







Project Design Phase-I-Solution Fit Canvas

Project Title : Real-Time Communication System Powered by AI for Specially Abled

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|--|---|---|---|--|
| Define CS, fit into CC | 1. CUSTOMER SEGMENT(S)  <ul style="list-style-type: none"> Normal People, Who needs to communicate with specially abled. Deaf People Dumb People | 6. CUSTOMER CONSTRAINTS  <p>Artificial Intelligence technology solutions, discover how accessibility for people can be enhanced.</p> | 5. AVAILABLE SOLUTIONS  <ul style="list-style-type: none"> 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. | Explore AS, differentiate |
| Focus on J&P, tap into BE, understand RC | 2. JOBS-TO-BE-DONE / PROBLEMS  <p>To predict the delay of the flight</p> <ul style="list-style-type: none"> 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. | 9. PROBLEM ROOT CAUSE  <ul style="list-style-type: none"> 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. | 7. BEHAVIOUR  <p>What do to address the problem</p> <ul style="list-style-type: none"> Artificial Intelligence model that converts sign language into a speech that can be understood by normal people. An application built for efficient usage. | Focus on J&P, tap into BE, understand RC |

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.