

Smartwear may make people healthier

TAIPEI, TAIWAN: A new generation of wearable technology is promising not only to log data about users' health but to predict and avert crises, from drivers falling asleep at the wheel to runners wearing themselves out in a marathon.



Canalys Analyst Daniel Matte says the market for wearable devices will grow exponentially but do these devices offer any real benefits? Image: Canalys

But there are concerns over the accuracy of the personal information collected by the burgeoning range of smart wristbands, watches and clothing, and how companies might use that data.

Wearable technology is the fastest growing category at this year's Computex, Asia's largest technology trade show, with health-tracking as dominant theme at the show.

"Health and fitness sensors and data are fundamental for wearables and largely define the category," said Daniel Matte of market research firm Canalys.

Market tracker IDC predicted in April that sales of wearable items would triple this year to 19m units worldwide, growing to 111.9m by 2018.

Lycra cycling top

At Taiwanese smartwear company AiQ's Computex stand this week, a muscular mannequin showed off a lycra cycling top.

Stainless steel fibres in the fabric and electrodes in the sleeves sense heart rate and other vital signs as well as calories burned, sending the data to a Bluetooth clip which can transmit it to a phone, tablet or other smart device.

The technology will appeal to sports fans, but it is Taiwan's bus drivers who will be the first to benefit, when companies ask them to wear smart shirts later this year in a move that could prevent accidents.

"We will provide a shirt which can monitor the drivers in case they are falling asleep, or in case any vital signs are not okay, and it will provide a signal or a warning to the bus company," said AiQ Vice President Steve Huang, adding that the clothing was tested for a year on discharged hospital patients to track their condition and it received positive feedback from wearers.

But analysts and consumers still have reservations about whether smartwear can really tell us the truth about our bodies.

"Current sensors are not very accurate, but there will be improvements," said Matte.



AiQ has made a lycra T-shirt interwoven with stainless steel fibres to monitor the body's vital signs. Image: Computex

Digital health platforms

Samsung unveiled a new digital health technology platform last week that uses sensors to track a range of body functions such as heart rate and blood pressure.

And Apple, also launched its 'Health' app, with speculation mounting it will move into hardware later this year.

Leading Taiwan firm Acer also revealed its first wearable device at Computex, a fitness-tracking wristband which links to a smartphone. But while technology firms jump on the health-monitoring bandwagon there are questions over how the huge flow of data from the new devices will be handled.



Wearable devices attracted huge amounts of attention at this year's Computex show. Image: [Focus Taiwan](#)

"There is a massive opportunity to analyse and monetise the large amounts of data that wearable sensors and platforms will generate. Privacy is always a concern," says Matte.

Huang acknowledged the tension between the potential commercial benefit for smartwear firms and the risk of invading users' privacy. "There will be a lot of legal and moral issues that needed to be examined and tested," he said.

Using health data

Technology companies are also emphasising the potential benefits of analysis to help users make sense of their data, and the possibility of linking up with experts who can

give them feedback.

"Maybe we will cooperate with some medical (institutions) like hospitals to improve this kind of product we make so we can do something to really help people. This has been talked about at Sonostar," said Paula Luh at the Sonostar stand.

Sonostar was showing its new brightly-coloured SmartFit trackers, silicone wristbands with a pop-out coin-sized sensor which is battery-powered and designed to be worn all day, monitoring everything from steps taken to sleeping patterns.

"The device has one year's memory storage," said Luh, who added that users' privacy would be protected through a registration procedure to access their personal data online.

Smart wearables could also be set to re-educate athletes away from a the "no pain no gain" approach, with one new device at Computex claiming to be able to measure "stamina" so that it can warn racers when they might be pushing too hard.

"We detect the current flowing through your heart. Then we use our algorithm and transfer the raw information into stamina," said Kuo Hsin-fu of Taiwanese start-up Bomdic, which makes the clip-on Bluetooth "GoMore" device.

"By analysing the user's heart activity the device can predict lactic acid build up and other physical factors which can affect performance," said Kuo. "Stamina is shown as a percentage level," he added.

"Most of the (smart) bands focus on general users, but our target audience is athletes. The ones who have tried it love it, it's good for training and competition efficiency," he said.

Source: AFP via I-Net Bridge



People throng the halls of the Computex show in Taiwan. Image: [Focus Taiwan](#)

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