Weekly Discovery

We SHARE to inspire and ignite ideas!

11 April 2016 – 15 April 2016

APPS

Mobile-phone health apps deliver data bounty

Smartphone apps developed by academics and pharmaceutical companies have made extensive studies that collect real-time data on people's location, environment and health a reality. ResearchKit, developed by Apple in March 2015 has been used in the making of iPhone apps targeted to specific medical conditions. Collecting health data through an app makes the data easy to share with other researchers. This technology could even pave the way for wearable devices that automatically collects data from participants in real time.

Source: Nature.com (March 2016)

ARCHITECTURE

Intentionally unstable water pavilion lets visitors walk on water

Daniel Valle Architecture has created the water pavilion that lets people walk on water. The pavilion may be raised to float above the sea or rest below it, making for an unstable environment. The pavilion was designed to help people to gain a better understanding of the change in ocean and coastal environments occurring due to global warming.

Source: Inhabitat.com (April 2016)

CYBERSECURITY

The future of finance: Forget PINs and passwords ... welcome to a world of wearable technology


MasterCard labs have developed wearable technology devices, as PINs and passwords can sometimes be forgotten. An example is a wristband that uses electrocardiograms (ECG) to measure one's heart rate. When he pays, it transmits a signal to a till to determine who the payer was. Each individual's ECG reading is unique, so if someone else takes his wristband, they won't be able to use it.

Source: Independent (March 2016)

DESIGN FOR DISABILITY

How tech students redesigned a locker for sixth-grader with cerebral palsy
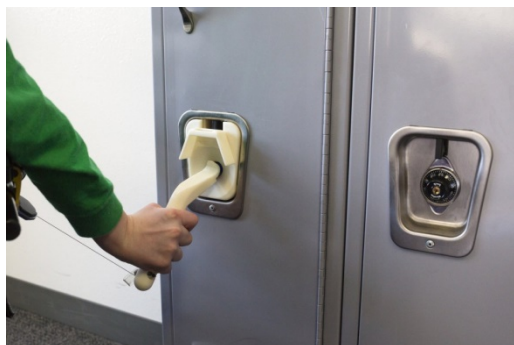
Lockers are commonly used to store personal items in schools and workplaces. However, people with disabilities may have difficulty using them. This article discusses the case where students from Kent Career Technical Centre's Engineering and Architectural Design class designed an adapted locker for a girl with cerebral palsy. She was unable to use the conventional combination lock, due to motor skill challenges. The students thus designed a magnetic lock that featured just one motion to pop the lock utilizing a 3D Printer. This enabled the girl to operate the locker key independently.

Source: MLive (March 2016)

SENSOR TECHNOLOGY

Sense Smart Alarm and High Tech Sleep Monitor

"Sense" is a newly designed smart alarm and sleep sensor system. This system consists of 3 parts. There is a plastic ball that monitors sleep habits, a sleep pill that clips to a pillow that determines when REM or non-REM sleep is attained and an Android or IOS app that helps one to evaluate his sleep patterns. This will help the user to get the rest he needs, particularly if he is elderly.

Source: Machinetics.com (March 2016)

SPEECH TECHNOLOGY

Conversational Interfaces
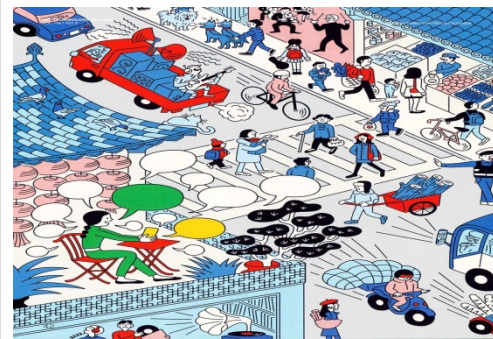
Find out about the growing use of speech technology from Internet company, Baidu, in China. Points covered by this article include the progress made by the company, the accuracy of its voice recognition and the new speech recognition engine, Deep Speech 2. A main benefit of Deep Speech 2 is that it can be used for a wide variety of languages. You will also be able to read insights from Associate Professor Andrew Ng of Stanford University, regarding speech technology.

Source: MIT Technology Review (March/April 2016)