

Effects in communication with a babylike robot

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Purpose Aging and accompanying life events such as the death of a partner can contribute to a lack of communication, tenderness and caressing, which might result in social isolation and the feeling of being lonely, both posing health risks (Valtorta, Kanaan, Gilbody, Ronzi & Hanratty, 2016). Emotional robots such as the robotic seal PARO are used in care settings as a means for bodily contact, enabling to cuddle and caress, so contributing to wellbeing (Klein & Cook, 2012). Another category of robots are telepresence robots, which have different forms of embodiment. Well known are commercially available “skype on wheels”-robots enabling video communication with remote relatives and friends. TELENOID is a robot which includes haptic and communication possibilities in telepresence. Its embodiment is similar to a (unborn) baby transmitting the remote person’s voice and mimics. Additionally, arms can be operated to perform a hug. Schloerb (1995) defines telepresence as “in essence the idea that a person is in some sense present in an environment that is physically remote from the person in space. Existing definitions of telepresence and the related concept, virtual presence, depend on the idea that the person feels present in the given environment.”. At Frankfurt UAS we probed TELENOID in various settings in order to get an insight in its potential for vulnerable groups, especially for elderly. **Method** A replication study (Yamazaki, Nishio, Ogawa & Ishiguro, 2012) was undertaken with four residents suffering from dementia in a German nursing care home looking for manageability and effects of TELENOID. Methods applied were: a. introducing staff on how to utilize TELENOID, b. participant observation and video recording of the interventions, c. assessments with MMST resp. Hasegawa-Scale and d. interviewing staff after the intervention. The second project was a joint documentary on TELENOID with people living in assisted living in Germany. A social worker utilized the robot in order to communicate on different topics with the residents. **Results and Discussion** The interventions with the person with dementia and TELENOID took place in the same room where staff tele-operated TELENOID. Despite staff induction, the handling of the interface and communication through the robot at the same time seemed to be challenging. Residents communicated with more ease and three out of four took TELENOID on their lap. In the reflective discussion after the intervention, social workers told that they could imagine utilizing TELENOID, but in different settings. In the documentary, the social worker was introduced to the handling of TELENOID and introduced to the women living in assisted living. Then the social worker was placed outside the living room. The elderly person got TELENOID on her lap and a conversation with the social worker took place. Surprisingly, the elderly person offered soon a personal address and the first name and gave a deeper insight in their loneliness and their life stories, embracing the robot and appreciating the close caressing contact. The babylike embodiment of the robot seems to influence the communication and interaction. The operator has to take into account that s/he talks through this embodiment which seduces to slip into the role of a child. The elderly persons were in a way aware that a social worker was talking to them; the embodiment seduced them to be more open and trustful as they might have been with personal contact. More research is needed in order to clarify whether these effects can be generalized, and if so, how this potential can be utilized in elder care or in therapeutic settings.

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