

## **Making Voice-Activated AI Accessible and Fair to People Who Stutter**

*J. Scott Yaruss*

*Michigan State University*

### **ABSTRACT**

Disfluencies are common in conversational speech, especially among people who stutter. Despite their capabilities, individuals who stutter often face employment discrimination, poorer labor market outcomes, and societal stigma. The widespread integration of automatic speech recognition (ASR) into voice-activated artificial intelligence (voice AI) applications presents significant challenges for people who stutter.

Our project aims to develop accessible voice-recognition technology using advanced AI to improve the quality of life and employment access for people who stutter. We will create inclusive training datasets, annotate for accessible ASR, and develop new ASR deep learning models. Our research will identify access barriers and facilitators, set improvement priorities, and evaluate newly developed inclusive voice-activated AI.

Dr. Yaruss is a Professor at Michigan State University and Director of the Spartan Stuttering Laboratory. With over 30 years of research and clinical experience, he specializes in stuttering. We are seeking participants who stutter to help develop and evaluate this technology. Your involvement will ensure the creation of more inclusive voice-recognition systems. For more information or to participate, please contact Dr. Yaruss at [jsy@msu.edu](mailto:jsy@msu.edu). Your participation is crucial for advancing this research and enhancing voice AI accessibility.