

# POSTER PRESENTATION 3: PHYSICAL AND MENTAL HEALTH

## Designing smart display table for senior care service based on service design research

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**Purpose** Seniors' needs for smart home care products and services have been diversified in many ways (Moraitou et al, 2017). Many studies have shown that intelligent display products and related services have big potential for meeting various needs of older people, from cognitive to physical and emotional and social needs. Accordingly, technical and social expectations for user-centered innovative products are growing. The combination of user-centered innovative products and elderly care services can support to overcome difficulties in the senior care and rehabilitation fields. Besides, the advanced IOT technology could enable seniors to benefit from even telerehabilitation services. The purpose of this study is to draw a blueprint for developing new intelligent display products and related services that reflect various needs of senior users. **Method** We conducted a three-step and mixed research design study: literature review or desk research; qualitative empirical research; and service mapping research (Merkel & Kucharski, 2019). Next, we derived from meaningful service context keywords in daily lives of senior users through design thinking methods. Then we created senior-user personas. Finally, we strategically visualized experiences derived from service scenarios according to senior types and mapped them by themes (Figure 1). The first research obstacle is to incorporate senior users' experiences into service flows and contexts and identifying "empty" or "missing" service areas. The second research challenge is to find methods and strategies so that the derived opportunity factors can be presented in a senior-friendly and participation-motivating way. To overcome these two research challenges, we developed 24-7 daily-living situation maps and scenarios and presented them to research participants and successfully motivated them to participate in the whole process of research. **Results and Discussion** The theme of care service for senior users derived through this process is as shown in (Figure 1), represented as follows 1) Personalized exercise service based on motion recognition for physical rehabilitation; 2) Gamification content for the prevention of dementia and cognitive dysfunctioning; and 3) Contents of interactive art activity for emotional therapy and mental vitality. Each field could be presented as a business positioning suitable for the B2C market and the B2B market. As a follow-up study, we developed a demonstration version of smart display table and continued to modify senior-user oriented service design models. As of now we found that intelligent display products and its related services need to be modified in more segmented ways.

### References

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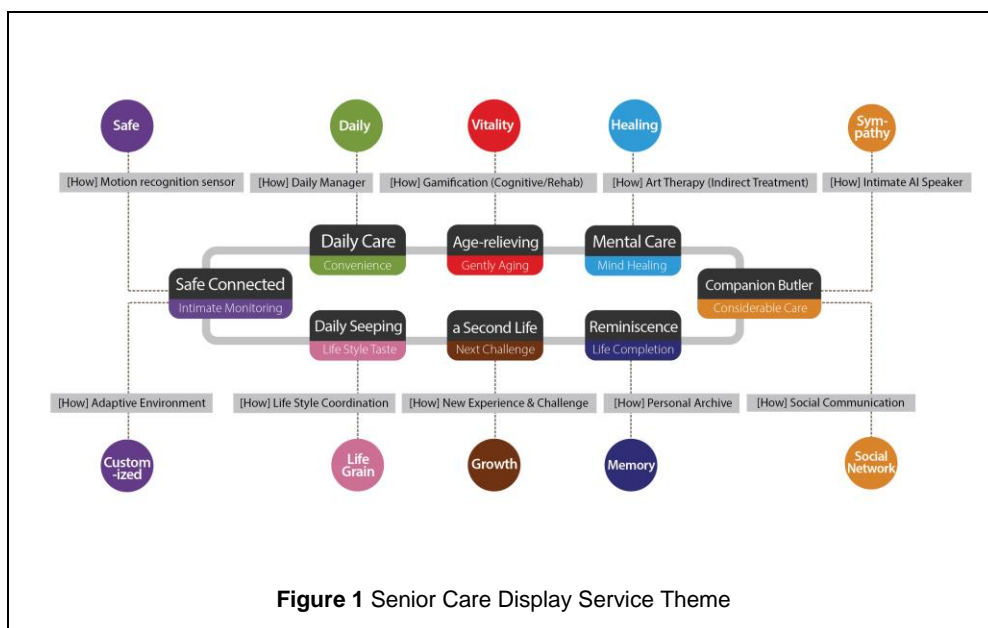


Figure 1 Senior Care Display Service Theme