
HERMES - Cognitive Care and Guidance for Active Aging
FP7-ICT 216709
Specific Targeted Research or Innovation Project

Start date of project: January 1, 2008
Duration: 36 months



D.9.2a Dissemination Package

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Version: 1.1
Date: 30/03/2009
Dissemination level: (PU, PP, RE, CO): PU

Project Co-Funded by the European Commission within the 7th Framework Programme

Document History:

Version	Author(s)	Date	Changes
1.1	Arjan Geven	02/03/09	Refinements performed following comments from the review meeting.

Abstract

This deliverable contains the dissemination materials that have been created as part of the project. In the first year of the project, the dissemination material contains general information about the project.

This deliverable further provides the dissemination materials planning for the next period, i.e. M13-M24, covering 2009.

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1. Introduction

The HERMES project focuses on a range of dissemination activities aimed at reaching the three main target groups of academics, industry and the general public. To this extent, dissemination materials are produced throughout the project, that allow interested individuals and organizations to understand the scope and content of the project and the outputs of the project that can be adopted for further use.

2. Dissemination Materials in 2008

2.1 Project Website

One of the primary dissemination resources to reach this goal is the project website that can be reached under <http://www.fp7-hermes.eu> which presents information for all target groups. The website is kept up-to-date throughout the project (Figure 1). The website portal is further described in deliverable D.9.1. The website as a main source of information also contains all materials that are part of this deliverable.

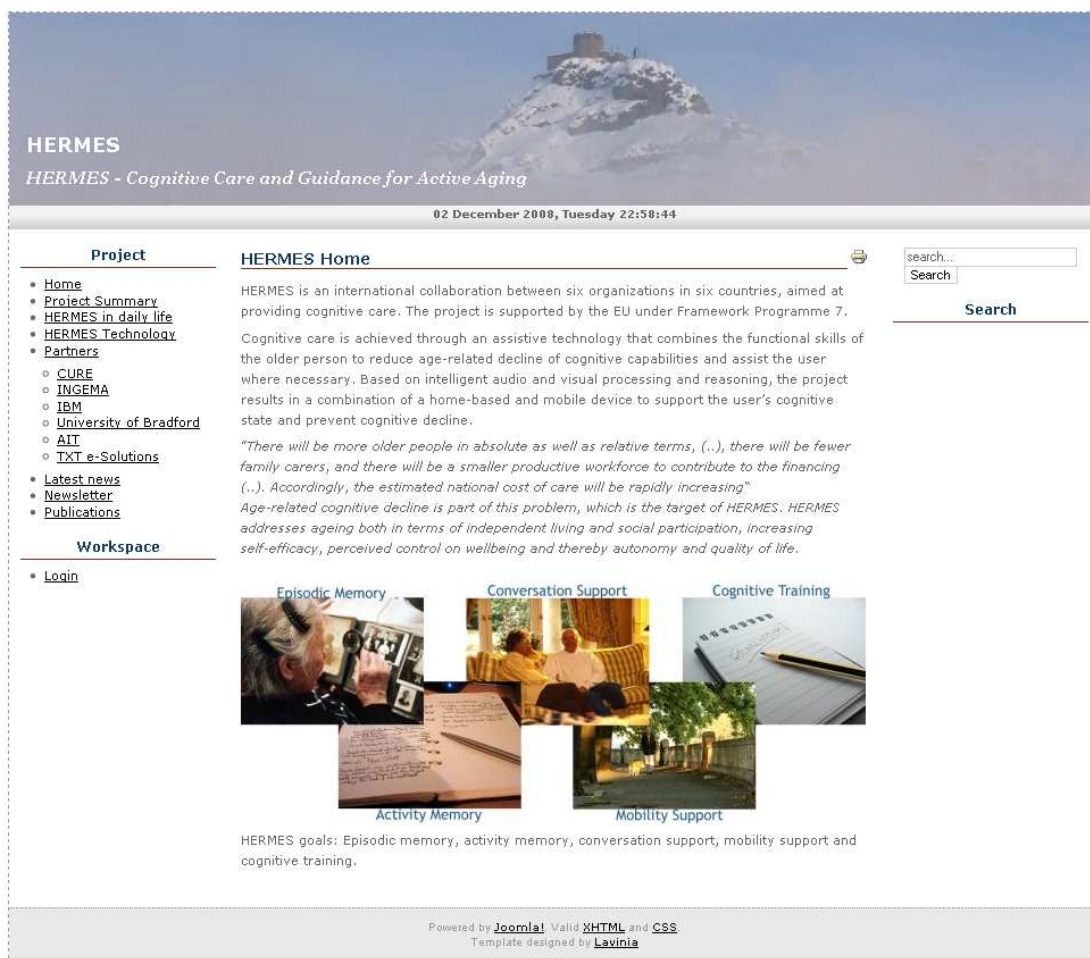


Figure 1: HERMES Website

The website is currently under maintenance and an improved design and layout will be released in Q1 2009.

