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Design of a caregiver collaboration tool using subtle group awareness

Caregiving for seniors with mild cognitive impairments (MCI) brings the challenge to provide the right care task at the right time, thus requiring highly cooperative collaboration among caregivers [Christensen and Gronvall 2011]. Caregiver burden [Pollard 2008] refers to caregivers' stress caused by MCI patients' problems with disorientation and wandering, which quickly deteriorates as the illness progresses [Schoenmakers et al. 2009]. This paper presents a design case study on the development of a collaboration tool for formal and informal caregivers. The design was informed by user research on caregivers' group awareness focusing on emotional experiences of caregiving, which has been to the best of our knowledge, rarely explored in related studies on collaborative care. This design aims at enhancing caring experience through subtle cues on care activities and whereabouts of seniors; the delicate balance between awareness and privacy was considered throughout the development process.

Figure 3: Map interface of emergency situation, Design4Health 2013

Figure 1: Interface design with subtle group awareness, Design4Health 2013

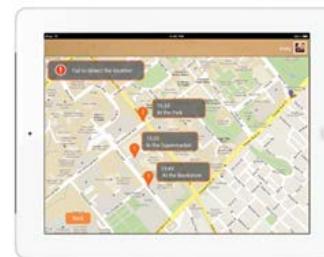Figure 2: History interface of seniors' conditions, Design4Health 2013

The evaluation of an iPad application was conducted with seven participating caregivers to examine if the concept is understandable and the design is useful. Roughly 70% of all functions were implemented in a PowerPoint animation and presented on a laptop. By completing preset functional tasks and leaving comments about the design, the participants showed that they appreciated the awareness gained by engaging with the interface design and expressed that they would like to use it to manage their care work. Particularly, the solution could minimize miscommunication between caregivers by inviting caregivers to articulate their activities in collaboration. For future work, participants suggested to explore how the application could be further tailored to address the needs of the senior.

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