data being based on physical fitness results from a number of fitness tests undergone by the user in one or more fitness categories,

- a processor (502) for constructing a fitness proposal plan for the user based on said collected fitness related data, the constructing including:

- comparing the acquired fitness related data with reference fitness data for corresponding fitness tests results in one or more corresponding fitness categories, the reference fitness data being selected in accordance to said acquired fitness related data and indicate a reference fitness shape for the user,

- determining a deviation indicator (200a-e) for each of said categories indicating the deviation between the acquired fitness related data and said reference data within the same fitness category,

- a display (503) for presenting the deviation indicators to the user so as to indicate the initial physical fitness shape of the user compared to said reference fitness shape for each of said categories,

- a second input unit (504) for receiving first input data (201a-e) from the user indicting the user's target effort for each of said categories, and

- a processor (503) for composing an exercise program template for the user based on the received user input, the composing being performed in accordance to a set of rules indicating:

- distribution of said effort for each of said categories over exercise sessions, and

- exercise prescriptions for the corresponding said categories and said sessions.

8. A physical fitness system according to claim 7, said set of rules further indicate exercise suggestions for the corresponding said categories and said sessions, the system further comprising a third input unit for receiving second input data from the user (111) indicating the user's preferred exercises for each of the said exercise sessions in said exercise template, where the processor (502) uses the received second input data in composing a personalized exercise program.

9. A physical fitness system according to claim 7, further comprising a fourth input unit for receiving third input data (113) from the user, the third input data being selected from the moments the user wants to exercise, the durations the user wants to exercise at the exercise sessions, a duration of the exercise program, a combination of one or more of the above, where the received third input data are used in composing a personalized exercise program.

