
Abstract

A high-performance low-complexity neural network wordspotter was developed using radial basis function (RBF) neural networks in a hidden Markov model (HMM) framework. Two new complementary approaches substantially improve performance on the talker-independent Switchboard corpus. Figure of Merit (FOM) training adapts wordspotter parameters to directly improve the FOM performance metric, and voice transformations generate additional training examples by warping the spectra of training data to mimic across-talker vocal tract length variability.