2.2 Project Newsletter

The second channel through which to reach the general public has been the newsletter, which has been sent to interested people once in August. The second issue will be sent towards the end of 2008 (Figure 2).



Figure 2: First Issue of the HERMES Newsletter

2.3 Project Leaflet

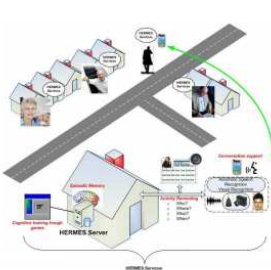
A two-page leaflet has been produced (Figure 3). The leaflet has been distributed at various events at which the HERMES consortium has been present (see also deliverable D.9.3 which reports the dissemination activities undertaken in the first year of the project).

HERMES
Cognitive Care and Guidance for Active Aging

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Project Goals:
HERMES provides an integrated approach to cognitive care. This is achieved through an assistive technology that combines the functional skills of the older person to reduce age-related decline of cognitive capabilities and assist the user where necessary. Based on intelligent audio and visual processing and reasoning, the project results in a combination of home-based and mobile devices to support the user's cognitive state and prevent cognitive decline. HERMES targets at the following five core objectives:

1. Facilitation of episodic memory through the capture of content in audio and image including when, where, who, what and why of a moment, including additional contextual information, such as date and time, but also human emotion, the amount and names of people present, etc..
2. Cognitive training through games with moments that have been captured previously that are related to contextual information.
3. Advanced activity reminding to assist the user's prospective memory in performing everyday tasks and to support independent living. Modelled after human associative memory, contextual cues remind the user automatically and non-disruptively.
4. Conversation support on the grounds of interactive reminiscence based on the recordings of important moments in everyday life.
5. Mobility support to address the needs of the user outside of the house with cognitive support when and where needed.



HERMES
Cognitive Care and Guidance for Active Aging

Expected achievements and impact:
HERMES will be capable of reminding users based on actively set reminders like a typical calendar. At the same time the system facilitates the episodic memory of its users by the provision of important moments. That means that the system "knows" the name of the user's appointment and can e.g. show a photo of him/her and shows the recent topics of their conversation.

The system provides also context based reminding support. If the user e.g. passes certain points of interest the system can remind the user to buy coffee or to buy the pills that the user should take in the evening. In the evening HERMES shows a picture of the pills and reminds the user to take them.

HERMES' core will be the semi-automated reminding system and the search function. HERMES will be capable of detecting those parts of a conversation that should go into the HERMES memory store. These parts might be appointments, prescriptions from the medical doctor, etc. After the detection of such parts HERMES will start an intuitive interaction with the user where he/she can decide on how HERMES shall store the information and on how it shall remind the user.

Furthermore, HERMES will provide a search function which will enable its user to go through past conversations and to search e.g. for emotional parts of a conversation or to search for certain key words. This function will facilitate the users' episodic memory and will enable them to resume past conversations.

Apart from these functions HERMES will provide several cognitive games that will be integrated into the HERMES system and which will enable its users to train their cognitive capabilities.

Technical Approach
HERMES' research challenges require profound research and development in areas such as image and video content processing, including visual pattern recognition, automatic speech recognition, speech analytics, speech data retrieval, emotion detection, text-to-speech synthesis, coding, and noise cancellation.

All the technical work is driven through user-centered design, ensuring that the user is always at the heart of all design decisions. A detailed user analysis provides the geriatric, user-based underpinning of the project.

Project ACRONYM:
HERMES

Project Full Title:
Cognitive Care and Guidance for Active Aging

Project Type:
Small or Medium-Scale Focused Research Action

Project Duration:
30 months

ICT Challenge:
Independent living and inclusion

Contract Number:
216709

Project Priority:
Based on intelligent audio and visual processing and reasoning, the project results in a combination of a home-based and mobile device to support the user's cognitive state and prevent cognitive decline.

