



010

Interdisciplinary Collaboration as Important Success Factor of Technical Innovations in Adaptable Ambient Living Assistance

W. Schneider¹

Research Assistant
Gender Studies in Science and Engineering, TU München
Munich, Germany
wolfram.schneider@tum.de

K. Scheibl

Research Assistant
Gender Studies in Science and Engineering, TU München
Munich, Germany
katharina.scheibl@tum.de

S. Ihsen

Prof. Dr.
Gender Studies in Science and Engineering, TU München
Munich, Germany
ihsen@tum.de

Conference Topic: Information and Communication Technologies

Keywords: Ambient Assisted Living, Interdisciplinarity, Gender and Diversity Research

In the last decade a small research community of social scientists and engineers has been established under the heading „Adaptable Ambient Living“ (AAL), who attempts to find technical solutions for the demographical change. Technology transfer from basic research poses highest demands to the interdisciplinary cooperation in order to help elderly people. At the same time the product development is coming up to limits of affordability, limits of effectiveness and ethics. The rapid developments in the fields of social robotics and medicine as well as the urgency of the social problem turn AAL into one of the most innovative areas.

The objective of this article is to explore the outcomes of interdisciplinary collaboration along the value added change including the fundamental research, product development and user inclusion site of view.

¹ W. Schneider, wolfram.schneider@tum.de



The Adaptable Ambient Living ASsistant (ALIAS) project aims to develop a mobile robot system that interacts with elderly users, monitors and provides cognitive assistance in daily life, and promotes social inclusion by creating connections to people and events in the wider world. The function of ALIAS is to keep the elderly users linked to the wide society and in this way to improve their quality of life by combating loneliness and increasing cognitively stimulating activities. ALIAS is embodied by a mobile robot platform with the capacity to monitor, interact with and access information from online services, without manipulation capabilities. ALIAS is not designed to replace human-human contacts, but rather, to enhance and promote these through the proposed wide range of integrated services. By serving as a monitor, a cognitive-prosthetic device and a facilitator of social contacts, the ALIAS system will significantly improve the daily life of elderly people.

The ALIAS-project is characterized by a close cooperation of social scientist and engineers. The teams exchange information permanently and an interdisciplinary work of high quality is ensured. There is a permanent feedback between social and technical work packages. The objective is to develop a robot platform that adjusts to the individual wishes and needs of the elderly people. For this purpose the users have been involved at a very early stage of the project. Thus the research Area "Gender Studies in Science" has conducted inquiries, workshops and interviews with different user groups (e.g. seniors, relatives, caregivers and care consultants) and has realized a secondary analysis. The results of the investigations are fed back to the technical partners and have been incorporated into the development of the ALIAS platform. To provide technical solutions that are tailored to the requirements of the user groups a close cooperation in the overall project is necessary. That means the research teams also learn from the feedback of users. It is important, that the issues of the project are an inherent part in the work with elderly, of the interdisciplinary work between the teams in the project and also part of the engineering education, because the experiences and the results of ALIAS integrated in the engineering education.

At the SEFI conference the very early involvement of different user groups in the development process and the results of the conducted inquiries as well as the technical implementation of the mobile robot platform should be highlighted and discussed with the conference attendees. ■