

EXPERIMENTS WITH UNIT SELECTION SPEECH DATABASES FOR TTS USING CONCATENATIVE SYNTHESIS FOR MARATHI LANGUAGE

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Abstract

In this paper, we present the concatenative text-to-speech system and discuss the issues relevant to the development of a Marathi speech synthesizer using different choice of units: words, phonemes as a database. The most important qualities of a speech synthesis system are naturalness and intelligibility. We synthesize the Marathi text and perform the subjective evaluations of the synthesized speech. As a result, (1) 81% of speech synthesized by the proposed method was preferred to that by the conventional method, (2) the mean opinion score (MOS) was 3.94 in a five-point MOS test, and 37% of the synthesized speech had the same naturalness as natural speech (3) Histogram for various speech databases shows the effectiveness of the proposed method.

Keywords: Speech synthesis, concatenation, unit size, histogram.