OPEN SOURCE AI FOR LOCALIZATION

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The Idea

Using Open-Source AI Tools, we can elevate content localization by improving translation across various languages. This includes enhanced subtitling and potential implementation of voice-to-voice translations, enhancing the overall experience.

PROBLEM

DOC LANGUAGE GAP

A host of resources are available online, but the language barrier is a difficult issue to tackle, especially for documents and journals

DATA SAFETY

Using Proprietary Translation/Localization Software and libraries may cause some data safety issues.

VIDEO LANGUAGE, TRANSLATION GAP

A host of solutions would not accessible only because of comprehension issues, person's accent and/or unable to understand the source language

USABILITY

Users want something that's easy to adopt and simple to use,

FINANCIALS

As an individual user, using proprietary solutions may not be the right fit economically for a host of students and other users.

USER STORIES

Problems

- Lack of Resources
- Resources are present in a foreign language
- Conversation with domain experts is hard due to language barrier

Research Student

Requires

- Easier conversation skills, and conversion requirements
- Capability to convert large number of resources with min effort

Needs

- Resources need to be converted, easily and with good accuracy
- Faster ways to converse, and help to convey the idea to the peers

User Story

The person is a researcher looking for advancements in Niche Topics. There are a host of Video and Text resources, but in another language. The problem over here is language barrier. Although the others want to help him, the lack of language comprehension is an issue

Solution

- AI Models for the doc conversation and conversation enhancements.

Problems

- Lack of Conversion Capabilities
- Resources need to be accurate
- Conversion of Video and Audio resources

Docs Manager

Requires

- Easier conversion of Docs and other resources
- Capability to have a host of resources conversions in a limited time

Needs

- Resources need to be converted, easily and with good accuracy
- Requires subtitling of Video and Audio Content
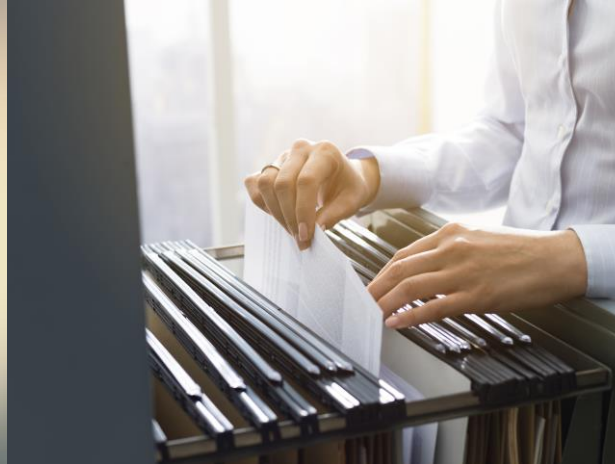
User Story

The person is a documentation manager for an MNC. Although the resources are present in one language, the manager is facing a short staffing and requires to have the resources converted to various other languages as per client requirements.

Solution

- AI Models for the doc and video conversation with enough enhancements and localizations, and help with multilingualism

Problems

- Lack of Resources to translate and transcribe the videos
- The time and logistics issues

Content Creator

Requires

- Cost effective solutions
- The resources conversions be highly accurate
- Enhancements to cover language nuances

Needs

- Subtitling Capabilities to ensure the majority languages are covered
- Audio translation to help the content be delivered in the main audience languages

User Story

The person is a content creator who focuses on the domain of Comedic and Dramatic Content. She has a widespread audience but is looking to help her content reach the audience in their mother tongue to help it become more enjoyable.

Solution

- AI based conversation with enough enhancements and localizations, while focusing on local nuances for audio and subtitle transcriptions

Where are we now?

Text to Text Translation Engines

RESULTS

Results are highly reliable, and stable

USABILITY

We can go ahead with the solutions at hands, due to the widespread capabilities

IMPROVEMENTS

We can bring in a few changes w.r.t Tone detection and enhancements

Where does the requirements lay?

WHY IS IT NEEDED?

Lack of an all-in-one solution

HOW DOES IT WORK?

