SCIENCE · PASSION · TECHNOLOGY

TU Graz

Open Thesis / Project
Presentation Coach for Android

Motivation

Great public speakers are made, not born. Practicing a presentation in front of a few colleagues (or a mirror) is common practice, and results in a set of subjective judgements what to improve. But can we estimate the quality of own delivery in a fair, unbiased, and repeatable way? Can we get subtle hints during a presentation (*e.g.*, to speak louder or to slow down)? The goal of this thesis is to design and implement a smartphone-based presentation coach that constantly listens to the talk and estimates its effectiveness. Your app should be able to compute how fast and loud the speaker speaks, estimate the complexity of his wording, count the number of filler words, etc.. Previous work on the subject has resulted in a iOS version of the app, which we would like to port to Android. If time permits we may extend the app with new features. Your ideas are very welcome!

Interested? Please contact us for more details!

Target Group

Students in ICE/Telematics and Comp. Science.

Thesis Type

Master Thesis (Duration: 6 months).

Image source: https://goo.gl/nMK2Ut

Goals and Tasks

- Learn talk evaluation metrics that can be measured in real time;
- Design and implement a presentation coach on an Android smartphone;
- Evaluate the performance of the presentation coach on a set of test talks;
- If time permits, extend the coach with new features, *e.g.*, ah-counting, multi-language support (bring your own ideas);
- Present a demo and summarize the results in a written report.

Requirements:

- Creativity and interest in programming a mobile phone, speech processing, machine learning;
- Good programming skills in Java or C++;
- Being familiar with speech processing algorithms is an advantage.

Used Tools & Equipment

- A smartphone and a laptop
- You need to own an Android phone which you can use for development and testing (no root access needed, no jailbreaking)

Contact Person

- Dr. Olga Saukh (saukh@tugraz.at)

Institute for Technical Informatics
Networked Embedded Systems Group

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