A Device, Methodology And System For Monitoring, Classifying And Encouraging Activity

Tech ID: 29896 / UC Case 2011-829-0

SUMMARY

UCLA researchers in the Department of Computer Science have developed a new technology to fight the growing obesity epidemic by encouraging exercise.

BACKGROUND

Youth obesity is a growing problem in the United States. Nearly one-third of all children are overweight or obese. Some of the main contributing factors to obesity are nutrition and lack of physical activity. It's currently estimated that children aged 2-19 spend around 8 hours watching video content and playing video games, largely sedentary activities. Introduction of technologies that aid in promoting physical activity may help combat the current obesity epidemic.

INNOVATION

UCLA researchers led by Professor Majid Sarrafzadeh have developed a novel toy with integrated embedded sensors, a mobile phone application for alternate data collection, and a website that contains games and rewards. Additionally, exercise activity influences their ability to play video games associated with the device. The influence of exercise in the games may be to reduce the speed or responsiveness of a video game character depending on how often the user has exercised. Additional motivating factors include providing rewards to users who exercise longer and more frequently.

APPLICATIONS

- A useful tool in combating childhood and adult obesity
- Potentially could be used as an aid in physical therapy setting

ADVANTAGES

- Integrates common childhood leisure activities, such as video games, with exercise
- Monitor and tracks activity and rewards users with motivation accordingly
- Previous studies show that tying exercise and physical activity to interactive games and rewards may be a motivating factor in changing lifestyle behavior

STATE OF DEVELOPMENT

- Researchers have built working prototypes of toys with sensors, and associated software and web portals

PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Issued Patent	9,901,815	02/27/2018	2011-829

ADDITIONAL TECHNOLOGIES BY THESE INVENTORS

- Near-Realistic Sports Motion Analysis and Activity Monitoring

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INVENTORS

- Sarrafzadeh, Majid

OTHER INFORMATION

KEYWORDS

activity monitor, FitBit, wearable technologies, biosensor, exercise monitor, obesity, exercise tool, exercise aide, activity tracker, exercise tracker

CATEGORIZED AS

- **Biotechnology**
  - Health
  - Other
- **Computer**
  - Other
- **Medical**
  - Devices
  - Other
  - Software
- **Sensors & Instrumentation**
  - Biosensors
  - Medical
  - Other

RELATED CASES

2011-829-0

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