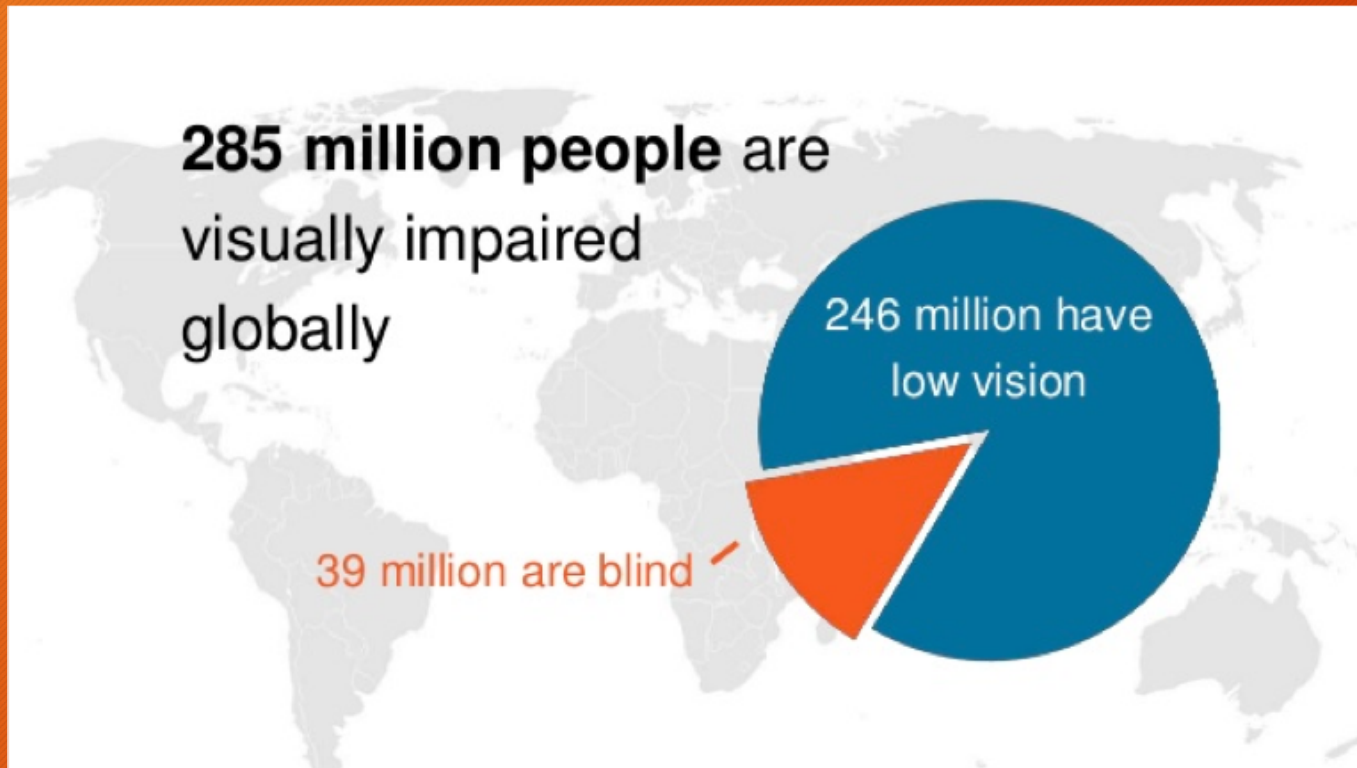# Eyes n Ears!

