S

Define CS, fit into

RC

Focus on J&P, tap into BE, understand

EΜ

త

Identify strong TR

People who were dumb or with hearing impairments.

6. CUSTOMER CONSTRAINTS

What constraints prevent your customers from taking action or limit their choices of solutions? i.e. spending power, budget, no cash, network connection, available devices.

Accessibility challenges, poor user experience, demand for additional technical expertise, cost etc. These were the major constraints faced by the customers.

5. AVAILABLE SOLUTIONS

Which solutions are available to the customers when they face the problem or need to get the job done? What have they tried in the past? What pros & cons do these solutions have? i.e. pen and paper is an alternative to digital notetaking

The earliest method for deciphering sign language uses gloves and so it is not used by many people. Recent apps have the feature of converting limited signs using image processing and AI and some lacks two way communication. Our method involves development of an Android application which recognizes more sign gestures and converts them into speech and vice versa.

Which jobs-to-be-done (or problems) do you address for your customers? There could be more than one; explore different sides.

People who are dumb or deaf find it difficult to communicate with normal people. Deaf people cannot hear the words. Those who are mute cannot communicate or express emotions with words.

J&P

TR

EM

CS

9. PROBLEM ROOT CAUSE

What is the real reason that this problem exists?
What is the back story behind the need to do this job?
i.e. customers have to do it because of the change in regulations.

For the previously designed approach, colored hand gloves were employed to identify the positions of the hands. Additionally, the outdated technique uses slow-to-process conventional translators.

7. BEHAVIOUR

RC

SL

What does your customer do to address the problem and get the job done?
i.e. directly related: find the right solar panel installer, calculate usage and benefits; indirectly associated: customers spend free time on volunteering work (i.e. Greenpeace)

Our approach is in the form of android application which can convert speech into sign and vice versa.

What triggers customers to act? i.e. seeing their neighbour installing solar panels, reading about a more efficient solution in the news.

To address the challenges faced by deaf-mute persons in their daily life so they can interact with society and feel hopeful.

4. EMOTIONS: BEFORE / AFTER

How do customers feel when they face a problem or a job and afterwards? i.e. lost, insecure > confident, in control - use it in your communication strategy & design

BEFORE: It is very difficult to convey the message to normal people. AFTER: It helps Specially abled people to express their emotions with normal people.

10. YOUR SOLUTION

If you are working on an existing business, write down your current solution first, fill in the canvas, and check how much it fits reality.

If you are working on a new business proposition, then keep it blank until you fill in the canvas and come up with a solution that fits within customer limitations, solves a problem and matches customer behaviour.

Converting Sign language into human hearing speech, and vice versa using Convolution Neural Network in desired language(Two way Communication Method)

8. CHANNELS of BEHAVIOUR

8.1 ONLINE

What kind of actions do customers take online? Extract online channels from #7

Promote the application online with the help of influencers who will try it out and then blog about it.

8.2 OFFLINE

What kind of actions do customers take offline? Extract offline channels from #7 and use them for customer development.

We can provide campaign awareness about the need of our application.

Explore AS, differentiate Focus on J

BE

cus on J&P, tap into BE, understand R

Extract online & offline CH of BE

CH