Project Fact Sheet

Social Engagement with Robots and Agents (SERA)

Funded under 7th FWP

Research Area: ICT - Cognitive Systems, Interaction, Robots

Project URL: http://project-sera.eu

Coordinator

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The project SERA (Social Engagement with Robots and Agents) aims to advance science in the field of social acceptability of verbally interactive robots and agents, with a view to their applications especially in assistive technologies (companions, virtual butlers). To this aim, the project will undertake a field study in three iterations to collect data of real-life, long-term and open-ended relationships of subjects with robotic devices.

The three iterations test different conditions (functionalities) of the equipment which will consist of a room equipped with sensors at the subjects' home, a computer and a simple robotic device (the Nabaztag) as the front-end for conversational interaction. The scenario of the field study is taken from the general themes of companion technologies and lifestyle reassurance, mainly health- and fitness related. The sample will consist of three subjects out of the target audience for companion technologies in the first iteration, to which three new subjects will be added in each of iterations 2 and 3. In the first iteration, the Nabaztag will be used with few extensions to the functionality available off-the-shelf, and its social capabilities will be limited. This iteration will serve as a baseline for the following project phases. In iteration 2, sensor equipment, adapted speech recognition, and improved social awareness will lead to more engagement with the robotic interface, possibly with over-estimation and hence disappointment on the part of the subjects. Iteration 3, finally, will apply insights from theory and architecture development and thus represent a further step in the direction of socially acceptable companion technologies.

In each iteration, the setup will be tested in the subjects' home for about a week, and audio and video data will be collected. The project partners will analyse the data in parallel, using different, mainly qualitative, methods. Data analysis will be prepared and accompanied by theoretical and methodological research in order to a) take into account the state of the art and b) ensure quality of the field study. The results from the data analysis will feed back both into theory and architecture development. In particular, the project will use findings from the field study to specify, build and implement a reference architecture for social engagement, and use it for developing a showcase system of combined speech based service applications with relevance to the target field and audience.

Project details

Project partners:

University of Sheffield (UK)

Universiteit Twente (NL)

Universität Duisburg-Essen (D)

Project Acronym: SERA

Project Reference: 231868

Start Date: 2009-01-01

Duration: 24 months

Project Cost: 1,48 million €

Contract Type: Specific Targeted Research Project

End Date: 2010-12-31

Project Status: ongoing

Project Funding: 1,15 million €