## Sorakubo, Umemuro

M. Sorakubo, H. Umemuro, Two-nearly: moderate communication of awareness to connect families living far apart. Gerontechnology 2008; 7(2):210. This paper proposed a communication system which communicates awareness<sup>1</sup> in a moderate way of family members living at a distance<sup>2</sup>. This system aimed to convey awareness of family members without violating privacy, nor forcing active communication. The system was designed using the analogy of a window in the real world. A prototype of the system was implemented and evaluated by two groups of participants, each of which consisted of older adults and their children living in distant locations. System design and implementation The system employed the analogy of a window in the real world. The concept of the system was that the house of the family members who are living in a physically distant location can be seen through a window at the present location (Figure 1). Users could see the remote family members through the window as if they were living next door. The users are not obliged to directly communicate or converse, but can still feel the awareness of each other: "He seems to be at home.", "She seems to be walking across the room, maybe preparing dinner.", and so on. The line of sight is limited to the view through the window frame, and the audio is not transmitted constantly, minimizing privacy issues. When the user does not wish to be seen even through the window, the user can shut the curtain to cut off the view. On the other hand, when the user wishes to talk to the remote family member directly, the user can open the window and knock on the window glass of the remote house. If the remote family member is at home and agrees to talk, the remote user can also open the window and start talking. The proposed system concept was first discussed in focus group interviews with 16 older adults. Then a prototype was implemented as a network system, employing touch screen displays and video streaming technology over the Internet. Evaluation and discussion The implemented prototype was first tested by a group of households with older parents and children, and was further improved. Then, two groups of families consisting of elderly and their children's households participated in evaluations. Each group of participants used the system for one week. The subjective evaluation by the participants as well as quantitative data of their usage suggested that the proposed system was to some extent successful in offering moderate awareness of opponent members. Participants did not report that they perceived any violation of privacy or obtrusiveness from the system. The quantitative data showed that the participants moderately interacted with the system by occasionally opening the windows and/or having direct conversations. In order to improve the proposed system further, it should be evaluated by a larger number of evaluators. In addition, it should also be tested by different categories of users, such as children.

## References

- 1. Gaver G. Computer Supported Cooperative Work 2002;11:475-493
- 2. Go K, Carroll JM, Imamiya A. : In: Home Informatics and Telematics: Information, Technology and Society. Dordrecht: Kluwer; 2000; pp 125-140

Keywords: awareness, family, communication

Address: Tokyo Institute of Technology, Japan; E: umemuro.h.aa@m.titech.ac.jp

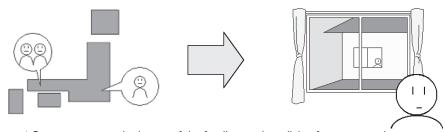


Figure 1 System concept: the house of the family members living far away can be seen through a window as if it is next-door