Data Processing & Analysis:

Session 1: Preprocessing & Feature Extraction with OpenWillis

The following steps are simple instructions on how to use OpenWillis to extract the features that are interesting to you.

- 1. Separate the audio from the video. Script: 1 separate audio video.ipynb
- 2. Transcribe the audio into a JSON and text file. Script: 2_transcribe_audio.ipynb
- 3. Extract features from audio and video using OpenWillis:
 - Vocal features from audio: 3 extract vocal features.ipynb
 - Emotional expressivity from video: <u>3_extract_emotional_expressivity.ipynb</u>
 - Facial expressivity from video: 3_extract_facial_expressivity.ipynb

While we do not provide an example for extraction of speech characteristics from transcripts, do try out the corresponding OpenWillis function after the workshop!

Session 2: Data analysis

The scripts here are in assignment design. Meaning that you will see the tasks in the script. Once you have finished the task or if you need assistance you can click on the Solution button to see the example solution.

Analyses can be run on the provided RAVDESS (see scripts below) or simulated data.

- 0. Check distributions and missings: <u>0_ravdess_distributions_missings.ipynb</u>
- 1. Correlation matrix: 1 ravdess correlation matrix.ipynb
- 2. Elastic net: 4_ravdess_elastic_net.ipynb
- 3. Classification: <u>5_ravdess_clasification.ipynb</u>