

User Profiling in Assistive Interface for Aged People Cognitive Assessment, Stimulation and Training

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Abstract: Development of an interface aimed at elderly people assistance in their everyday activities and support of their independent life and social contacts, as well as at cognitive assessment, stimulation, training and rehabilitation, needs a detailed user profile. The user profile in the form of an ontology makes the knowledge base for individual communication, providing all the information about the users collected in advance and updatable in the course of interaction, making the interface personalized, attractive and usable for each particular person. In the presented work the ontology manages the application metadata describing the user's socio-demographic data, living conditions, psycho-social well-being, social contacts, state of physical health and cognitive abilities qualitative assessment, degree of personal autonomy, functional state (performance on ADL and IADL), storing results of tests, providing the multi-factor evaluation to reveal potential risks, to select necessary personalized aid, to correct the treatment strategy, to support or develop cognitive abilities.