A workout system includes one or more exercise machines with adjustable difficulty settings. A wireless tracking device measures workout difficulty parameter values of a participant's workout and communicates the difficulty parameter values to the one or more exercise machines. The difficulty settings of the one or more exercise machines are adjusted based on the difficulty parameter values.
SYSTEM AND METHOD FOR AN INTERACTIVE EXERCISE ROUTINE

CROSS-REFERENCE TO RELATED APPLICATIONS


FIELD

[0002] The present application relates to an exercise workout system and method. More specifically, the present system and methods detail a workout system that links multiple participants in a workout scenario that provides motivation and competition.

BACKGROUND

[0003] Many people have difficulty maintaining the motivation necessary to exercise on a regular basis. This may be especially true for individual sports such as running, cycling, rowing, and elliptical training; even more so when the activity is performed on an exercise machine such as a treadmill. Many exercise facilities attempt to distract runners from the monotony of running in place by providing entertainment in the form of televisions with audio outputs connected to each treadmill. Many runners use music devices to entertain themselves while exercising. Accordingly, people using exercise machines tend to keep to themselves as they listen to their own music or a television program. Thus, even when surrounded by other people at the gym, using an exercise machine is often a solitary endeavor.

[0004] Attempts to make using exercise machines more interesting include tracking performance statistics for users. For example, U.S. Pat. No. 8,088,044, issued to Tehao et al. and assigned to Nike, Inc., provides an immediate, visual type of feedback to provide motivation for regular exercise. According to the '044 patent, experienced athletes and trainers have found that feedback provides many people with motivation to maintain a regular exercise program. When a person can directly experience the results provided by an exercise program, that person typically will be encouraged to continue exercising. Although this is a slight improvement over the standard speed and time data available on most exercise machines, the '044 patent does not address the monotony of a solitary workout.

[0005] One aspect of traditional exercise machines that contributes to the monotony of stationary exercise is the lack of a realistic or meaningful terrain profile. Traditional treadmills, for example, have a simple speed and incline setting that is usually static or follows an artificial preprogrammed profile. This issue is addressed by U.S. Pat. No. 8,029,415, issued to Ashby, et al. and assigned to ICON IP, Inc., by providing a system for simulating real world terrain on an exercise machine. The system is able to control one or more operating parameters of an exercise machine to simulate terrain found at a remote, real world location. The system includes images/videos of the remote, real world location. The images/videos can be synchronized with the exercise machine so that a user of the exercise machine is able to experience, via the changing operating parameters, the topographical characteristics of the remote, real world location as well as see images of the location.

SUMMARY

[0006] In one aspect of the disclosure a workout system includes one or more exercise machines with adjustable difficulty settings. A wireless tracking device measures workout difficulty parameter values of a remote participant’s workout and communicates the difficulty parameter values to the one or more exercise machines. The difficulty settings of the one or more exercise machines are adjusted based on the difficulty parameter values.

[0007] Another aspect of the disclosure may include any combination of the above mentioned features, and may further include the difficulty parameters including speed, incline, resistance, gear selection, and cadence.

[0008] Another aspect of the disclosure may include any combination of the above mentioned features, and may further include the exercise machine being a treadmill, elliptical machine, stationary bicycle, and a rowing machine.

[0009] Another aspect of the disclosure may include any combination of the above mentioned features, and may further include the tracking device in the form of a GPS.

[0010] Another aspect of the disclosure may include any combination of the above mentioned features, and may further include the tracking device in the form of at least one accelerometer.

[0011] Another aspect of the disclosure may include any combination of the above mentioned features and may further include at least one display device associated with the one or more exercise machines.

[0012] Another aspect of the disclosure may include any combination of the above mentioned features and may further include a remote camera system wearable by the remote participant and operative to transmit images to the at least one display device.

[0013] Another aspect of the disclosure may include any combination of the above mentioned features and may further include a display device mounted on each of the one or more exercise machines.

[0014] Another aspect of the disclosure may include any combination of the above mentioned features, and may further include each display device being operative to display the difficulty parameter values.

