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Human–AI Interaction in Hearing Aid Fitting: Insights from the Use of a Digital Assistant

Modern hearing aids can be precisely adjusted to individual hearing loss and personal sound preferences thanks to numerous configuration options. In practice, however, this fine-tuning is complex: many users have difficulty articulating their sound preferences, and changes must be tested under realistic listening conditions.

A digital assistant that uses artificial intelligence (AI) to adjust hearing aid settings can significantly support the fitting process. As a smartphone app, it is always available and optimizes settings directly in the target environment. This allows immediate evaluation of the results, enabling hearing aid wearers to find their individually preferred settings.

This presentation introduces opportunities and challenges of such an assistant. For this purpose, we analyze user data collected during live operation under largely uncontrolled conditions. This insight into user behavior highlights various aspects that the interaction between user and assistant must address. Based on this, we present approaches for further development to enhance the effectiveness and practical benefits of the system.