

# Project 5 AI

25.04.2022

## Project and scope

The goal of the project is to create a device which with the help of an AI can listen to conversation in a room and detect when a person has spoken in French. This device is designed to promote total immersion in English. The device could emit a sound or display different colors based on the language levels. Display something instead of a sound can be more advantageous because we can show different levels of English and also if a student is hearing impaired that can be better for him if the device shows a color instead of emitting a sound.

## Goals

1. How to collect voice samples with sufficient quality and quantity for the learning process.
2. Privacy and confidentiality of the data, how can we be sure that the conversations are not recorded and used for something else than detecting languages.

## Data collect

To collect data we have thought about two different ways. The first way is to collect many records of all the students in ALGOSUP just by putting a microphone in the room. The advantage of this way of collecting is that the data are more consistent with the usefulness of the device. On the other hand there are many disadvantages like the reliability of the data because we need to listen to all the recordings to be sure that students are speaking French when we need and English when we need. To solve this problem we can also record students in English classe to be sure that they speak in English and record them during the meal to make sure they speak in French. . The second way is to use data from the internet with a bank of data. The advantage is the number of data that we can have very quickly and there are no real disadvantages.

## Privacy and confidentiality

We think that it is not necessary to record and keep the records in a cloud to detect a language. Our device needs just to record a conversation and keep the need that it needs to detect which languages are and after it delete the record. With this way we don't need a database to store the data. To prevent the possibility of accessing the data, the device will not be connected to the internet. It will also make the device difficult to hack because to hack it we will need to have a physics contact with the device.