- Difficulty with video content - be it with subtitles or with speech to speech
- Ability to translate text language you know
- Regular text translations, for languages which didn't have a coverage so far

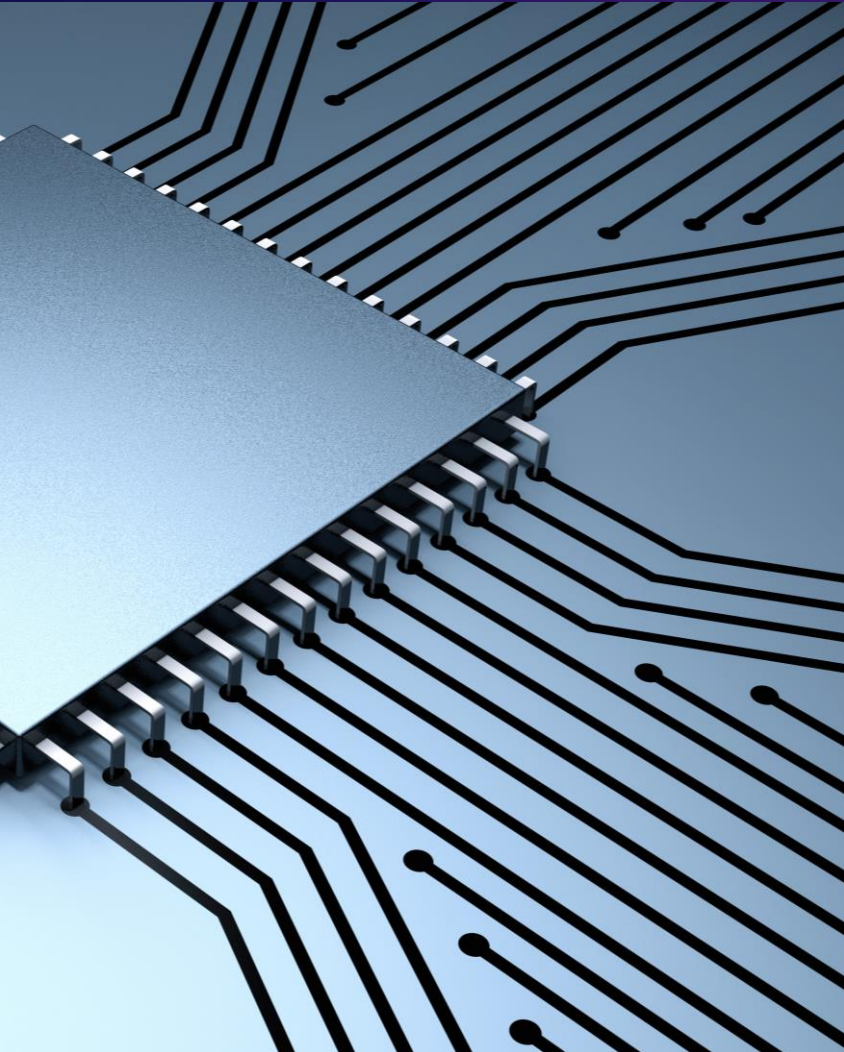# What can be improved now?

POINT OF FOCUS

The focus is on Audio and Video Translations

WHAT CAN BE DONE?

Enhancements in Accessibility to increase language reached

Solutions which can helps with automatic translation of videos

SOLUTIONS

Solution

BRIDGE THE GAP

A host of accessibility issues can be resolved when we have a bridge, to have the solutions.

OPEN SOURCE AI + LOCAL EXECUTION

As with every Open Source tools, the community innovation and customizations options would lead to continued improvements and transparency
Having the capabilities to run the conversions locally helps with privacy and customizations as per required

FORMAT POSSIBILITIES

Text to Text Conversions can help a lot in Documentation Localization. Video Subtitles can help especially when we are only capable of producing the content in one language. Having an audio translation feature is the icing on the cake

