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Design and Evaluation of a Limited Two-Way Speech Translator

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We present a limited speech translation system for English and colloquial Levantine Arabic, which we are currently developing as part of the DARPA Babylon program. The system is intended for question/answer communication between an English-speaking operator and an Arabic-speaking subject. It uses speech recognition to convert a spoken English question into text, and plays out a pre-recorded speech file corresponding to the Arabic translation of this text. It then uses speech recognition to convert the Arabic reply into Arabic text, and does information extraction on this text to find the answer content, which is rendered into English. A novel aspect of our work is its use of a statistical classifier to extract information content from the Arabic text. We present evaluation results for both individual components and the end-to-end system.

Full Paper

Bibliographic reference. Stallard, David / Makhoul, John / Choi, Frederick / Macrostie, Ehry / Natarajan, Premkumar / Schwartz, Richard / Zawaydeh, Bushra (2003): "Design and evaluation of a limited two-way speech translator", In *EUROSPEECH-2003*, 2221-2224.