



Recommendation 11:



Using 'Wearables' to meet the societal need 'Inclusive well-being and health'

Actual solutions and services:

Examples of applications/products include Apple iOS 8 HealthKit, Live!y, BodyGuardian, Alarm.com, ActiveProtective, VitalConnect Band, Medical Wearable Solutions Eyeforcer, oRoti Labs Limited W/Me2, Cardio family of products, Biovotion AG monitoring platform.

SWOT Analysis

Strengths

- Convenience of use (hands-free).
- Personal safety improvement.
- Health and fitness tracking - Real-time monitoring and information provision to health providers.
- Ensuring better engagement with the environment.
- Endless possibilities for connectivity with other devices.

Weaknesses

- Expensive.
- Not as widely accepted-
- Heat and precipitation can damage wearable devices.
- Power management (constrained power reserves-short battery life) and heat dissipation issues affecting the quality and trust of the devices.
- Not widely accepted – awkward for some.

Opportunities

- Improved service personalisation
- Retrieval of sensory information about individuals
- Compensating disabilities or supporting elderly people in public services/buildings.
- Providing info in sites of interest through VR or augmented reality.

Threats

- Invading privacy of other people.
- Potential misuse of private (biometric/physiological/health) data.
- Risk of hacking and thus misusing wearable devices.

Inclusive well-being and health:

The pursuit of well-being, provision of a primary health care services, realignment between work, personal and community life and a stable work-life balance across all age groups and gender. Some instances of this need include providing basic health care services and personalized services for disabled and physically impaired, child care, maintaining the quality of life (work-life balance, cultural and free time), and reducing the stark economic and social isolation of elderly people. 10 of our informants mentioned this as a priority need. Their comments and concerns embrace issues such as "more appropriate medical care", "improved access to primary health institutions", "social cohesion", and "lack of solidarity and rise of selflessness".

Wearables:

Wearables (wearable computers and interfaces) are miniature electronic devices that are designed to be "worn" by humans, such as a wrist-mounted screen or head mounted display, to enable mobility and hands-free/eyes-free activities.*

*Wearable computers are especially useful for applications that require more complex computational support, such as accelerometers or gyroscopes, than just hardware coded logic. One common feature of wearable computers is their persistence of activity. There is constant interaction between the wearable and user, so there is no need to turn the device on or off. Another feature is the ability to multi-task. When using a wearable computer, there is no need to stop what one is doing to use the device; its functionality blends seamlessly into all other user actions. These devices can be used by the wearer to act as a prosthetic. It may therefore be an extension of the user's mind or body**.*

* Gartner IT Glossary – Wearable Computer, <http://www.gartner.com/it-glossary/wearable-computer/>

** Wikipedia - Wearable computer, https://en.wikipedia.org/wiki/Wearable_computer