Team Armada

Siddhant Somani
Shubham Singhal
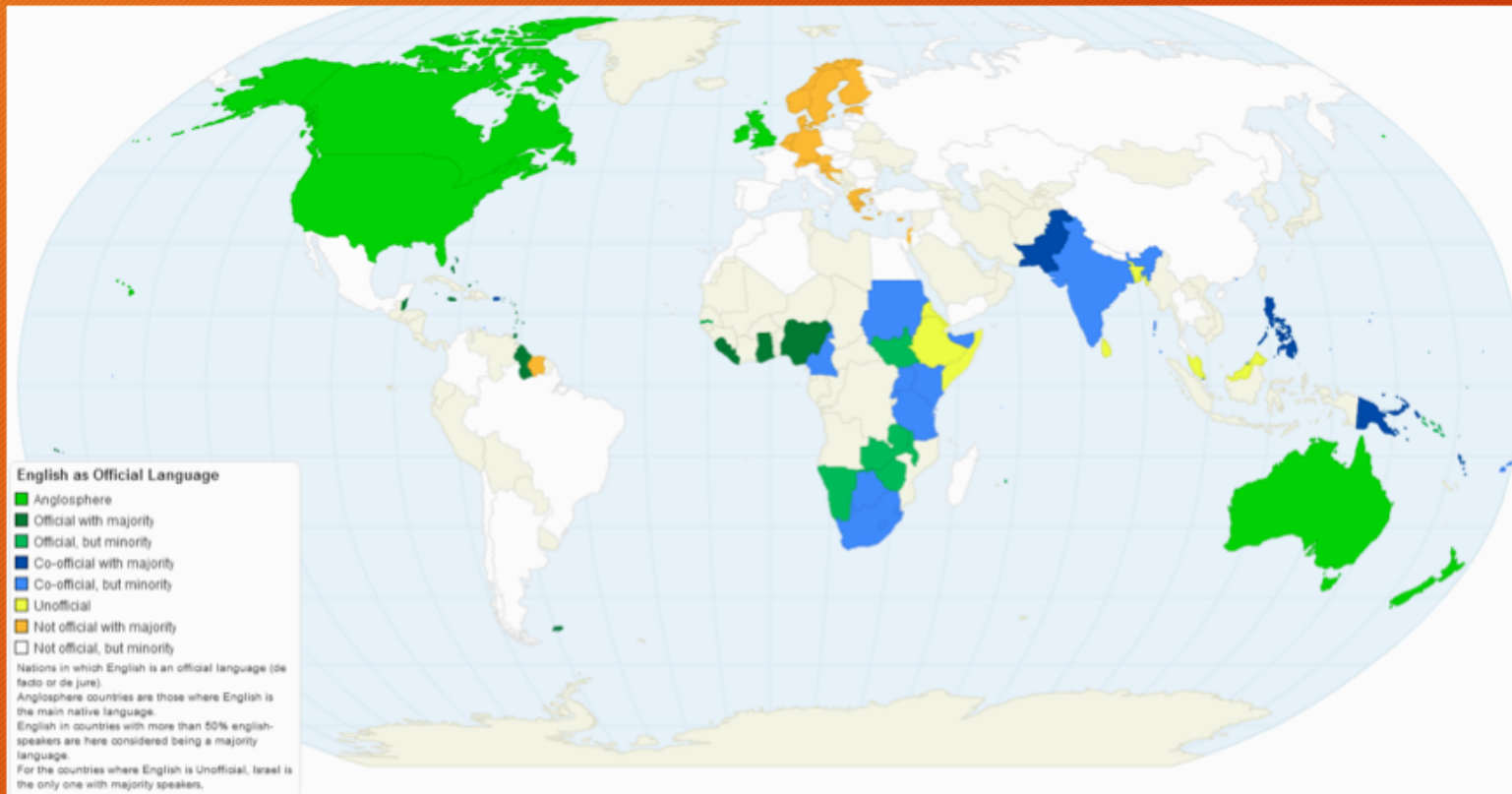Ishan Jain
Amit Bhat

Inspiration

- Today's competitive world is driven by resources available online which is mostly in video format.

- Most of these contents are published in a single language based on the content creator's preference.

- Language barriers constrain learning especially students studying in rural areas in local vernacular.

- In this era of MOOCs, students, professionals would like to learn from videos in their own language without depending on the language of the video

Visually impaired population

285 million people are visually impaired globally

246 million have low vision

39 million are blind

- How can visually impaired individuals take advantage of resources like MOOC, youtube, etc. which are mostly in video format?
- How can visually impaired individuals enjoy video contents online?

Language Barrier

English as Official Language

- Anglosphere
- Official with majority
- Official, but minority
- Co-official with majority
- Co-official, but minority
- Unofficial
- Not official with majority
- Not official, but minority

Nations in which English is an official language (de facto or de jure).

Anglosphere countries are those where English is the main native language.

English in countries with more than 50% english-speakers are here considered being a majority language.

For the countries where English is Unofficial, Israel is the only one with majority speakers.

- Around 20% speak English(most of which aren't native speakers)!
- What about the **rest 80% !!**

How do we solve it?

1. **Translates** a video **from any language** to **to any language.**

2. Service **available** on all types of devices

3. **Automatically describe video contents** when scene changes.

4. User can request for **automatic scene description** whenever required.

How it works

Challenges

- Voice activity detection for synchronicity + optimization
- No API which provides direct speech to speech translation
- Optimize time complexity!
- No API for sentence formation

Future

- Improve sentence formation
- Improve synchronization
- Get better details from the scene
- Remove language barrier in video calls/conferences (real time translation)
- Enable visually impaired individuals to be part of video calls/conferences (real time video summarization)

QUESTIONS ?

GLAD YOU ASKED!