

(A)

complaint

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the Application of:

Mellow, Guy

Application No.: 14/000,000

Filed: 04/01/16

For: ELECTRONIC DEVICE
CONTROL SYSTEM AND
METHOD

Examiner: Nile, Daniel

Group Art Unit: 3683

Attorney Docket No.: 0987

Confirmation No.: 1234

AMENDMENT

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Examiner Nile:

This Amendment is in response to the Final Office Action mailed April 22, 2016.

This Amendment is timely because it is being submitted within the period for reply which expires July 22, 2016. Please enter and consider the following:

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS

1. (Currently Amended) A device control system, the system comprising:
 - at least one electronic data storage unit, wherein said at least one electronic data storage unit stores process instructions and a predetermined HRV threshold value;
 - at least one processor;
 - at least one sensory output component in electronic communication with said at least one processor;
 - at least one digital signal transceiver in electronic communication with the processor of the electronic device;
 - at least one system applications memory in electronic communication with the processor of the electronic device, storing memory for at least one system applications;
 - at least one network component in electronic communication with the processor of the electronic device, enabling wireless communication for the said electronic device;wherein the at least one processor is configured to:
 - receive user heart rate data from an electronic apparatus capable of detecting heartbeats and providing heart rate data comprising at least three heart rate data points;
 - store said heart rate data in the at least one electronic data storage unit;
 - calculate user Heart Rate Variability (HRV) values using said heart rate data;

pretty good claim structure

store said HRV values in the at least one electronic data storage unit;
retrieve the process instructions from said at least one electronic data
storage unit when said user HRV values are less than the
predetermined HRV threshold value; and
execute said process instructions to terminate at least one of the system
applications when said user HRV values are less than the
predetermined HRV threshold value stored in said at least one
electronic data storage unit.

2. (Currently Amended) A system of claim 1, wherein the process
instructions are further configured to:

prevent communication applications installed in the electronic device from
initializing;
~~terminate said applications;~~
initiate at least one preset applications installed in the electronic device;
initiate at least one audio files, stored in the data storage unit of the electronic
device, with the at least one auditory output component; and
initiate at least one image files, stored in the data storage unit of the electronic
device, with the at least one visual output component.

3. (Original) A system of claim 2, wherein the at least one audio files and the
at least one image files are provided by the user and stored in the data storage unit of the
electronic device.

4. (Original) A system of claim 1, wherein the at least one electronic data
storage stores user preferences for providing process instructions to communication
applications installed in the electronic device.

5. (Original) A system of claim 4, wherein the user preferences:
 - identify which communication applications and which communication modes are to be prevented and terminated;
 - identify the user's preferred length of time for preventing and terminating communication applications and communication modes;

6. (Original) A system of claim 1, wherein the at least one sensory output component includes a visual output component capable of generating a visual display, and an audio output component capable of generating sounds.

7. (Original) A system of claim 1, wherein the electronic apparatus and the electronic device may be a fitness-monitoring apparatus, such as FitBit, and a personal mobile device, such as iPhone.

8. (Original) A system of claim 1, wherein the plurality of network components include at least one of:
 - a Wi-Fi network component allowing the electronic device to communicate wirelessly with a Wi-Fi communication, a cellular network component allowing the electronic device to communicate wirelessly with a cellular communication, a Bluetooth network component allowing the electronic device to communicate wirelessly with a Bluetooth communication.

9. (Currently Amended) A method to control device components, the method comprising:
 - receiving user heart rate data from a monitoring apparatus;
 - transmitting said user heart rate data from the monitoring apparatus to an electronic device;
 - storing the user heart rate data in a data storage unit in the electronic device;

calculating user HRV values by determining variability between at least three consecutive heart rate data points from said user heart rate data a; *indefinite?*
storing the user HRV values in the data storage unit in the electronic device;
determining when the user HRV values are less than a predetermined HRV threshold value;
retrieving process instructions from said data storage unit in the electronic device;
and
executing said process instructions to terminate at least one of the system applications when the user's HRV values are less than the predetermined HRV threshold value. *when*
no AB?

10. (Original) A method of claim 9, wherein the monitoring apparatus may be a fitness-monitoring device and the electronic device may be a mobile device.

11. (Original) A method of claim 9, wherein determining when the user HRV values are below the predetermined HRV threshold value further including:
retrieving the user HRV values from the data storage unit in the second electronic device;
comparing the user HRV values to the predetermined HRV threshold value stored in the data storage unit in the second electronic device;
storing user HRV values in the data storage device in the user's mobile device when the user's HRV values are below said HRV threshold value; and
storing time information regarding when the user HRV values were less than the predetermined threshold HRV value.

