

# Chapter 14

## Fostering User Participation in Ambient Assisted Living Projects

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### **ABSTRACT**

*Participatory design has been widely accepted as an effective strategy for understanding and including users' needs in technology development. But the successful integration of user participation depends on the way it is carried out, that is, when and how are the users involved in the process, how are the users' needs and requirements transferred to the technologists, and how is it verified that these requirements have been satisfied in the developed prototypes? These questions can be summarized as, how can one make the users' voice heard across the development of complex ubiquitous healthcare services? Finding adequate answers to these questions normally is complex due to the challenges that arise when using new and untested technology, as is the case of ubiquitous healthcare services. This paper will present answers to such questions from experience gathered during European projects in the AAL (Ambient Assisted Living) area, in which qualified specialists collaborate to provide a pool of competences that are vital in guaranteeing the success of ubiquitous healthcare services.*

### **INTRODUCTION**

The recent AAL (Ambient Assisted Living) research area embraces technological challenges in the context of Ambient Intelligence to face the problem of an aging population in Europe

(Figure 1). It aims at developing technological applications, platforms and services, helping the elderly population to maintain and increase their independent living. The underlying motivation is that the use of such technologies can improve the quality of life of senior citizens, keeping them healthier and more self sufficient, reducing their

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*Figure 1. One of the pilots in the PERSONA project, a nursing home in Odense, Denmark*



dependency on the already overloaded public healthcare and social care services across Europe.

Participatory design has been widely accepted as an effective strategy for understanding and including users' needs in a process of technology development (Douglas, 1993). But the successful integration of participation depends on how it is carried out. When and how are the users involved in the process? How are the users' needs and requirements transferred to the technologists? How is it verified that these requirements have been satisfied in the developed prototypes? In one sentence we are able to summarize the complete research question: how to make the users' voice heard across the development of complex ubiquitous healthcare services?

To find adequate answers to these questions is normally a complex task. This task becomes even more challenging when the technology to be developed is extremely recent and still, to a large extent, untested, as it is the case of ubiq-

uitous healthcare; and when the stake-holders involved in the process are not only the primary and secondary users, respectively the elderly and the care givers, but include also technologists and business oriented actors, such as economists and managers (Figure 2).

## **The Services**

A portfolio of services is currently being created within the scope of a variety of European projects and initiatives. Such projects include for example (MPOWER, 2008), (OASIS, 2008), (PERSONA, 2008), (IsActive, 2009), (REMOTE, 2009), (MyHealth@Age, 2008), in which the Norwegian Centre for Integrated Care and Telemedicine (NST) has been directly involved as project partner, or indirectly as participant in joint workshops. Initiatives are being pushed forward by official bodies and organizations to support those projects and others research and development structures are

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