[0015] In one aspect of the disclosure a multi-participant workout system includes a group of exercise machines each with adjustable difficulty settings and including a display device. A wireless tracking device measures workout difficulty parameter values of a remote participant’s workout and communicates the difficulty parameter values to the group of exercise machines, where the wireless tracking device may include GPS. A remote camera system is wearable by the remote participant and transmits images to the display devices. The difficulty settings of the exercise machines are adjusted based on the difficulty parameter values.

[0016] Another aspect of the disclosure may include any combination of the above mentioned features, and may further include the difficulty parameters being speed, incline, resistance, gear selection, and cadence.

[0017] Another aspect of the disclosure may include any combination of the above mentioned features, and may further include the exercise machine being a treadmill, elliptical machine, stationary bicycle, and a rowing machine.

[0018] Another aspect of the disclosure may include any combination of the above mentioned features, and may further include the tracking device in the form of at least one accelerometer.
In one aspect of the disclosure a multi-participant workout method includes providing a group of interconnected exercise machines each with adjustable difficulty settings; designating a pacing participant and at least one following participant among a group of participants using the group of exercise machines; tracking performance parameters of the pacing participant; and adjusting the difficulty settings of the following participants' exercise machines based on the performance parameters of the pacing participant.

Another aspect of the disclosure may include any combination of the above mentioned features, and may further include the pacing participant being designated based on the lowest performance participant.

Another aspect of the disclosure may include any combination of the above mentioned features, and may further include the pacing participant being designated based on the highest performance participant.

Another aspect of the disclosure may include any combination of the above mentioned features, and may further include the performance parameters being selected from the group consisting of speed, incline, resistance, gear selection, and cadence.

Another aspect of the disclosure may include any combination of the above mentioned features, where the exercise machines may be selected from the group consisting of a treadmill, elliptical machine, stationary bicycle, and a rowing machine.

Another aspect of the disclosure may include any combination of the above mentioned features, where each exercise machine may include a display device and further comprising displaying the performance parameters of the pacing participant.

Another aspect of the disclosure may include any combination of the above mentioned features, where each exercise machine may include a camera.

These and other aspects of the disclosed technology and its various embodiments will be apparent after consideration of the Detailed Description and Figures herein.

BRIEF DESCRIPTION OF THE DRAWINGS

The accompanying drawings illustrate various embodiments of the present system and method and are a part of the specification. The illustrated embodiments are merely examples of the present system and method and do not limit the scope thereof.

FIG. 1 illustrates a workout system according to one embodiment;

FIG. 2 illustrates a workout system according to one embodiment;

FIG. 3 illustrates a workout system according to one embodiment; and

FIG. 4 is a functional block diagram of a workstation consistent with the technology of the present application.

Throughout the drawings, identical reference numbers designate similar, but not necessarily identical, elements.

DETAILED DESCRIPTION

Embodiments of the present system and method are described more fully below with reference to the accompanying figures, which form a part hereof and show, by way of illustration, specific embodiments. These embodiments are disclosed in sufficient detail to enable those skilled in the art to practice the system and method. However, embodiments may be implemented in many different forms and should not be construed as being limited to the embodiments set forth herein. The following detailed description is, therefore, not to be taken in a limiting sense.

The disclosed workout system provides an interactive group activity. Thus, the workout system allows a workout activity to be social. This social aspect of the workout system promotes competition, teamwork and thereby motivates the participants to not only show up and participate, but also to push themselves to beat their fellow participants and/or exceed their own previous performance benchmarks.

FIG. 1 represents a basic workout system according to an embodiment. In this case, system 10 includes an exercise machine, which in this case is a treadmill 20. Although the embodiments disclosed herein are discussed in the context of a treadmill, other exercise machines may be used such as, for example and without limitation, a treadmill, elliptical machine, stationary bicycle, rowing machine, and other exercise equipment. Workout system 10 may include multiple exercise machines, located either together or in separate remote locations that are all interconnected via their corresponding network connections. Treadmill 20 is interconnected to a network 12 via a wireless transceiver 32. Communication from the treadmill 20 is received by a receiver antenna 16, thereby connecting the treadmill to a server 14.

