Microphone Efficacy for Facilitation of Mobile Speech-based Data Entry

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Abstract:
Our research focuses on testing the efficacy of different microphones for use with speech input under mobile usage conditions. Under controlled lab conditions, we simulated realistic mobile device use by asking participants to avoid hazards while walking and entering data via speech into a mobile device – thus replicating the situation faced when walking down a street, for example – in order to test a variety of microphones. We introduced different background noise levels to determine the effect of environmental noise on the microphone use. We based our study on a non-continuous, speaker-independent, client-based speech recognition engine in order to make a recommendation on microphone use for future testing of multimodal web applications. This poster presents the experimental method and results of our study.