

How robotic technology can help in long term care of dementia patients?

K. Rejdak

Neurology, Medical University of Lublin, Poland

A person with amnesic mild cognitive impairment (MCI) and early stages of Alzheimer disease (AD) has difficulties in instrumental activities of daily living, which depend on memory and executive functioning. With the progress of the disease, the help needed for the execution of daily tasks normally increases, leading to a burden on the shoulders of informal caregivers, and in many cases to institutionalization. The number of elderly adults and the incidence of cognitive impairment among them are increasing. As a result, the resources allocated to assisting elderly people will not prove sufficient in the foreseeable future. Robotic assistants could be a way to help people remain safe in their own homes, ensuring their independence in everyday life. In this context, several social robots, which are human or pet-like robots such as NAO, Paro, KASPAR, PaPeRo, AIBO, and iCat aim at providing social support, engagement, and independence for people with special needs? Thus, people with cognitive impairment constitute a group, which may particularly benefit from healthcare robots. The project: Robotic Assistant for MCI Patients at home (RAMCIP) is an EU Horizon 2020 funded project. RAMCIP aims to research and develop real robotic solutions for assistive robotics for the elderly and those suffering from Mild Cognitive Impairments and dementia. This is a key step to developing a wide range of assistive technologies. We have adopted existing technologies from the robotics community, fused those with user-centered design activities and practical validation, with aim to create a step-change in robotics for assisted living.