

A New Approach of Speaking Rate Modeling for Mandarin Speech Prosody

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Abstract

A new approach of Mandarin-speech prosody modeling to consider the effects of speaking rate is proposed. The approach is a modification of our previous prosody labeling and modeling method to take speaking rate as a continuous independent variable and let prosodic-acoustic features and some parameters of prosodic models depend on it in order to count its influences. A speaking rate-dependent hierarchical prosodic model is hence constructed from four speech corpora of a single female speaker with fast, normal, medium and slow speaking rates. An analysis of the effects of speaking rate on the model parameters showed that they agreed well with our prior knowledge. So, the proposed approach provides a systematic and effective way to quantify the effects of speaking rate on Mandarin-speech prosody.

Keyword : speaking rate, prosody modeling