Treadmill 20 includes a base platform 22 having a tread 24. Tread 24 rotates about rollers and travels at a selected speed indicated by arrow "S". The platform may be raised and lowered as indicated by arrow "L" indicating incline. The speed and incline of the treadmill represent variable difficulty parameters, or operating parameters, which may be adjusted depending on the desired level of workout difficulty. Accordingly, the exercise machine includes adjustable difficulty settings corresponding to the difficulty parameters.

In this case, the exercise machine being a treadmill, the variable adjustable difficulty settings are speed and incline; however, for other exercise machines, the variables may be different. For example, difficulty parameters may include speed, incline, resistance, gear selection, and cadence depending on the exercise machine. The difficulty settings may be adjusted from either the control panel 26 or remotely from server 14 via the wireless transceiver 32. Adjustment of the exercise machine difficulty settings may be accomplished as described in U.S. Pat. No. 8,029,415, which describes a system for simulating real world terrain on an exercise device, the disclosure of which is hereby incorporated by reference in its entirety.

In this embodiment, treadmill 20 includes a control panel 26 which houses a display device 28. Display device 28 is operable to display images, operating parameters, difficulty parameters, performance statistics, and the like. Treadmill 20 also includes communication devices for two-way communication between multiple exercise machines. For example, treadmill 20 includes a camera 30, a speaker 37, and a microphone 33. Accordingly, video and audio communications may be transmitted between multiple exercise machines either locally or in remote locations.

As mentioned with respect to workout system 10, multiple exercise machines may be interconnected via network 12. For example, with reference to FIG. 2, a workout system 110 according to an embodiment is illustrated. In this case, workout system 110 includes a group of treadmills 20.
being used by multiple participants (1-4). As can be appreciated in the figure, participants 1-4 are co-located in a gym and the treadmills are interconnected via network 12. Workout system 110 also includes a wireless tracking device 40, which is attached to a remote participant 5. The wireless tracking device 40 is operative to measure the workout difficulty parameter values of the remote participant’s workout. The wireless tracking device may include a GPS and various accelerometers, which are capable of tracking the distance, speed, and incline of the remote participant’s workout over time. For example, as shown in the figure, remote participant 5 is running downhill over terrain 7. Accordingly, as the wireless tracking device 40 measures the workout difficulty parameter values, it is also capable of transmitting those values via network 12 to each of the treadmills 20. Accordingly, the difficulty settings for each treadmill may be adjusted in real time for speed and inclination, which matches that of the remote participant’s workout. Thus, the participants 1-4 are tracking a realistic terrain profile.

[0040] Wireless tracking device 40 may be attached to the remote participant 5 with a harness 42. Also, the harness and tracking device may support a remote camera system 50 for transmitting workout images back to the co-located participants 1-4 (as well as other remote participants). Remote camera system 50 includes camera 52 and a mounting arm 54. In this example, camera 52 is directed towards the remote participant 5 thereby providing face-to-face video communication with the remote participants 1-4. Also, other cameras may be mounted to the remote participant 5, such as a helmet camera or other remote camera location. For example, camera 52 may be activated when remote participant 5 wishes to address the group of participants 1-4. Alternatively, a helmet mounted camera, may be active the rest of the time to show the trail along which the participant is running or riding. Again, although this embodiment of the workout system discloses a runner with associated treadmills, another scenario might include a mountain biker interconnected with a group of stationary bicycles, each of which is adjustable for speed, gear selection, and incline based on the mountain biker’s actual terrain profile.

[0041] In this case remote participant 5 is equipped with a microphone 44, which is operative to provide audio communication via network 12 back to the participants 1-4. The audio and video communication originating from remote participant 5 may be displayed to each participant 1-4 via the display 28 and speaker 37 disposed on each treadmill 20. Alternatively, a common display device 34 associated with the exercise machines may be provided in a co-located venue such as the gym. Display device 34 may be associated with speakers 36, all of which provide a common view of the remote participant’s workout. In this case, display device 34 is a flat-screen television and includes an image that represents video from the remote participant 5. As indicated, the display device 34 and speakers 36 may send and receive data through the wireless transceiver 32. However, other connection means may be used as well.

