Robots influencing emotional wellbeing
B. Klein (Convener)

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Participants: Y. Saito (Japan), N. Ishiguro (Japan), K. Ishihara (Japan), R. Yamazaki (Japan), B. Klein (Germany) **ISSUE** Aging societies have to deal with challenges such as finding solutions for improving wellbeing/the quality of life of people suffering from dementia or feeling lonely. Meanwhile, there are several robots available with different embodiments and abilities. Interaction with a robot in form of communication or playing games can be entertaining, fun, and contribute to a diversified life. Communication skills of available robots for the healthcare sector are very basic. Up to now, they are far from being able to communicate like human beings. Robots which are tele-operated (by a remote operator e.g. social worker) go beyond simple interaction. Depending on the skills of the tele-operator they might even offer therapeutic potentials. **CONTENT** This symposium brings together experiences and research from different robotic embodiments all intended to contribute to the wellbeing of and communication with elderly persons. The purpose of the symposium is to discuss strategies to further improve design and methods to undertake research in the effects of robotic developments, but also to develop interventions which are meaningful to elderly. **STRUCTURE** Y. Saito utilises a commercially available cute (tele-operated) robot which plays a game in order to look at effects on the working memory of people with dementia. Although no effects could be observed by the reading span test, the video analysis revealed some positive behaviors during the interventions, such as talking actively with the robot and deep concentration. K. Ishihara produced a talking teddy bear which responds in the local dialect. Pre-recorded answers are selected based on the rhythm resp. prosody of the speech in real time. A trial with an elderly woman showed that conversation was kept ongoing. R. Yamazaki utilizes a baby-like telepresence robot in order to investigate its effects on mitigating dementia symptoms such as agitation and anxiety. He introduces the “reversing role” this robot offers. People with dementia can “take care” of the robot, thus affecting attitudinal change. B. Klein looks at the concept of telepresence and the behavior elderly and tele-operator unfold when utilizing a baby-like robot. Talking through a baby-like robot implies high demands to imagination for the elderly/vulnerable person and also for the social worker/tele-operator to keep in control what they want to disclose. **CONCLUSION** The presentations give further input on the “success story” of elderly’s positive reactions to robots. However, methods utilized vary a lot. The role of robotic embodiment has still to be unveiled. Especially, baby- or childlike tele-operated robots can be a potential for (deep, fulfilling, entertaining) interaction, but also a danger at the same time, triggering ethical issues such as trust and deception (Stahl & Coeckelbergh, 2016).

References

Stahl, B.C. & Coeckelbergh, M. (2016). Ethics of healthcare robotics: Towards responsible research and innovation. Robotics and Autonomous systems, 86, 152-161. https://doi.org/10.1016/j.robot.2016.08.018

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Address: Frankfurt University of Applied Sciences, Germany
Email: bklein@fb4.fra-uas.de