

S.H. Budde, F. Stulp, D.L. Sancho-Pradel. *Using persona descriptions as a communication tool in interdisciplinary system design*. *Gerontechnology* 2008; 7(2):82. Designing, implementing and testing novel systems for the elderly requires researchers from a wide range of research areas to cooperate and communicate. 'Personas', a type of narrative user description, can enhance the communication between the different expert groups to focus on the development of technology that is relevant to the user¹. One main criticism against this concept is that the resulting user description does not represent real data². This is especially true in the medical domain. As each patient in a user group suffers from different diseases, it is difficult to find a general description that fits many users. In this paper, we account for these facts and present an approach for creating personas that overcome these limitations. **Methods** Following Mulder & Yaar^{3 p19}, personas are credible when: (i) each persona represents real users that you care about. (ii) the personas' attributes and descriptions are accurate and complete. (iii) the set of personas should cover a significant range of your users. Therefore, we use a clustering-based approach from Annicchiarico et al.⁴ within which the group of patients is clustered into subgroups, each group representing individuals that have a similar profile of disability. This profile is represented as a list of keywords. We use this form of description and transform it into a narrative description of the functional disabilities covered by the corresponding cluster. We then add an additional narrative description dealing with a hypothetical user story which is common for the user group. Finally, we add a description of the capabilities and difficulties that are encountered during the activities of daily living (ADLs), to emphasize important aspects of assistance needs of the user group. This information is generated by combining the information from the qualitative user description keywords and expert knowledge provided by a medical expert. Afterwards, the resulting persona has to be proofread by at least one other medical expert to validate its scope. **Results and discussion** The results of this method are narrative user descriptions that fit a significant part of the user group. As these are based on a clustering-based analysis of the user group, these personas can account for real data. Due to the fact that at least two medical experts are involved in the process, it is ensured that the information provided by the description is reliable from a medical point of view. The illustrative nature of the description allows developers without medical expertise to understand the capabilities and difficulties of the described user group. In addition, the information provided by the persona can also be used to create credible scenarios of system use in order to get a more integrated view of the problem and the appropriate solution to it.

References

1. Pruit J, Adlin T. *The persona lifecycle: Keeping people in mind throughout product design*. San Francisco: Morgan Kaufmann; 2006
2. Chapman CN, Milham RP. *Proceedings of the Human Factors and Ergonomics Society*; 2006; pp 634-636
3. Mulder S, Yaar Z. *The user is always right: a practical guide to creating and using personas for the Web*. Berkeley: New Riders Press ; 2007
4. Annicchiarico R, Gibert K, Cortés U, Campana F, Caltagirone C. *Journal of Rehabilitation Research & Development* 2004;41:835-846

Keywords: user description, interdisciplinary teams, communication tool

Address: University of Bremen, Germany; E: sandrab@informatik.uni-bremen.de