

Institute of Interactive Systems and Data Science
Technische Universität Graz

Voice-based Human-AI Interaction: Voice-based discussion of concepts with a chatbot

Master thesis

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Studies: Software Engineering and Management, Computer Science, Computer Science Teach Education, Computational Social Systems

When learning new concepts, it is helpful to explain these concepts to oneself. However, what happens when the self-explanation is incorrect? In a directed approach, an authority (usually a teacher) corrects this. In a dialogic approach, an authority or a peer put their explanation forward, as a basis for the ensuing reflection or discussion about differences.

In prior work, colleagues at the University of Toronto have implemented a mixed web- and voice interface to support this process, and compared this with a text-only approach. Expectations were, that the voice-based interaction would be easier and thus preferred by students. Surprisingly, this wasn't the case.

This master thesis constitutes follow-up work, in which a fully voice-based interface (you could use Whisper from OpenAI) should be built, and explored.

Required skills or interest in acquiring these:

- Programming: Java, Typescript
- Basics of user interface design (even if this will be mostly a voice interface)
- User studies, including exploratory and experimental studies.

Interested? Contact viktoria.pammer-schindler@tugraz.at