DONOR SELECTION FOR VOICE CONVERSION (MonAmOR8)

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Abstract :

Voice conversion techniques enable the transformation of a source speaker's voice to that of a target speaker's automatically. The performance of any voice conversion algorithm depends on the source−target pair chosen. This study focuses on the problem of source speaker (donor) selection from a set of available speakers that will result in the best quality output for a specific target speaker's voice. A voice conversion database of 20 speakers (10 male, 10 female) is collected. 180 conversions that cover all male−to−male and female−to−female voice conversion combinations are performed using a codebook mapping based method. A listening test is performed in order to determine the subjective scores for similarity of the output to the target speaker's voice and the output quality. The results show that selecting the appropriate donor improves voice conversion performance significantly. Preliminary analysis is performed for automatic donor selection with multilayer perceptrons.

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