Project Design Phase-I-Solution Fit Canvas

Project Title : Real-Time Communication System Powered by Al for Specially Abled   **Team ID :** PNT2022TMID08035

Define CS, fit into CC	**1. CUSTOMER SEGMENT(S)** CS	**6. CUSTOMER CONSTRAINTS** CC	**5. AVAILABLE SOLUTIONS** AS	**Explore AS, differentiate**
	• Normal People, Who needs to communicate with specially abled. • Deaf People • Dumb People	Artificial Intelligence technology solutions, discover how accessibility for people can be enhanced.	• Voice Conversion system with hand gestures recognition and translation will be very useful to have a proper conversation between a normal people and an impaired person in any language. • An app is built which enables deaf and dumb people to convey their information using signs.	

Focus on J&P, tap into BE, understand RC	**2. JOBS-TO-BE-DONE / PROBLEMS** J&P	**9. PROBLEM ROOT CAUSE** RC	**7. BEHAVIOUR** BE	**Focus on J&P, tap into BE, understand RC**
	• Input is given as Hand gestures image, which undergoes image preprocessing and voice recognition. • In Neural network, the hand gestures are trained by Convolution Neural Network.	• Communication between deaf-mute and a normal people has always been a challenging task. • It is very difficult for mute people to convey their message to normal people. • Normal people are not trained on hand sign language, and in emergency times it is very difficult.	What do to address the problem • Artificial Intelligence model that converts sign language into a speech that can be understood by normal people. • An application built for efficient usage.	

Identify strong TR & EM

3. TRIGGERS — TR

- The benefit of the system that converts the sign language into a human hearing voice in the desired language to convey a message to normal people.
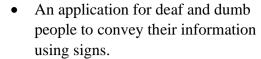- As well as convert speech into understandable sign language for the deaf and dumb.

4. EMOTIONS: BEFORE / AFTER — EM

BEFORE: Normal people are not aware of hand signs and Communication is difficult between the normal people and specially abled.

AFTER: Communication is good and efficient between the normal people and specially abled and Normal people can learn sign language.

10. YOUR SOLUTION — SL

- An application for deaf and dumb people to convey their information using signs.
- By using voice conversion system with hand gesture recognition and translation will be very useful to have a proper conversation.

8.CHANNELS of BEHAVIOR — CH

8.1 ONLINE

- A simple and beautiful user interface is used and supports different languages.
- Accurate prediction and used speech to text & text to speech.

8.2 OFFLINE

- Communication is made between the normal people and specially abled.
- Normal people used to learn sign language.