[0042] FIG. 3 illustrates a multi-participant workout system 210 according to an embodiment. Multi-participant workout system 210 includes a group of treadmills 20, each of which is used by a participant 201-204. As with the embodiments described above, each treadmill 20 is interconnected via its wireless transmitter 32 and connected via network 12 to a server 14. In this embodiment, a pacing participant is designated from among the participants 201-204, and the remaining participants are designated as following participants. In one case, the lowest-performing participant may be selected as the pacing participant. For example, participant 201 is slower than the remaining participants 202-204 and is designated as the pacing participant. Accordingly, the speed and inclination of each treadmill corresponding to participants 202-204 is adjusted according to the workout difficulty settings of pacing participant’s 201 treadmill. By linking all of the participants’ difficulty settings, the workout system provides a social aspect to the workout, which encourages motivation. In another case, the pacing participant is designated based on the highest-performing participant. This scenario provides motivation for the slower participants to keep up with the faster ones.

[0043] The determination of the lowest- and highest-performing participants may be based on historical data from previous workouts, which is stored on server 14. As an alternative, a pre-workout or qualifying period may be designated in which each participant sets their own pace from which the workout system chooses the pacing participant based on performance criteria, such as the lowest- or highest-performance.

[0044] Although each treadmill and participant are shown in a co-located arrangement in FIG. 3, other remote participants may also be interconnected via network 12 and may communicate with the other participants via their camera 30 and display device 28 and may also communicate via speaker 37 and microphone 33 for each of their treadmills 20.

[0045] Also contemplated herein is a multi-participant workout method. The method includes providing a group of interconnected exercise machines, each with adjustable difficulty settings. A pacing participant and following participants are designated among a group of participants using the exercise machines. Performance parameters are tracked for the pacing participant and the difficulty settings for the following participants’ exercise machines are adjusted based on the performance parameters. In an embodiment, the pacing participant is designated based on the lowest-performance participant. In another embodiment, the pacing participant is designated based on the highest-performance participant.

[0046] The workout system may keep track of challenges and achievements. Examples of achievements and challenges tracked by the system include:

- Event: Run the Boston marathon; ride all of this year’s Tour De France routes.
- Store: Buy a product; post a product link; share a product; recommend a product; have a friend buy a product.
- Pace: 7 min mile; faster than a rhino; 10 paced based runs.
- Competition: Beat 3 friends; king of the hill; fastest hill; fastest marathon in my town; top 10; dethrone 5 people; get 20 kills; compete with 5 friends; beat previous best.
- Calories: Burn 10,000 calories; burn 300 calories in a run; 10 calorie based runs; no fast food for a week.
- Weight: Lose 5 lbs.; keep the weight off for 1 month.
- Equipment: Own all cardio types; log 100 miles on a treadmill; buy new equipment; Mayor of a club machine (most time/weight/distance) on a machine.
- Diligence: Run 5 days in a week; 20 times a month; run over 1 mile for consecutive 5 runs; run every Monday in a month; become fit enough for marathon.
Elevation: Climb 3000 ft; climb 1000 ft in 10 min; climb Mt. Everest; go up and down 2000 ft; climb the Alps; climb the Eiffel tower.

Time: Run 100 hrs; run 10 hrs in a week; ride 6 hrs; run one month straight; night runner; early bird runner; 10 time based runs.

Seasonal: Run on New Years; Christmas fat burner.

Geography: Run specific locations; collect states; collect countries; collect continents; Cross the great divide; Mayor of a route; run past 3 bodies of water; cross a border; cross 20 streets; run through 3 cities; run past the zoo; run past the capital; national park badge; run in 5 different states; run in highly populated area; run in sparsely populated area; run in desert; run in mountains; run on dirt road; run same route 10 times; run 10 different routes; run 5 training events; run entire program; run multiple programs at the same time; save 10 maps.

Social: Invite 3 friends to run; workout with other people at the same time; ride with a group; share runs; run a popular route; run at the same time as a friend; match a friend’s schedule for a month; share schedule with friend; run a shared run; 3 people run your route; vote 10 times; run with team; tweet 10 runs; post 10 runs on Facebook.

