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Title: Insights into Speech Production from Automatic Speech Recognition Algorithms

Abstract:
Contemporary algorithms for performing automatic speech recognition (ASR) integrate acoustic models that extract information from the speech signal with language models that describe the organization of sounds and words in a language. Like the importance of ‘top-down’ processing in human speech perception, the relevance of non-acoustic information to successful ASR applications indicates that the acoustic signal alone is insufficient for identifying the sounds and words in a speech utterance. Such findings have important implications for investigators who study the control processes by which humans produce speech. In this presentation, I will present a computational and neural model of speech production whose output is insufficient by design.

Bio:
Kevin Reilly is an assistant professor in the Department of Audiology & Speech Pathology. His research investigates the neurophysiology and motor control of spoken language. Dr. Reilly received a PhD in Speech & Hearing Sciences from the University of Washington and completed a post-doc in the Department of Cognitive & Neural Systems at Boston University.