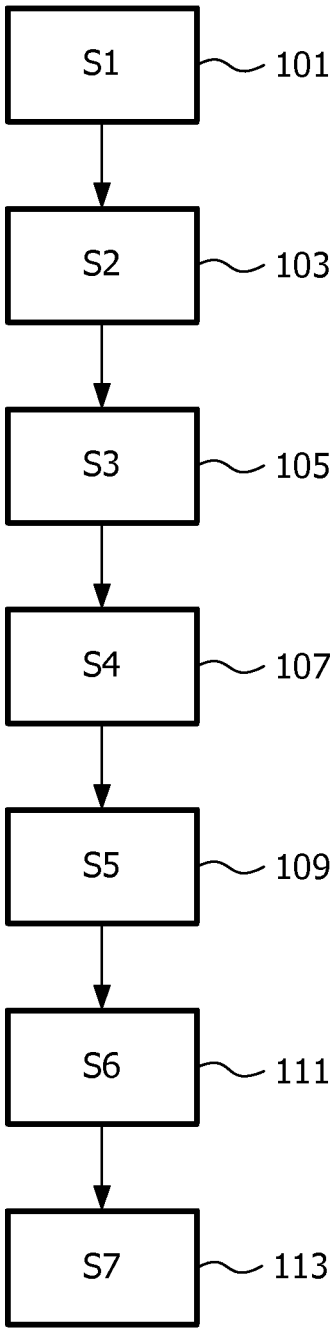

FIG. 1

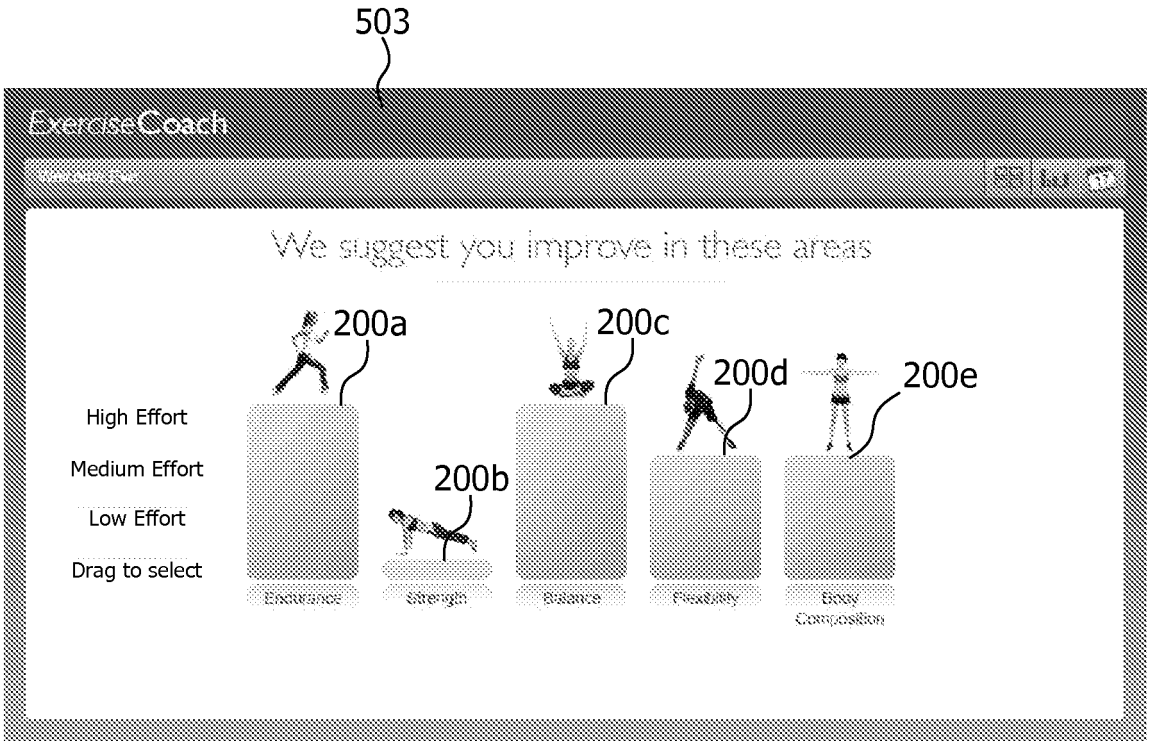
503
ExerciseCoach
We suggest you improve in these areas
200a
200c
200d
200e
200b
High Effort
Medium Effort
Low Effort
Drag to select
Endurance
Strength
Balance
Flexibility
Body Composition

FIG. 2a


503
ExerciseCoach
Customize wich area you want to improve
200a
201c
201d
201e
201b
High Effort
Medium Effort
Low Effort
Drag to select
Endurance
Strength
Balance
Flexibility
Body Composition

FIG. 2b

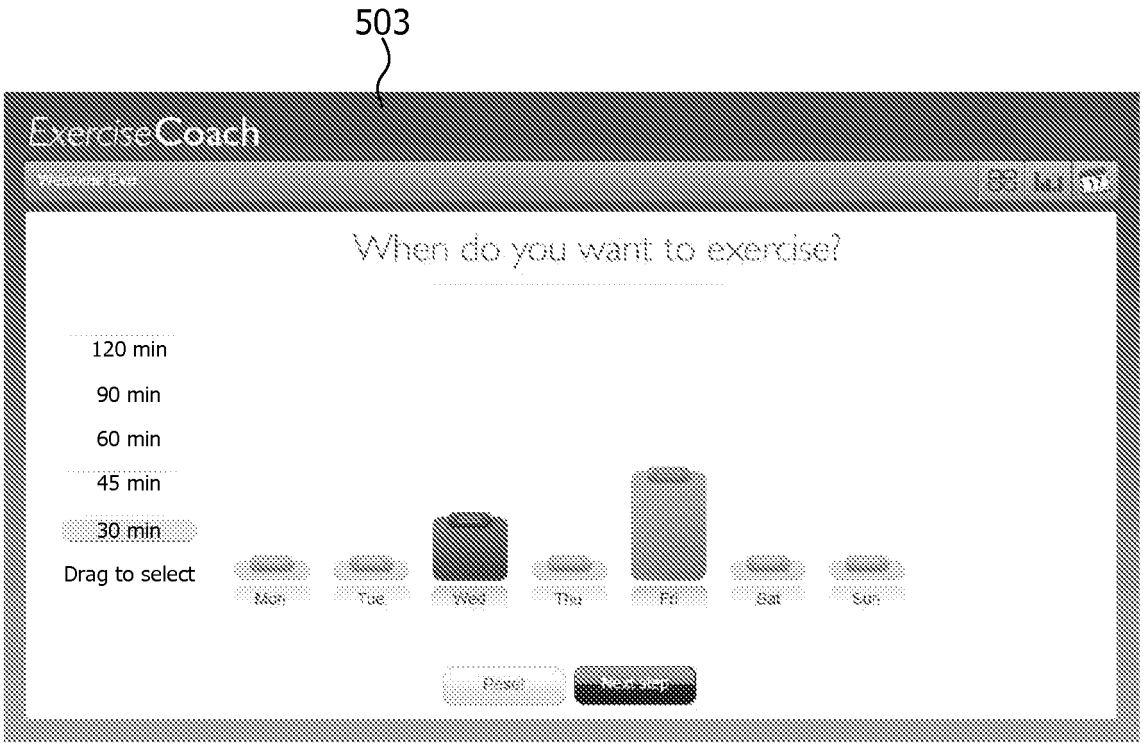
503
ExerciseCoach
When do you want to exercise?
120 min
90 min
60 min
45 min
30 min
Drag to select
Mon
Tue
Wed
Thu
Fri
Sat
Sun