Other: Workout on treadmill and cycle in same week; 10 free runs; run without music; run with music; run with voice prompts; run with goals; check status multiple times in run; skip a lot of songs; re-run 5 runs; change password 3 times; change weight 3 times; change height; change birthday; forget password 3 times; delete 10 runs.

Achievements are tracked by logging user actions and publishing them to a private list. Items on the list may be granular to allow for many achievement types. Some items may be derived from others. For example, if the user went to a club or not may be derived from the workout. The list will include:

0062 User buys something
0063 User logs in
0064 User workouts out, points to the workout log
0065 Each workout will provide its available summary and metrics to be acted on
0066 User joins a group
0067 User creates/Joins/Completes a competition
0068 User creates/accepts/rejects/completes a challenge
0069 User posts a comment
0070 User follows a user
0071 User is followed by a user
0072 User gets an achievement
0073 User adds equipment (treadmill, shoes, watch)
0074 User invites someone
0075 User reads an article
0076 User sends a message
0077 User posts a public message
0078 User creates a workout
0079 User creates a route
0080 User creates a segment
0081 User completes a segment
0082 User schedules a workout
0083 User “likes” an item
0084 User logs a food/workout/sleep/weight

Challenges may have the following characteristics:
0085 Challenges can be created by anyone
0086 Challenges can have a reward split between winners
0087 Challenges can have a point reward—100 more points for every user that joins
0088 Challenges can have a money reward—Everyone pays $5 into the pool
0089 Challenges can link to a charity—A dollar for every mile
0090 Members of a public challenge can invite others to a challenge
0091 Creator of a challenge can make it invite only
0092 Challenges can be workout based (map, custom, routine)
0093 Challenges can be metric based (first to 100 miles, 10 lbs lost, etc)
0094 Challenges can be limited to groups (people over 200 lbs, point level, achievement level)
0095 Challenges can have a time frame
0096 Challenges can have a specific start time
0097 Challenges can be limited to groups (two teams run the Ragnar)
0098 Challenges can be multiple workouts, first one to do these 20 workouts
0099 Quest challenge. Invite a friend to earn a badge with you
0100 Team shares map with another team and they race each other
0101 Challenges can be who lasts the longest (outrun a bear/zombie hoard)
0102 Challenges should all have points, but system (not user) assigned point values
0103 The system may also track workouts as follows:
0104 A workout can be rated (1-5 stars, most ran, most likes)
0105 A workout can have a review
0106 A workout can have multiple people do it
0107 A user can do a workout multiple times
0108 A user can compare any two sessions of that workout (their own or others)
0109 A user can share a workout with others
0110 A user can challenge other users to a workout (the workout basically becomes a private challenge)
0111 A workout can have geo tagged items (leave a picture)
0112 A workout and a workout session can have a review/comment section
0113 Algorithm to help find a training route which matches more closely another route
0114 Alerts or notifications if people run your route
0115 Achievements if other people are running your route
0116 A user can sponsor a route, e.g., “run to our store for X % off.”
0117 Segments may include the following characteristics:
0118 Any geo based workout (indoor or outdoor) is searched for matching segments when uploaded
0119 Segments are auto created for big hills
0120 Segments can be created by each user
0121 A segment will show the leader board for that segment
A user can compare any two workouts on that segment (their own or others).

A user can view their history on that segment.

A segment can be a slice of a full workout, but not a partial segment.

A user can get an achievement by being the leader on a segment.

Information, including the various achievement metrics, challenges, workouts and segments, may be stored on server 14 for each participant. The information may be recorded as a participant uses an exercise machine. Information may be input from the control panel 26 of a treadmill 20. In addition, the system may have a web interface for inputting information and reviewing individual participant statistics.

