

---

# Live presentations to a multilingual audience: personal universal translator

**Chris Wendt**

---

## **Abstract**

The fact that just about everybody carries an internet-connected smartphone enables us to break the language barrier for in-person meetings, presentations, talks and lectures. Using the smartphone in a smart way to connect the audience with the speaker allows all audience members to follow along and participate, regardless of language. Presentations often include specialized vocabulary, like people's names, names of products, company specific acronyms and abbreviations. This is not a challenge for text translation, but in speech translation unknown words are mapped to the phonetically closest known word, which can have a catastrophic effect in translation. Customization of the speech recognition system helps here. We are showing a new and very convenient method to customize the speech recognition system, thus providing a useful automatic interpretation and translation of the speech. It uses the slide deck's content, slides and notes, to customize the SR system at the start of the session, allowing the speaker to use the terms used in the deck, adding the specific terms to the SR system's standard vocabulary. The system displays the transcript in the speaker's language, or a language of choice on the presentation screen, and each audience member may follow in their own language, on their own device. The system extends to the audience. The audience member can ask a question in any of the supported language, speaking or typing into the mobile device. All audience members can read the question in their own language, as well as the answer of the presenter. This makes microphone-runners practically unnecessary. A benefit for audience members with hearing loss is the availability of full transcripts of what everybody is saying. We'll show a few examples situations where this has proven useful. This session provides a view into conducting truly multilingual presentations with full audience participation regardless of language and hearing abilities.