

Sec 1.2

Challenges in Translation of Speech

Challenges in translation of speech

- Audio challenges
 - Multiple speaker
 - e.g. Meetings
 - Challenges:
 - Overlapping voice
 - Background noise
 - Audio segmentation



Challenges in translation of speech

- Audio challenges
- Text-Speech mismatch
 - Disfluencies
 - Hesitations: “uh”, “uhm”, “hmm”,
 - Discourse markers: “you know”, “I mean”,...
 - Repetitions: “It had, it had been a good day”
 - Corrections: “no, it cannot, I cannot go there”
 - No punctuation
 - Let’s eat Grandpa !
 - Let’s eat, Grandpa !



Challenges in translation of speech

- Audio challenges
- Text-Speech mismatch
- Error propagation
 - ASR errors worse after translation
 - More difficult to compensate by human
 - MT adds additional errors



Reden (engl. speeches)



Reben (engl. vines)

Challenges in translation of speech

- Audio challenges
- Text-Speech mismatch
- Error propagation
- Data
 - End-to-End data:
 - Growing amount but still limited
 - Integration of other data types
 - Speech transcripts
 - Parallel data

Challenges in translation of speech

- Audio challenges
- Text-Speech mismatch
- Error propagation
- Data
- Partial information
 - Online: Translate during production of speech
 - Generate translation before full sentence is known