Referring now to FIG. 4, a functional block diagram of a typical workstation 500 for the technology of the present application is provided. Workstation 500 may be any of the above described personal computing devices, servers, or the like. The workstation 500 is shown as a single, contained unit, such as, for example, a desktop, laptop, tablet, handheld, smart phone, personal digital assistant, or mobile processor, but the workstation 500 may comprise portions that are remote and connectable via a network connection such as via a LAN, a WAN, a WLAN, a WiFi Network, Internet, or the like. Generally, the workstation 500 includes a processor 502, a system memory 504, and a system bus 506. The system bus 506, which may follow any conventional protocol such as, for example, PCI or PCI-express, couples the various system components and allows data and control signals to be exchanged between the components. The system memory 504 generally comprises both a random access memory (RAM) 508 and a read only memory (ROM) 510. The ROM 510 generally stores a basic operating information system such as a basic input/output system (BIOS) 512. The RAM 508 often contains the basic operating system (OS) 514, application software 516 and 518, and data 520. The system memory 504 (non-transitory computer readable medium) contains the code for executing the functions and processing the data as described herein to allow the present technology of the present application to function as described. The workstation 500 generally includes one or more of a hard disk drive 522 (which also includes flash drives, solid state drives, etc. as well as other volatile and non-volatile memory configurations), a magnetic disk drive 524, or an optical disk drive 526. The drives are connected to the bus 506 via a hard disk drive interface 528, a magnetic disk drive interface 530 and an optical disk drive interface 532. Application modules and data may be stored on a disk, such as, for example, a hard disk installed in the hard disk drive (not shown). The workstation 5000 has network connection 534 to connect to a local area network (LAN), a wireless network, an Ethernet, the Internet, or the like, as well as one or more serial port interfaces 536 to connect to peripherals, such as a mouse, keyboard, microphone, touch screen, light pen, modem, or printer. The workstation 500 also may have USB ports or wireless components not shown. Workstation 500 typically has a display or monitor 538 connected to bus 506 through an appropriate interface, such as a video adapter 540. Monitor 538 may be used as an input mechanism using a touch screen, a light pen, or the like. On reading this disclosure, those of skill in the art will recognize that many of the components discussed as separate units may be combined into one unit and an individual unit may be split into several different units. Further, the various functions could be contained in one personal computer or spread over several networked personal computers and/or devices. The identified components may be upgraded and replaced as associated technology improves and advances are made in computing technology.

Those of skill would further appreciate that the various illustrative logical blocks, modules, circuits, and algorithm steps described in connection with the embodiments disclosed herein may be implemented as electronic hardware, computer software, or combinations of both. To clearly illustrate this interchangeability of hardware and software, various illustrative components, blocks, modules, circuits, and steps have been described above generally in terms of their functionality. Whether such functionality is implemented as hardware or software depends upon the particular application and design constraints imposed on the overall system. Skilled artisans may implement the described functionality in varying ways for each particular application, but such implementation decisions should not be interpreted as causing a departure from the scope of the present invention. The above identified components and modules may be superseded by new technologies as advancements to computer technology continue.

The various illustrative logical blocks, modules, and circuits described in connection with the embodiments disclosed herein may be implemented or performed with a general purpose processor, a Digital Signal Processor (DSP), an Application Specific Integrated Circuit (ASIC), a Field Programmable Gate Array (FPGA) or other programmable logic device, discrete gate or transistor logic, discrete hardware components, or any combination thereof designed to perform the functions described herein. A general purpose processor may be a microprocessor, but in the alternative, the processor may be any conventional processor, controller, microcontroller, or state machine. A processor may also be implemented as a combination of computing devices, e.g., a combination of a DSP and a microprocessor, a group of microprocessors, one or more microprocessors in conjunction with a DSP core, or any other such configuration.

