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Improved Spoken Language Translation Using N-best Speech Recognition Hypotheses

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We intended to demonstrate the effect of using N-best speech recognition hypotheses for improving speech translation performance. A log-linear model, which integrated features from speech recognition and statistical machine translation, was used to rescore the translation candidates. Model parameters were estimated by optimizing an objectively measurable but subjectively relevant translation quality metric. Experimental results have shown that the proposed N-best approach improved translation quality over the conventional single-best approach. The improvements were confirmed consistently by several automatic translation evaluation metrics.

Full Paper

<u>Bibliographic reference.</u> Zhang, Ruiqiang / Kikui, Genichiro / Yamamoto, Hirofumi / Soong, Frank K. / Watanabe, Taro / Sumita, Eiichiro / Lo, Wai-Kit (2004): "Improved spoken language translation using n-best speech recognition hypotheses", In *INTERSPEECH-2004*, 1629-1632.

1 of 1 23/06/2010 11:00