FIG. 2c

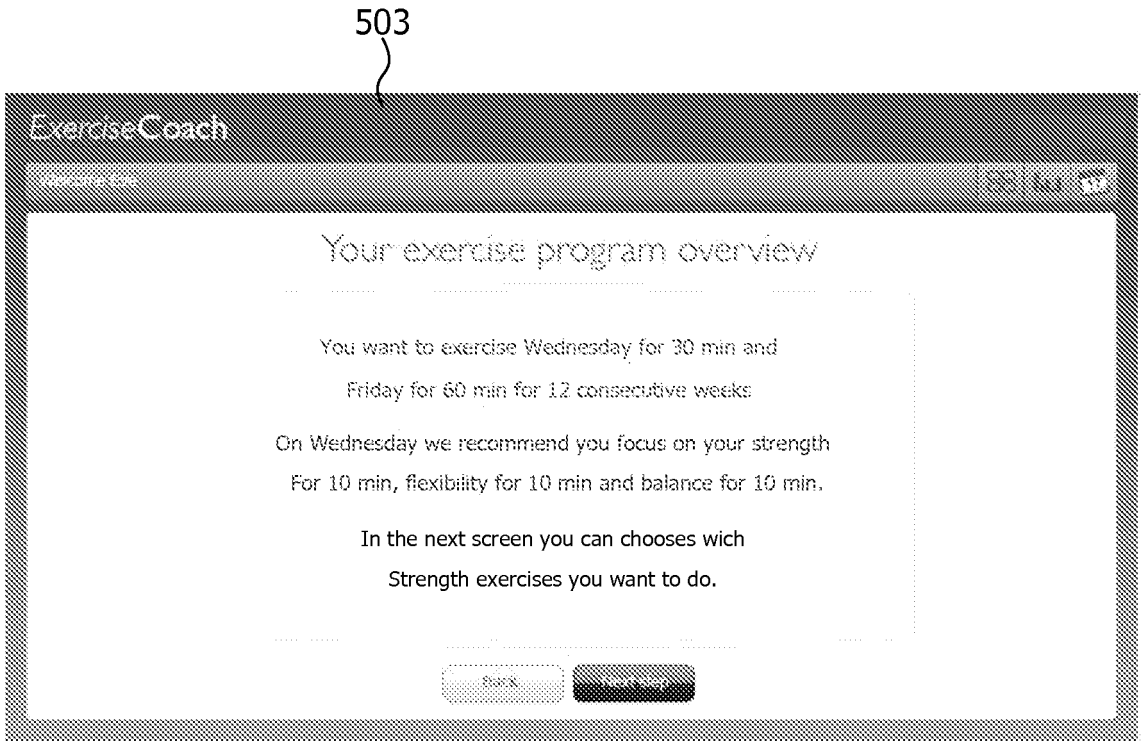
503
ExerciseCoach
Your exercise program overview
You want to exercise Wednesday for 30 min and
Friday for 60 min for 12 consecutive weeks
On Wednesday we recommend you focus on your strength
For 10 min, flexibility for 10 min and balance for 10 min.
In the next screen you can chooses wich
Strength exercises you want to do.

