The Development of Pashto Speech Synthesis System

Abstract

This paper presents a novel Pashto text-to-speech (TTS) synthesis system based on data driven techniques such as Classification and Regression Tree (CART), Bigrams, and Non Uniform Units (NUUs). A modular concatenative TTS system has been developed for the Pashto language. Speech synthesis is carried out through a series of steps with the intention to provide a gradually more absolute transcription of the text, from which the final speech signal is then generated. The steps can be divided into two modules; a Natural Language Processing (NLP) module and a Digital Signal Processing (DSP) module. These steps incrementally enhance the information derived from the input and put it on a generally accessible internal data structure. The goal is to obtain enough information on the internal data structure so as to be capable to obtain an intelligible and natural speech.
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References


Index Terms

Computer Science
Signal Processing
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Keywords
Pashto speech synthesis  Classification and Regression Tree  Non Uniform Units
Pashto TTS