Wearable Technology: The $70 Billion Picture

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Cambridge, UK -- Wearable technology mainly concerns devices and apparel/textiles. Devices are discrete electronic and electrical hardware sold on its own for bodywear. It may be utilized by being attached to apparel or by constitutin

g worn accessories such as electronic watches and earphones. Glasses, jewellery, headgear, belts, armwear, wristwear, legwear, footwear, and even skin patches are involved and the device business is already large. By contrast, the apparel/textiles option concerns electronics and electrics integral in or distributed through apparel including rucksacks and bandages. It will be a big business later in the decade. It involves disruptive new technologies: it is not incremental at all and it will even enable electronic fashion and luxury goods.

Five-Fold Growth over the Next Decade

As the wearable electronics business powers over five times from over $14 billion today to over 70 billion in 2024, the dominant sector by value will remain the increasingly merged medical, healthcare, fitness, wellness sector. It has the largest number of big names behind the most promising new developments such as Adidas, Accenture, Fujitsu, Nike, Philips, Reebock, Roche, Samsung and SAP, with Apple recruiting top people from that industry for obvious reasons. Their intellectual property is profound: their agenda is heroic, addressing many of the biggest issues of our time such as the greying of the population, the epidemic of obesity and diabetes. This even extends to a replacement pancreas as a skin patch and exoskeletons and limbs to make the disabled whole again.

Infotainment vs Infomatics

The advanced infotainment sector will grow to exceed it in numbers but not value in 2024. Here, Google Glass and other eyewear will be a large sub-sector alongside smart wristwear. Smart glasses have excellent hands free user interfaces such as speaking to you, voice recognition and “blink to take a picture” and they are very easy to use compared to most wristwear, with the exception of the popular fitness-monitoring wristbands. Advanced infotainment does not have a particularly heroic agenda in the main. For instance, it makes mobile phones more useful and provides more realistic video games through vibrating suits and 3D headwear, attracting little support from governments. Just as the first volume wearable electronics - basic earphones and electronic wrist watches - moved to China at collapsed prices, the largely conventional electronics in most wearable advanced infotainment today means that much of it will also be commoditised within the decade. As yet, there is no equivalent to Samsung cornering OLEDs for early smart phones and Apple cornering other valued early smart phone technology.

Wristwear currently has the largest sale within advanced informatics but it has

particular problems. As a speaker at a recent event on the subject said, the most promising ones need to be mobile-phone based and multi-functional but using these, “It like assembling an ocean liner through a keyhole”.

At the other extreme, basic earphones and electronic wristwatches are a static market massively over-supplied. Add the other important sectors of wearable electronics - industrial, commercial, military and lastly fashion - and we have a wearable technology business where the number of developers and manufacturers is growing to 17,000 in 2024 (when we include the 2,000 involved in generally applicable key technology).

Over 600 Developers

These figures and many more are derived and explained in the most comprehensive and up-to-date report on the subject, the new IDTechEx “Wearable Technology 2014-2024 [1]” which surveys over 600 developers and suppliers and includes a large number of original tables and figures appraising, explaining and forecasting the situation for the next decade. Uniquely, it analyses wearable electronics as part of the mobile phone, printed electronics, RFID and wristwatch markets, giving numbers and market values. This bigger picture is essential if one is to understand what is about to happen.

You can also discover more at IDTechEx's 11th annual “Printed Electronics Europe [2]” event taking place in Berlin, Germany, on 1-2 April.

For more information visit www.IDTechEx.com [3].

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