INDUSTRIAL APPLICABILITY

In general, the workout system provides a social interactive exercise program in which multiple participants can participate in competitions or pacing events. In addition, the participants may have two-way communication, both video and audio, to communicate with each other as a group or on an individual basis by selecting individual users with which the participant wishes to communicate. In one aspect of the technology, a remote participant outfitted with a wireless tracking device and remote camera system may lead the group through real terrain, such as a trail or hike. The tracking device is operative to measure the remote participant's workout difficulty parameters and adjust the group's treadmill operating parameters to match that of the remote participant's workout. The participant's workout is thus more motivating and realistic and less monotonous than a pre-programmed or static workout program. Multiple participants may be interconnected via a wireless network, including web, Internet, cell phone, etc. Each treadmill or exercise machine may be equipped with a display device, camera, speaker and microphone which provide for two-way communication, both audio and video. Accordingly, a remote participant could be a group leader, such as a workout coach, or even a celebrity athlete who could lead an entire group of remotely located participants on a real-time basis.
[0132] In another aspect of the technology, the workout system provides a social exercise activity which is paced by either the fastest or the slowest person in the group, thereby promoting camaraderie, motivation, teamwork, and a support structure. The workout system in this case may first establish the pacing participant by measuring their performance parameters during a selected qualifying period or may be designated based on historical data from previous workouts.

[0133] Accordingly, the workout system and methods have been described with some degree of particularity directed to the embodiments. It should be appreciated, however, that the present invention is defined by the following claims construed in light of the prior art so that modifications or changes may be made to the embodiments without departing from the inventive concepts contained herein.

What is claimed is:

1. A workout system, comprising:
   one or more exercise machines with adjustable difficulty settings; and
   a wireless tracking device operative to:
   measure workout difficulty parameter values of a participant’s workout; and
   communicate the difficulty parameter values to the one or more exercise machines, wherein the difficulty settings of the one or more exercise machines are adjusted based on the difficulty parameter values.

2. The workout system of claim 1, the difficulty parameter values comprising at least one setting based on speed, incline, resistance, gear selection, and cadence.

3. The workout system of claim 1, the exercise machine comprising a treadmill, elliptical machine, stationary bicycle, and a rowing machine.

4. The workout system of claim 1, wherein the tracking device includes a GPS.

5. The workout system of claim 1, wherein the tracking device includes at least one accelerometer.

6. The workout system of claim 1, further comprising at least one display device associated with the one or more exercise machines.

7. The workout system of claim 6, further comprising a camera system wearable by the participant and operative to transmit images to the at least one display device.

8. The workout system of claim 6, a display device mounted on each of the one or more exercise machines.

9. The workout system of claim 6, wherein the at least one display device is operative to display the difficulty parameter values.

10. A multi-participant workout system, comprising:
   a plurality of exercise machines each with adjustable difficulty settings and including a display device;
   a wireless tracking device operative to measure workout difficulty parameter values of a participant’s workout and operative to communicate the difficulty parameter values to the plurality of exercise machines, wherein the wireless tracking device includes GPS;
   a camera system wearable by the participant and operative to transmit images to the display devices; and
   wherein the difficulty settings of the exercise machines are adjusted based on the difficulty parameter values.

11. The workout system of claim 10, wherein the difficulty parameters are selected from the group consisting of speed, incline, resistance, gear selection, and cadence.

12. The workout system of claim 10, wherein the exercise machine is selected from the group consisting of a treadmill, elliptical machine, stationary bicycle, and a rowing machine.

13. The workout system of claim 10, wherein the tracking device includes at least one accelerometer.

14. A multi-participant workout method, comprising:
   providing a plurality of interconnected exercise machines each with adjustable difficulty settings;
   designating a pacing participant and at least one following participant among a plurality of participants using the plurality of exercise machines;
   tracking performance parameters of the pacing participant; and
   adjusting the difficulty settings of the at least one following participants’ exercise machines based on the performance parameters of the pacing participant.

15. The method of claim 14, wherein the pacing participant is designated based on the lowest performance participant.

16. The method of claim 14, wherein the pacing participant is designated based on the highest performance participant.

17. The method of claim 14, wherein the performance parameters are selected from the group consisting of speed, incline, resistance, gear selection, and cadence.

18. The method of claim 14, wherein the exercise machines are selected from the group consisting of a treadmill, elliptical machine, stationary bicycle, and a rowing machine.

19. The method of claim 14, wherein at least one exercise machine includes a display device and further comprising displaying the performance parameters of the pacing participant.

20. The method of claim 19, the at least one exercise machine further comprising a camera, a microphone, and a speaker.

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