

Existing Approaches (Quantified and Parametrized)



Al Engine for Discovery of Optimal Personalized Path to Fluency



Audio Database: Diverse Fluency Levels and Stuttering Type

Successful Personal Path From **Heavy Stuttering to Fluency**





Decision-Support Metrics and Personalized Express Coaching

Stuttering Rates

Identification of Emotions from Audio or Physiological Data

Stuttering Correlation with **Emotions**

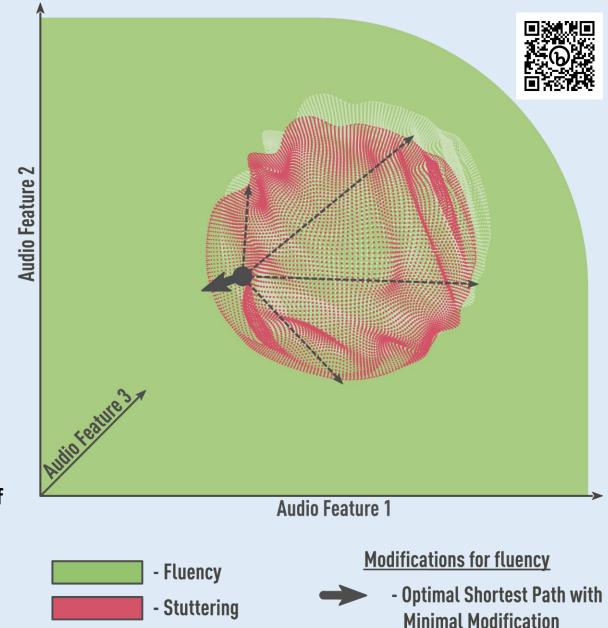
Diverse Set of Words Around Selected "Hard" Words

Optimal Modifications of

Stories Containing Speech for Natural Fluency | All "Hard" Words for Practice

Al-Driven Fusion & Optimization of the Best Techniques

- Main Goal: Discovery of optimal, fast and easy-to-follow personalized path to natural and persistent speech fluency
- Key Edge: Quantification and optimal combination of the best speech modification techniques and successful personal path to fluency of one of the authors
- Evolving Personalization: Using user-specific speech recordings, personal list of "hard" words and physiological data, our algorithms discover evolving personalized fluency regions and fine-tune optimal speech modification
- No Confusing or Complex Descriptions: Discovered optimal speech modifications are directly presented to the user as modified audio files for each "hard" word
- Reporting Objective Metrics: Stuttering rates / types and emotional states from speech recordings
 - for quick optimal selection and performance monitoring of any fluency shaping technique
 - for objective measuring of stuttering anticipation levels
 - for discovery of best / worst emotional states for personal speech fluency and other fluency vs emotion correlations



----- - Sub-optimal Paths

- Nominal Pronunciation