# Gender, Accent, Age Recognizer from Voice

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## 1. Introduction

There has always been a need to identify various characteristics of a person listening to their voice. This is true in phone conversations or recorded audio from businesses. This application helps predict the traits of the person associated with an audio, with respect to the probable gender, age and the region of origin based on his accent. Machine learning algorithms like the SVM and audio processing libraries will be employed to predict the outcomes.

Nowadays, there is an increasing focus on voice as an input for businesses. Virtual assistants which take voice commands now reside in mobile phones. Technology using voice can now be found in smart systems in cars, shopping complexes, security locks etc. Analyzing audio for such features can help give personalized results for the commands. This application is also very useful in data analytics to help make intelligent business decisions.

## 2. Resources Available

Following are the sources which may be helpful to complete the project:

### 2.1. Gender

- Kaggle- potential data set
- Classical Convert - audio analysis
- Python speech recognition library - audio analysis

### 2.2. Accent

- GMU speech accent archive- potential data set
- Research paper - accent classification using scattering coefficients
- CMU Sphinx - audio analysis

### 2.3. Age

- Research paper - Age Recognition from voice, Western Reserve University, Cleveland, Ohio
- Research paper - A review of seaker age classification, IJSR
- Research paper - Comparison of methods for age and gender classification
- Research paper - Pitch range based feature set for age and gender classification.
- Research paper - A comparative study of gender and age classification
- Praat - audio analysis