

## Alexa, how do smart speaker support ageing in place? – Results of a rapid review and content analysis

S. Merkel, A. Kucharski

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**Purpose** Technology has the potential to support active and healthy ageing. However, to date, only very few technologies designed for ageing users have been able to compete on the market (Peine & Neven, 2019). US tech-companies such as Google, Apple and Amazon have developed so-called smart speakers – Google Home, Amazon’s Echo, and Apple’s HomePod. These devices are equipped with speaker(s) and microphones. Users can ask questions (such as “Alexa, what is the weather forecast for today”) or give orders (“Ok, Google play my favourite music.”). In addition, users can download applications (“skills”) to personalize the devices. Due to the easy interaction, smart speakers are also increasingly discussed within the field of Gerontechnology. A growing amount of smart speaker applications and customizations involving smart speaker technology for older users support this trend (O'Brien et al., 2019; Shalini et al., 2019). Hence, HomePod and co. appear to be a technology that suits the needs of older persons (Vollmer Dahlke & Ory, 2017). Even though first efforts have been made (Shalini et al., 2019; Choi et al., 2018), up to date, little is known about how older users interact and engage with these devices and how they use them. This paper tries to argue that routines of older users for this new technology need to be understood in order to unlock its potential. **Method** Based on a rapid literature review, we summarize the current developments of smart speakers within the field of Gerontechnology. In addition, we analyze skills/applications specifically targeting older users based on their description. **Results & Discussion** In a first step, we explain the functionalities and opportunities of smart speakers. We also show how the technology itself has evolved within the last couple of years. Based on the results of our literature review and the analysis of skills and applications we show current developments and use cases. We argue that smart speakers respectively voice control have the potential of being a technology with a potential huge impact in the field of Gerontechnology. However, we conclude that little is known about the perception of smart speakers by older persons. The same applies to patterns of use and ethical questions (i.e. the question if and how the devices are personalized and what implications arise). We argue that current research focuses more on technical possibilities rather than on social aspects.

### References

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**Address:** Ruhr-University Bochum, Germany

**Email:** [sebastian.merkel@ruhr-uni-bochum.de](mailto:sebastian.merkel@ruhr-uni-bochum.de)