

Carl Zeiss Foundation funds Interdisciplinary practice Study at Heidelberg University with the sum of approximately of 4.5 Million Euros

Can interconnected digital assistance systems enhance the quality of life of people in older age? Scientists in an interdisciplinary research project at Heidelberg University are exploring this question in a representative practice study. The participating researchers want to investigate how well these technical aids can be used and what benefit they achieve. The Carl Zeiss Foundation has made approximately 4.5 million euros available for the SMART-AGE project in the context of its "Breakthroughs" programme. The project is scheduled to run for five years.

The study "Smart aging in the local context: investigating intelligent forms of self-regulation and co-regulation under real-life conditions" (SMART-AGE) involves equipping two groups of 450 people aged 67 and above – in each of the cities of Heidelberg and Mannheim – with a combination of intelligent assistance systems. The latter include apps giving advice to senior citizens on healthcare and how to avoid loneliness, as well as digital language assistants. In the case of health impairments, a soft exosuit for smart support can also, as required, be used to ease back strain during everyday actions. Further elements are a digital platform for physical training and an app to support after-care after hospitalisation. This app aims to help each participant find the way of living appropriate to their needs.

"We look at the older persons involved as our partners who, with interconnected technologies, benefit from new ways of improving their own health and facilitating social participation. We also hope to obtain fresh findings on how older persons can be enabled to use assistance systems in an optimum way," underlines psychologist and gerontologist Prof. Dr Hans-Werner Wahl, senior professor in the Network Aging Research (NAR) of Heidelberg University and one of the research project leaders. Above all, the scientists want to gain information on the extent to which digital assistance systems impact positively on quality of life. In addition, they are interested in questions related to social participation and acceptance of equipment, in particular with respect to user needs. Ethical issues also play an important role, e.g. how can there be guarantees that it is possible to safely save and protect personal health data collected with technical assistance?

"For us, people's quality of life in older age comprises social integration, physical and cognitive health, including prevention, along with well-being and the awareness of aging," explains Prof. Wahl. SMART-AGE combines the expertise of software engineering, medicine and gerontology. It also includes special fields such as ethics, sociology and biomechanics. Further project leaders are geriatrician Prof. Dr Jürgen Bauer, scientist at the Medical Faculty Heidelberg and Medical Director of Agaplesion Bethanien Hospital, Prof. Dr Lorenzo Masia from the Institute of Computer Engineering and Prof. Dr Barbara Paech from the Institute for Computer Science of Ruperto Carola. In the event of positive results of the practice study, the researchers want to develop approaches that integrate the technologies into the daily lives of older persons in a lasting way. Addressees here are, among others, staff in public health authorities and senior citizens' offices.

The Carl-Zeiss Foundation

The Carl Zeiss Foundation has set itself the goal of creating spaces for scientific breakthroughs. As a partner for excellent science, it promotes both basic research and applied research and teaching in the MINT subjects mathematics, information technology, natural sciences and technology. Founded in 1889 by physicist and mathematician Ernst Abbe, the Carl Zeiss Foundation is one of the oldest and biggest private science-promoting foundations in Germany. It is the sole owner of the holding company Carl Zeiss AG and the manufacturing group SCHOTT AG. It finances its projects from dividends distributed by the two foundation companies.

Press release

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Further information

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