BRANDT'S GLR METHOD AND REFINED HMM SEGMENTATION FOR TTS SYNTHESIS APPLICATION (MonAmOR8)

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Abstract :

In comparison with standard HMM (Hidden Markov Model) with forced alignment, this paper discusses two automatic segmentation algorithms from different points of view: probabilities of insertion and omission, and accuracy. The first algorithm, hereafter named the refined HMM algorithm, aims at refining the segmentation performed by standard HMM via a GMM (Gaussian Mixture Model) of each boundary. The second is the Brandt's GLR (Generalized Likelihood Ratio) method. Its goal is to detect signal discontinuities. Provided that the sequence of speech units is known, the experimental results presented in this paper suggest to combine the refined HMM algorithm with Brandt's GLR method and other algorithms adapted to the detection of boundaries between known acoustic classes.

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