12. (Currently Amended) A method of claim 9, wherein the at least one of the program instructions is configured to perform functions further including, but not limited to:

~~terminating applications installed in the electronic device;~~
~~preventing stopping~~ said applications installed in the electronic device from
initializing;
initiate at least one applications installed in the electronic device;
initiating at least one of audio files, stored in the data storage unit of the electronic
device, with the at least one auditory output component; and
initiating at least one of image files, stored in the data storage unit of the
electronic device, with the at least one visual output component.

13 (Currently Amended) A method to prevent communication application
operation, the method comprising:

storing user preference information in a data storage unit in an electronic device,
the user preference information including communication application
operation preferences;
receiving user heart rate data from a monitoring device, the user heart rate data
including at least three heart rate data points;
storing said user heart rate data in the data storage unit in the electronic device;
calculating user HRV values by determining variability between at least three
consecutive heart rate data points from said user heart rate data;
storing said user HRV values in said data storage unit;
determining when said user HRV values are less than a predetermined HRV
threshold value;
retrieving process instructions and the user preference information from the data
storage unit in the electronic device;
executing said process instructions to terminate at least one of communication
system applications when the user's HRV values are less than the
predetermined HRV threshold value;

not totally clear

stop/terminate?
and

(1) stopping a computer processor of said electronic device, while the user HRV values are less than the predetermined HRV threshold value, from executing a first communication application operation on the electronic device when said communication application operation does not match the user preference information; and

initiating a computer processor of said ^{AB?} device, while the user HRV values are less than the predetermined HRV threshold value, to execute a second communication application operation on the electronic device when said communication application operation matches the user preference information. *Sage*

14. (Original) A method of claim 13, wherein the monitoring device and electronic device may be a fitness-monitoring device and a mobile device, respectively.

15. (Currently Amended) A method of claim 13, wherein the communication application operation is configured to use the following communication applications, ~~but~~ not limited to:

an email application, a voice communication application, an instant message application, a video communication application, and Internet browser application.

16. (Original) A method of claim 13, further comprising:

tracking the number of the second communication application operation;

initiating the computer processor of said device to execute the second communication application operation when the maximum number of the second communication application operation allowed per day has not been met; and

stopping the computer processor from executing the second communication application operation when the maximum number of the second communication application operation allowed per day has been met.

17. (Original) A method of claim 16, wherein the maximum number of the second communication application operation allowed per day is included in the user preference information stored in the data storage unit in the electronic device.

18. (Original) A method of claim 13, wherein determining when the user's HRV value is below the predetermined HRV threshold value further including:

retrieving the user's HRV values from the data storage in the user's electronic device;

comparing the user's said HRV values to the predetermined HRV threshold value;

storing the user's HRV values in the data storage device in the user's mobile device when the user's HRV values are below said threshold HRV value; and

storing the times at which the user's HRV values were below the predetermined threshold HRV value.

19. (Original) A method to provide an alternate display for an electronic device:

storing a predetermined HRV threshold value and user heart rate data in a data storage unit of an electronic device;

monitoring user activities on the electronic device;

storing data of said user activities in the data storage unit of the electronic device;

indefinite

need to define "activity" or else it is any activity

- determining pre-activity user HRV values and post-activity user HRV values for each of the user activities using heart rate data stored in the data storage unit of the electronic device;
- calculating HRV impacts of each of the user activities by subtracting the post-activity user HRV value from the pre-activity user HRV value for each of the user activities;
- calculating an average HRV impact for each of the user activities using said HRV impacts;
- storing the average HRV impact in the data storage unit of the electronic device;
- monitoring a user activity on the electronic device;
- determining pre-activity user HRV value for said user activity;
- retrieving average HRV impact for said user activity from the data storage unit in the electronic device;
- calculating estimated post-activity user HRV value for the said user activity by subtracting the average HRV impact for said user activity from said pre-activity user HRB value for said user activity; and
- providing an alternate display for the electronic device when the estimated post-activity user HRV value is less than the predetermined HRV threshold value.

see earlier claims

20. (Currently Amended) A method of claim 19, wherein the ~~specific~~-user activity on the electronic device may include the following, ~~but not limited to~~:

- receiving an incoming call, making an outgoing call, receiving an incoming instant message, sending an instant message, receiving an incoming video call, making an outgoing video call, receiving an incoming E-mail, accessing an E-mail, drafting an E-mail, sending an E-mail, browsing on an Internet browser application, playing an audio file, playing a video file, and initializing any of the installed applications on the electronic device.

REMARKS

The present application includes claims 1-20. Claims 1-20 were rejected. By this Amendment, claims 12, 15, and 20 have been amended.

