

# **ChaLL - A Chatbot for Language Learners**

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## **Abstract**

Speaking practice is essential for foreign language learning, but setting up effective and engaging speaking activities in the classroom is challenging. The goal of the ChaLL project is to create a prototype of a digital speaking companion that can be used to develop language learners' interactive speaking skills. Our goal is to develop a voicebot with which learners can lead both informal open-ended conversations and solve specific tasks that train their ability to use speech functions (e.g. expressing an opinion, asking for clarification) necessary to carry out real-life activities (e.g. planning a picnic). Making the voicebot work as a dialogue partner entails solving a number of challenges, such as: - Error-preserving Speech-to-Text, i.e. accurately transcribing the spoken output of young English language learners, including preservation of speaker errors. - Detecting and categorizing errors in the transcripts of the spoken output and providing corrective feedback. - Adjusting/Adapting the bot's response to the learner's output based on the detected English proficiency level and the occurrence of error types. - Developing and aligning different dialogue models that offer an engaging experience, from open-domain chitchat to focused language learning tasks. In this presentation, we will discuss how we collected and annotated the language data necessary to train our models, how we solved the aforementioned NLP challenges, what our system architecture looks like and what design considerations we have made. We will also give including a short demo. We will conclude with the main lessons learnt and an outlook for future developments. The presentation will introduce and report results from the innovation project „Towards a Voice-based Chatbot for Language Learners (ChaLL)”, which is funded by Innosuisse and is jointly developed by PHZH, ZHAW and the University of Zurich in 2023-2024.