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.
References

- P. J. Farrugia Text-To-Speech Technologies for Mobile Telephony Services; MSc thesis, Dept of Computer Science and AI, University of Malta 2005.

Index Terms

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