mobileWAY
SUPPORT DEMENTIA PATIENTS AND FAMILIES

mobileWAY (mobile Where Are You) is an application to support early stage dementia patients and their caregivers in situations of temporary lonesomeness in a home caring environment.

Focus on dementia care at home

Dementia caregiving in a home environment is often a delicate task for the informal caregivers. Most of the times, families or friends struggle between jobs, hobbies, school and their caregiving responsibilities. Leaving the patient for a certain period of time alone is one of the main problems of informal caregiving.

Concerning both sides of the problem, the dementia patient at home and the caregivers around, mobileWAY offers, for the patient, an easy-to-understand and illustrated information display on the familiar TV screen and, for the caregivers, a customizable, affordable and easy to use application for a tablet or a smartphone.

Information for patients

MobileWAY can display information about the identity, whereabouts and time remaining until the next caregiver returns to the home of the dementia patient (see Fig.1). Besides of displaying the information in a reasonable sentence in appropriate font size, photos and metaphors from the real environment are also part of the concept. Furthermore, caregivers can choose to display the date and time in a message bar along with an individual notification, such as a telephone number or any other individual message.

Integration for caregivers

The caregivers can use mobileWAY on a tablet computer or a smartphone to
display a specific scenario on the TV of the dementia patient. Comfort functionalities, such as reoccurring activities and frequency sorting as well as to-do lists and calendars are considered in the design of the application. As qualitative studies indicated, often more than one person is responsible for the care of a dementia patient. In consequence, mobileWAY also offers so-called multi-caregiver functionalities, such as shared calendars and the ability to push notifications. Ultimately, a forum functionality is supposed to connect caregivers of different patients and therefore enables them to share their experiences while using mobileWAY (see Fig.2).

**Future work**

In the scope of Fraunhofer Portugal’s motto - remarkable technology, easy to use - a working prototype for demonstration purposes is the main goal to demonstrate the capabilities and to test the system with a greater sample size in a more realistic setting.

mobileWAY can be enhanced by including further modalities, such as acoustic reminders for the patients and sensory feedback for the caregiver devices to add more value to the system. Also a possible media feature could allow streaming individual movies, photo slideshows or music on the TV screen. Last but not least, the integration in other individualized, informative systems like personalized health information is one of a many long-term ideas for this project which is - at the moment - in the very early phases of its development.

**Specifications**

Platform independent application for a mobile phone or tablet computer to trigger a TV.

**Functionalities**

Display individual information easy and comfortable on the TV of a dementia affected person at home.

**Requirements**

TV or any other display connected to the internet by Wi-Fi / 3G.

Smartphone or tablet computer with a camera connected to the internet by Wi-Fi / 3G.

**Development status**

Fully specified, designed and evaluated for a tablet, not implemented yet.

**Summary**

mobileWAY is designed as a platform-independent application for a smartphone or a tablet computer and has been tested with two families, each one taking care of one individual dementia patient at home. The results indicate benefits in the quality of life for both the patients and the caregivers.

Besides of the internet connectivity of the TV in the home of the dementia affected person, mobileWAY does not need any additional or expensive hardware. Moreover, it uses widely distributed and upcoming devices, such as TV’s, smartphones and tablet computers and extends their functionalities in an integrated application specially designed for dementia patients and their carers.