FIG. 2d

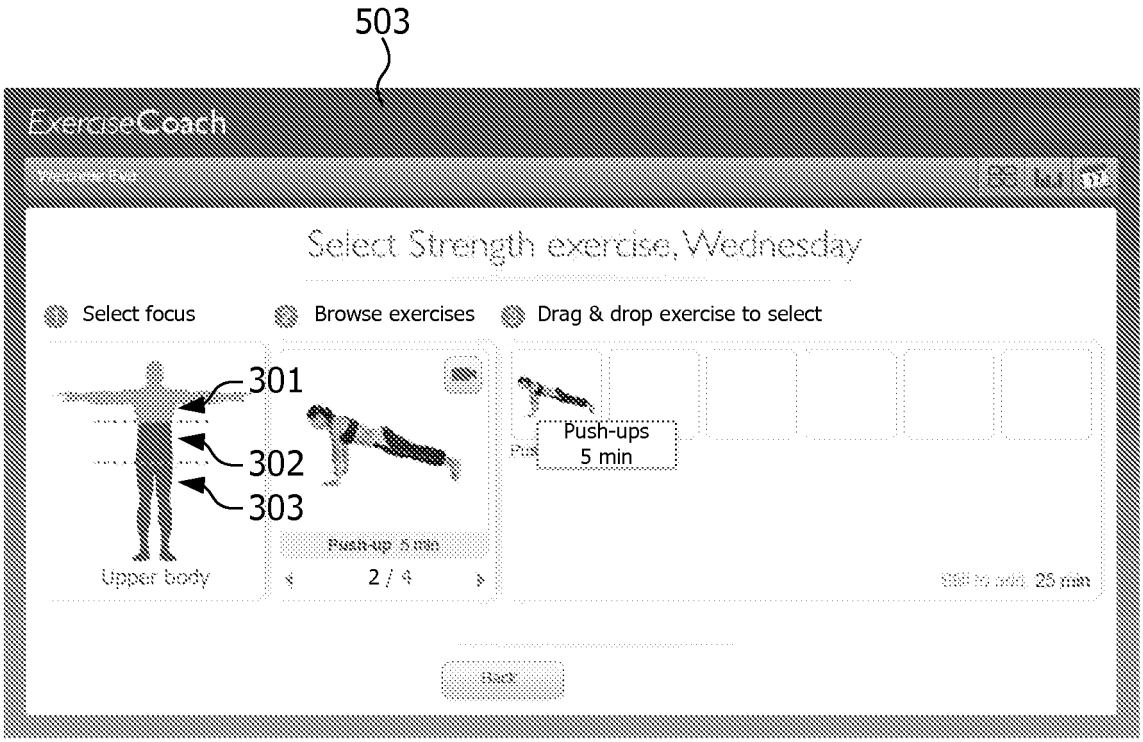

FIG. 3

RPE-scale (Borg)

6	no exertion at all
7	extremely light
8	
9	very light
10	
11	light
12	
13	somewhat hard
14	
15	hard (heavy)
16	
17	very hard
18	
19	extremely hard
20	maximal exertion

FIG. 4

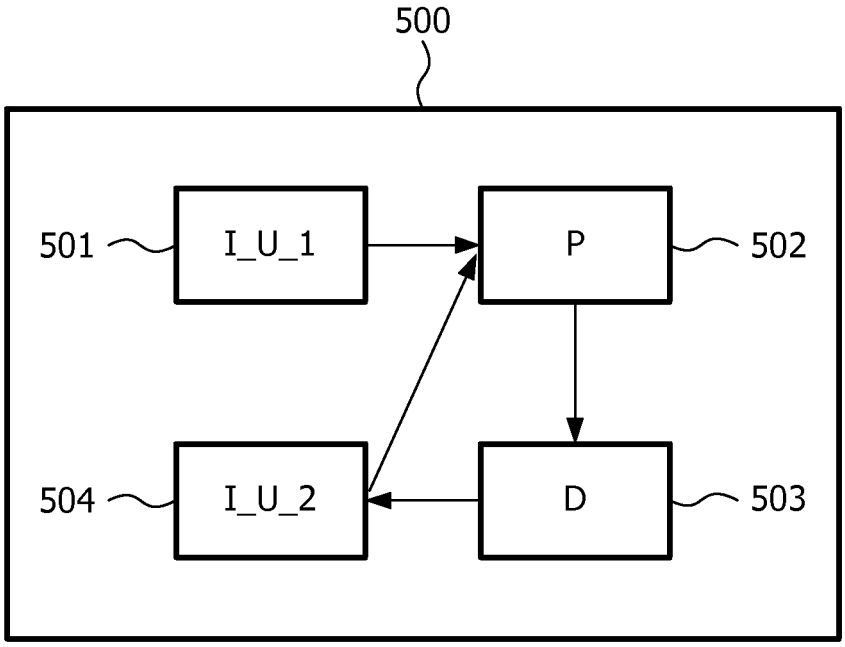

FIG. 5

INTERNATIONAL SEARCH REPORT

International application No
PCT/IB2010/054585

A. CLASSIFICATION OF SUBJECT MATTER
INV. G06F19/00 A63B24/00
ADD.

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)
G06F A63B

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

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 01/16855 A2 (GETFIT COM [US] VITALITY WEBSYSTEMS INC [US]) 8 March 2001 (2001-03-08) page 5, lines 1-20 page 15, line 9 - page 22, line 3 page 48, line 24 - page 51, line 7 figures 1, 4-6, 8-13 -----	1-9
A	EP 1 530 986 A2 (NOKIA CORP [FI]) 18 May 2005 (2005-05-18) * abstract figures 4,15-22 -----	1-9

☐ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents :

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"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

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"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
16 March 2011	24/03/2011

Name and mailing address of the ISA/	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Philips, Petra

Form PCT/ISA/210 (second sheet) (April 2005)

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/IB2010/054585

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 0116855 A2	08-03-2001	AU 6771400 A	26-03-2001
EP 1530986 A2	18-05-2005	US 2011014945 A1	20-01-2011
		US 2005202934 A1	15-09-2005