Project Coordinator:
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Project Participants:
INGEMA Foundation (Spain)
IBM Haifa Research Lab (Israel)
University of Bradford (UK)
AIT (Greece)
TXT E-Solutions (Italy)

Figure 3: Two-page Leaflet describing HERMES

2.4 Project Poster

The project poster has been prepared for use at various occasions where the HERMES consortium is present (see Figure 4). For example, it was used at the GESPAG Symposium where the topic of e-health in Upper Austrian care was discussed.



HERMES
Cognitive Care and Guidance for Active Aging

A home-based and mobile device to support the user's cognitive state and prevent cognitive decline based on intelligent audio and visual processing and reasoning

Episodical Memory Prospective Memory Cognitive Training

HERMES Past HERMES Future HERMES Training

Overview
HERMES provides an integrated approach to cognitive care. This is achieved through an assistive technology that combines the functional skills of the older person to reduce age-related decline of cognitive capabilities and assist the user where necessary.
Based on intelligent audio and visual processing and reasoning, the project results in a combination of home-based and mobile devices to support the user's cognitive state and prevent cognitive decline.
HERMES will be capable of reminding users based on actively set reminders like a typical calendar. At the same time the system facilitates the episodic memory of its users by the provision of important moments. That means that the system "knows" the name of the user's appointment and can e.g. show a photo of him/her and shows the recent topics of their conversation.

Analysis of User Needs
The system has to deal with some stringent requirements and constraints associated with building context-aware applications for elderly users.
Speech processing applications and speech based emotion detection require customization to the peculiarities of elderly speech. Also, a number of usability issues are raised, given that elderly people are not accustomed to using devices and context-aware applications.
A systematic and complete resolution of these important issues asks for a thorough and consistent understanding of end-user requirements, which is in progress in the scope of the first eight months of the HERMES project.

Technical Approach
HERMES' research challenges require profound research and development in areas such as image and video content processing, including visual pattern recognition, automatic speech recognition, speech analytics, speech data retrieval, emotion detection, text-to-speech synthesis, coding, and noise cancellation.
All the technical work is driven through user-centered design, ensuring that the user is always at the heart of all design decisions. A detailed user analysis provides the geriatric, user-based underpinning of the project.

User Requirements: "Probe" Package

Speech and touch displays for interaction

Lab test environment

Consortium Members:
CURE, Austria
INGEMA Foundation, Spain
IBM Haifa Research Lab, Israel
University of Bradford, UK
Athens Information Technology, Greece
TXT E-Solutions, Italy

Project duration:
start: January 1st, 2008
End: December 31st, 2010

Project funding:
FP7 Call 1 - ICT and Ageing
Ref: 216709

cure
center for usability research & engineering

Figure 4: HERMES Project Poster

3. Dissemination Material Planning 2009

With respect to the next 12 months of the project, the dissemination materials that are planned to be developed are described in the table below.

Dissemination Materials Planning 2009	
<p>Website re-launch</p> <ul style="list-style-type: none"> • The website is currently being moved to a new content management system that allows for more accessible navigation • The design of the website is improved • A blog is initiated about interesting items relevant to the project, e.g. reports on conferences that deal with the topic or literature that has been found useful in the research. The blog will accompany the news section of the project. Where the news section focuses on the HERMES-internal news, the blog takes a broader approach to cover the field in which the project is situated. 	January 2009
<p>Video materials of individual components</p> <ul style="list-style-type: none"> • Video demos of individual components that are developed in the work packages 4, 5 and 6 are recorded and gathered on a project DVD that can be distributed to interested parties. • The video materials are made available on the project website. 	March 2009
<p>Project Brochure</p> <ul style="list-style-type: none"> • Similar to the project leaflet, the brochure provides easily accessible information that explains the background and targets of the project. The brochure is a slightly more detailed document in which more space can be devoted to the individual components as well as their integration. 	July 2009
<p>Newsletter Issue 3</p> <ul style="list-style-type: none"> • The third issue of the HERMES newsletter will mainly focus on the integrated prototype development and the finalization of this important milestone. • The start of the first user trial will be elaborated on. 	August 2009
<p>Video materials describing the first integrated prototype</p> <ul style="list-style-type: none"> • The videos and demos of the individual components are complemented by a video demonstrating the prototype of the total HERMES system, in which all components that are integrated in this first prototype can be shown to interact with each other. 	August 2009

<ul style="list-style-type: none">• Again, the video materials are made available on the project website.	
Newsletter Issue 4 <ul style="list-style-type: none">• The focus of the fourth newsletter will be on the first field trial, presenting the results that have been gathered in the user evaluation with the system.	December 2009