PROBLEM STATEMENT

Team ID: PNT2022TMID38587

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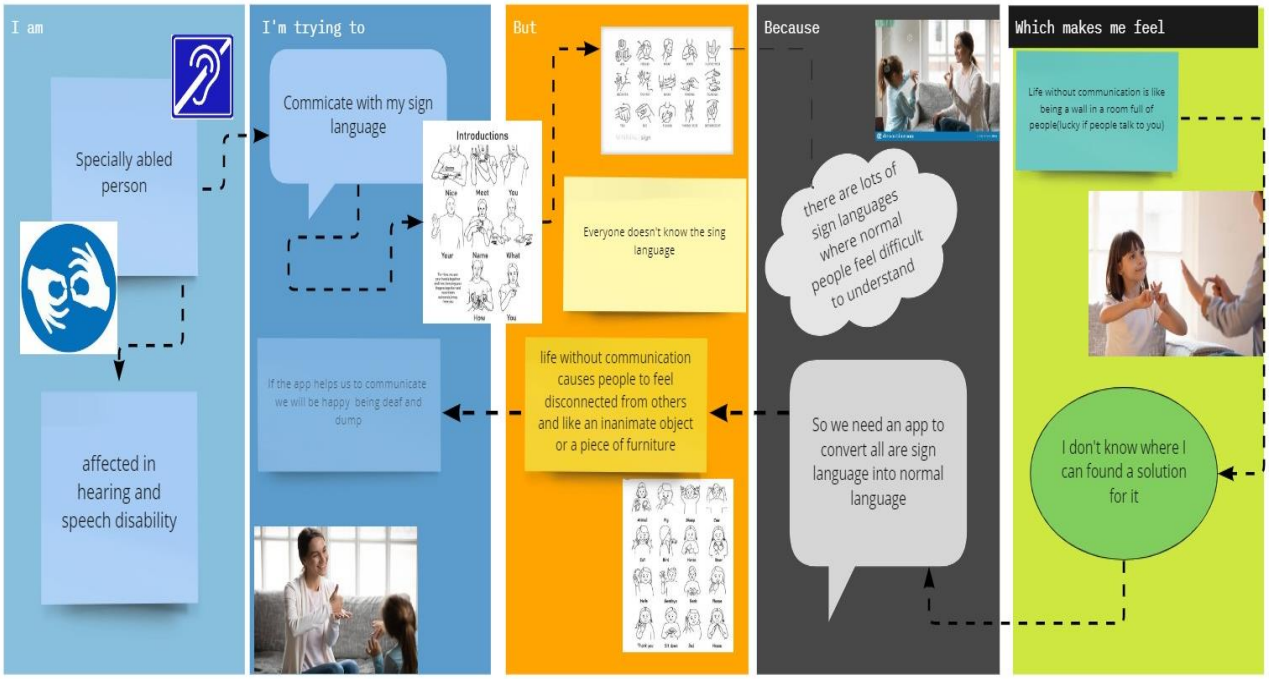
Real-Time Communication System Powered by AI For Specially Abled

In our society, we have people with disabilities. The technology is developing day by day but no significant developments are undertaken for the betterment of these people. Communications between deaf-mute and a normal person has always been a challenging task. It is very difficult for mute people to convey their message to normal people. Since normal people are not trained on hand sign language. In emergency times conveying their message is very difficult. Voice Conversion System with Hand Gesture Recognition and translation will be very useful to have a proper conversation between a normal person and an impaired person in any language.

The project aims to develop a system that converts the sign language into a human hearing voice in the desired language to convey a message to normal people, as well as convert speech into understandable sign language for the deaf and dumb. We are making use of a convolution neural network to create a model that is trained on different hand gestures. An app is built which uses this model. This app enables deaf and dumb people to convey their information using signs which get converted to human-understandable language and speech is given as output.

It can remove accessibility barriers through different solutions using AI:

- Image recognition for people with a visual impairment.
- Facial recognition for people with a visual impairment.
- Lip-reading recognition for people with a hearing impairment
- Text summarization for people with a mental impairment.
- Real-time captioning or translations for people with a hearing impairment or even people who don't speak the language.


I am
Specially abled person
affected in hearing and speech disability
I'm trying to
Commicate with my sign language
Introductions
If the app helps us to communicate we will be happy being deaf and dump
But
Everyone doesn't know the sing language
life without communication causes people to feel disconnected from others and like an inanimate object or a piece of furniture
Because
there are lots of sign languages where normal people feel difficult to understand
So we need an app to convert all are sign language into normal language
Which makes me feel
Life without communication is like being a wall in a room full of people(lucky if people talk to you)
I don't know where I can found a solution for it