

1.CUSTOMER SEGMENT:

CS

People who are either deaf or both deaf and could not speak are those who we focus on. People who cannot speak an oral language or have some degree of speaking ability, but choose not to speak because of the negative or unwanted attention atypical voices sometimes attract are our customers.

6. CUSTOMER CONSTRAINTS

CC

Living with the disability of not able to hear or speak causes many complex situations in their life. Disability to hear or speak is a severe anxiety disorder where a person is unable to speak in certain social situations, such as with classmates at school or to relatives they do not see very often. They are unable to participate in conversations due to stigma, making them feel lonely, unexpressed, and socially marginalized. This results in chronic stress and depression.

5. AVAILABLE SOLUTIONS

AS

Deaf people have two main ways of communicating with others –
 1 . Lip reading
 2 . Sign language

But while lip reading there occur a wide range of problems like Slow talkers, not having adequate amount of light, speaker wearing a mask, etc

sign language is an efficient way and has an lot of scope to being enhanced using artificial intelligence supported softwre

2. JOBS-TO-BE-DONE / PROBLEMS

J&P

Providing an aid for the deaf and mute people so that their problem of not able to speak or hear will be a less burden to them and people around them and make their interations much easier and effective so that they are not left alone and helps them increase their productivity .

9. PROBLEM ROOT CAUSE

RC

Hearing-impaired individuals are often isolated on the grounds of old age, lack of hearing, hearing aid use, and sign language. They are unable to participate in conversations due to stigma, making them feel lonely, unexpressed, and socially marginalized. This results in chronic stress and depression.

7. BEHAVIOUR

BE

Hearing-impaired showed significantly more proactive aggression, symptoms of psychopathy, attention deficit hyperactivity disorder, oppositional defiant disorder, and conduct disorder than their normally hearing peers.

3. TRIGGERS

R

Being surrounded by majority of normmal people atleast people who do not possess deaf-mute disabilities will be one of the main reason why deaf and mute people want to communicate effectively so that people who do not possess their disabilities can understand them and comunicste with them

4. EMOTIONS: BEFORE / AFTER

M

Before : loneliness, stressed, insecure

After : confident to communicate , interact and being productive

10. YOUR SOLUTION

L

We aim 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.

8.CHANNELS of BEHAVIOUR

H

Offline : feeling isolated, without friends, and unhappy in school, particularly when their socialization with other children with hearing loss is limited.

Online : online chats make them feel better to communicate with others since they do not have to speak or hear and just read but they tend to suffer during a voice call or video call