

Presentation

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Text-to-Speech (TTS) for Seven Swiss German Dialects

Abstract:

SlowSoft GmbH develops text-to-speech (TTS) components for Swiss German dialects. By mid-2019, TTS for seven major dialects (GR, ZH, BE, LU, SG, BS, VS) will be available, each at first with a single voice (three male, four female voices).

Typical applications of Swiss German TTS include speaking aids (e.g., for ALS patients), language learning tools, chatbots, robots, and digital assistants. Even for applications that finally use recorded speech as output (e.g., IVR systems), TTS may provide an excellent means to create prototypes during the development phase of the application.

Whereas the voice generation component (the "back end") of Swiss German TTS is comparable to that of other languages, the NLP component (the "front end") is extremely challenging due to the fact that there is no standardized way of writing Swiss German. A desirable choice of textual input for most TTS applications would therefore be to use Standard German as input, which, however, would require a full-fledged translation from Standard to Swiss German. A somewhat easier solution is the use of normalized Swiss German, i.e., a word-by-word representation of the Swiss German content by means of Standard German words. The currently adopted solution lies somewhere between these extremes. The presentation describes the state of development of the Swiss German TTS system, with a focus on the challenges associated with the input text processing.

Biography: Christof Traber studied informatics and holds a PhD in Electrical Engineering from ETH Zurich. He was/is co-founder of the speech-technology companies SVOX AG (acquired by Nuance Communications in 2011) and SlowSoft GmbH (concentrating on minority languages). His experience and interests are language-independent TTS system architecture and development, currently with a focus on languages without standardized text representation (Swiss German).

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