Claims 12, 15, and 20 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Independent claims 12, 15, and 20 were amended to particularly point out and distinctively claim the subject matter regarded as the invention. *could be more specific about change* ✓

Claims 1-20 were rejected under 35 U.S.C. §102(a)(1) as being anticipated by *→ system?* Chadderdon, U.S. Patent App. Pub. No. 2016/0089038. Chadderdon illustrates a suste, that includes a mobile application 20, a wearable measuring device 30, and a diagnostic devie 40. Described in paragraph 26, the mobile application 20 in conjunction with the wearable physiological sensor device 30, tracks and assesses stress indicators and triggers real-time evidence-based strategies for addressing periods of stress. The diagnostic device 40 determines when a user experiences stress by comparing the user's real-time physiological data to baseline levels.

Furthermore, as described in paragraphs 60-62 and shown in FIG. 7, the method 700 comprises collecting and at least one of cardiovascular activity data of a user, identifying when the user experiences stress, classifying the amount of stress experienced

by the user, making a report to a database when the user expresses stress, and presenting to the user at least one technique to mitigate the stress experienced by the user. In paragraph 60, it is described that when the user is experiencing stress, "the mobile application 20 may prompt the user to complete a relaxation strategy." Some of the relaxation strategies described by Chadderson are: biofeedback 630, progressive muscle relaxation 640, and guided deep breathing 650. Therefore, Chadderdon teaches and describes a system that provides strategies to lower one's stress when one is stressed.

However, Chadderdon does not teach a mobile application terminating at least one system application as described in the present patent application. The present patent application teaches that when a processor of a user device determines that a user's heart rate variability (HRV) is below a predetermined HRV threshold value, it executes system instructions to terminate at least one of system applications installed in the user device. As mentioned earlier Chadderdon does not teach a mobile application terminating system application when a user is experiencing stress. Claim 1 does.

Consequently, independent claims 1, 9, 13, and 19 are respectfully submitted to be free of prior art and allowable, as are their respective dependent claims, 2-8, 10-12, 14-18, and 20.

Claims 1-20 were rejected under 35 U.S.C. §102(b) as being anticipated by Czerwinski, U.S. Patent App. Pub. No. 2016/0063874. Czerwinski illustrates a digital personal assistant 130 that can determine a mental or emotional state of a user of end user

When... exceeds a digital threshold the stress classify cases to classify stress"
ALL ABSTRACT
- The examiner can take a blood reading of HRV
- also see conversion in FIG 1 BT measuring device 307 method
Patent claim 20

Link more to specific claim limitations

computing device 102 by analyzing one or more signals associated with the user. As described in paragraph 49, “various types of signals . . . may be used by digital personal assistant 130 to determine user mental or emotional state.” The various types of signals used are described in paragraphs 50-91.

Paragraphs 96-114 describe various examples of user content/activity feedback system 200 in operation. As stated in paragraph 96, user content/activity feedback system 200 may be implemented by digital personal assistant 130. The user content/activity feedback system 200 determines a user’s current mental or emotional state and provides the user with either content-specific or activity-specific feedback. For example, paragraphs 101-105 teach us how the user content/activity feedback system 200 responds to a draft of a user’s text message and provides feedback with respect to the user’s mental or emotional state. Moreover, flowchart 400 of FIG. 4 shows that at step 406, “based on the determined mental or emotional state of the user, user content/activity feedback logic 204 provides feedback (e.g., visual, audio, and/or haptic feedback) to the user concerning an item of content generated by the user.” Therefore Czerwinski describes and teaches a method to provide feedback to content generated or activity by a user, based on the user’s mental or emotional state.

However, Czerwinski does not teach a method to terminate system applications when a user is deemed “stressed.” The present patent application teaches that a processor terminates at least one system application when a user’s heart rate variability (HRV) is below a certain threshold. It does not state that the system requires detecting user’s

content or activity; it simply compares user HRV to a predetermined HRV threshold. As stated above, Czerwinski does not teach a method or a system that simply terminates system applications based on user mental or emotional state; it teaches how to provide feedback specific to user content/activity.

Consequently, independent claims 1, 9, 13, and 19 are respectfully submitted to be free of prior art and allowable, as are their respective dependent claims, 2-8, 10-12, 14-18, and 20.

- Link more closely to claim language
- You are close with "terminating application"
 - ↳ not just "program instructions" which C could be read as down
 - ↳ not just "stopping" which C...

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CONCLUSION

If the Examiner has any questions or the Applicant can be of any assistance, the Examiner is invited and encouraged to contact the Applicant at the number below.

The Commissioner is authorized to charge any necessary fees or credit any overpayment to the Deposit Account of Church, Neil, Kirby & Peabody LLP, Account No. 65-4321.

Respectfully submitted,

Date: April 28, 2016

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