EASY UI

Having a simple and easy to use UI Interface can help the users
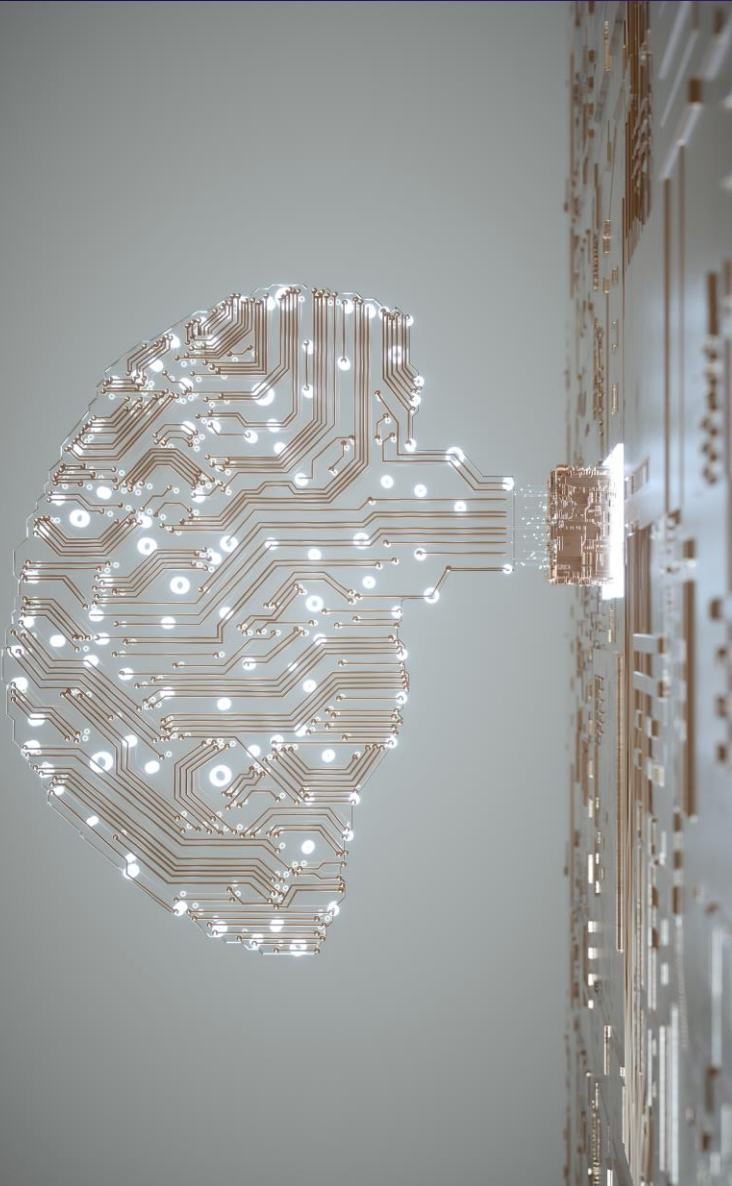
Which one to watch for?

WHAT IS IT?

It is a Multimodal Family, with capabilities to do everything

HOW DOES IT WORK?

SeamlessM4T base models support the tasks of:

• Speech-to-speech translation (S2ST)

• Speech-to-text translation (S2TT)

• Text-to-speech translation (T2ST)

• Text-to-text translation (T2TT)

• Automatic speech recognition (ASR)

Common Use Cases

WHY IS IT NEEDED?

Lack of an all-in-one solution

WHERE DOES IT COME IN?

- You might have encountered a super informative video about a topic you have been researching about, and this can be the solution.
- The precarious conversation when you are trying to convey an information, but the language barrier hits hard.
- Entertainment purposes, say you are watching a youtube video that looks really funny, but the content is in a language you have no idea about

Who all Can Benefit?

THE UPSIDE

Universalization of Resources

FOR WHOM?

- Large orgs
- Creators
- Individuals
- Communication
- Students
- Resources

HOW AND WHERE?

Any nonprofit use cases that requires translation and transcription.

SUMMARY

Using a host of AI tools, advanced capabilities can be achieved to make resources more localized to the public

- The video components can be made more localized to non-native speakers with the usage of Subtitles,

- The audio-only files can be transcribed and translated to the language of choice

- The same goes for text files, which can be translated into the reader's chosen language

Thank you

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