

New European ICT research initiative to fight memory problems for older people

Project HERMES aims to develop a mobile memory aid

Wouldn't it be great to have a system that can serve as an external memory for when your own memory fails? With age, we suffer from reduced capabilities to encode new memories of events and facts, particularly remembering events and planning of events in the future. Forgetting names of people and places, things that happened in the past or tasks for the near-future become more and more difficult as we grow older. The recently launched HERMES project, funded under the EU's Seventh Framework Programme (project reference FP7-216709), aims to support people in exactly this combat against this age-related cognitive decline.

A new approach

Existing aids often target only very specific elements of forgetfulness. The approach taken in HERMES is to develop a system that not only supports the user's memory when it fails, but also actively engages the user in cognitive training to avoid over-reliance on the artificial memory. Manfred Tscheligi, director at CURE and coordinator of the project: "Everyone forgets things now and then; that's human. But as we grow older, this can seriously influence our life. Many products either focus solely on the symptoms or neglect them completely. HERMES provides an approach that targets both symptoms and the cause."

The project brings together experts ranging from gerontology to hardware integration to user-centered design to achieve the common goal of cognitively supporting older people. The first steps that are taken in the project are to understand users' memory needs better through a range of user-centered methods, a joint effort of the user partners CURE in Austria and INGEMA in Spain.

Multidisciplinary research

Furthermore, the technology developing partners focus on developing the sensing and perceptual processing technologies required (audio analysis, video analysis) to record the elements in a person's life that should not be forgotten. This is undertaken by Athens Information Technology (Greece), IBM Haifa Research labs (Israel), Bradford University (UK) and TXT e-Solutions (Italy). "The HERMES consortium includes globally renowned research laboratories in ambient intelligence and multimodal interaction, which see HERMES as a golden opportunity to apply their leading edge technologies in the ICT for ageing domain", says AIT's Associate Professor John Soldatos who serves as technical director of the project. One of the early elements of the HERMES system is a mobile reminder application that reminds the user of things he or she should not forget, which is built into a mobile phone. The application is easy to use by employing speech analysis in combination with a touch screen interface. It thereby addresses two limitations many older adults face: small buttons that are hard to press and small displays that are hard to read.

With the project's kick-off in January 2008, a first step has been made towards a system that can support the older person in his or her cognitive needs. The first prototype of the project should

be available by the middle of next year, which will be refined during the second half of the three-year project.

For further information about the project, please visit:

<http://www.fp7-hermes.eu>

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