The Influence of User Openness on Acceptance and UX of Smart Speakers

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We compared “open” with “non-open” persons (based on the Big Five (OCEAN) model) in a Wizard-of-Oz study setting. Subjects had to complete everyday tasks in cooperation with a smart speaker-replica (with both natural and text-to-speech voice feedback) as compared to the baseline of traditional/manual way of interaction.

18 people agreed to participate in our user study (7f, 11m; 72% aged 18-25, 22% aged 25-32 and 6% aged 33-40) and could be assigned into the personality groups “open” and “non-open”.

Study Setup

Study Room
- Laptop for Questionnaires
- Timer
- Smart Speaker
- Light Switch

Wizard Room
- Laptop with Voice Snippets
- Phone
- R1 (Wizard)
- Light Switch

Results

- We could not reveal a clear statement about the impact of “openness” on the acceptance of smart speakers. In addition, we have also no clear answer whether or not users prefer a natural over a computer-generated voice (text-to-speech, TTS) or vice versa.
- However, smart speakers are still not fully accepted, regardless users’ “openess”. For everyday tasks like switching the light on, the traditional way of interaction is still preferred.
- Future research and design has to focus aspects like design (pragmatic and hedonic qualities), and especially privacy issues.