WEARIT@CH: Wearable Solutions for the Cultural Heritage Sector

In the archaeological site of Paestum, site guardians, site administrators as well as site visitors in the field of Cultural Heritage will be the focus of work of this take-up project, led by TXT e-Solutions. The main topics are:

- **valorization**: making the cultural heritage fully available and accessible for the visitors and transform the visit into culturally rich experience,
- **cultural mediation**: delivering personalized content, specifically tailored to individual visitors’ needs, interests, cultural level
- **preservation**: assisting the site management in protecting heritage from a variety of risk factors.

Based on the hands-free Zypad wearable PC, damage reports, reference pictures, contacts to local authorities, information about on-site public behaviour of visitors will support the site personnel. Simultaneously the visit of the tourist will be enriched by additional information and, in the long run, by better understanding of the visitors needs.

**The Problem**

Valorization of cultural heritage in museums and archaeological sites still largely relies upon quite traditional approaches. A small percentage of these sites started providing visitors with electronic guides, but in most cases these have basic (if any) multimedia features of low quality and are often not very user-friendly for the larger public.

Cultural mediation aims at understanding the expectations of the visitors: interviews are considered to be the least valid method as they influence people’s behavior and disturb their visit. It is also very difficult to monitor and keep track of the time spent by people in the various areas, demanding a large staff deployment and a long time for the analysis of the data collected. This poses severe practical limitations to such studies.

WearIT@work was set up by the European Commission as an Integrated Project. It has 42 partners with a project volume of about 23.7 million € and a funding of about 14.6 million €.

It is the largest project worldwide in wearable computing.
Preservation in Europe is usually centrally monitored with activities delegated to State-controlled peripheral organizations, and it often conflicts with an unrestricted access by the general public. Several aspects connected to monument preservation often turn into a temporary or semi permanent exclusion of visitors to allow inspection and periodical screening.

The Solution

WearIT@CH proposes a new set of wearable applications, exploiting the capabilities of the Zypad WL1000 (www.eurotech.com) wrist-device, addressing the needs of:

- Visitors will use the Zypad as a personalized multimedia guide, guiding them through the most relevant monuments according to their interests and time available, in a language compatible with their cultural level.
- Site guardians will use the Zypad to support their routine on-site inspections: to report all the damages or anomalies they find and to have direct support in order to assess the status of every monument, including the possibility to require help intervention.
- Site managers and researchers will be able to gather all kind of data about visitors on-site behavior, thanks to the on-board GPS. Such data can include most visited monuments, preferred paths, time spent in the various parts of the site but also composition of the public.

The Benefits

All the main stakeholders in the cultural heritage sector will benefit from the proposed solution:

- Visitors will benefit having the possibility to experience an enriched visit, by wearing technology on their wrist, based on their actual interests, without additional network costs.
- Site Guardians will be fully supported in their daily work by an application specifically designed for their needs, running on a “hands-free” device.
- Site Managers will be facilitated in the understanding of public behavior and needs thanks to the non-intrusive GPS-based solution running on visitors’ devices.

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