

**Project Title: Real-Time Communication System for Specially Abled**  
**Project Design Phase-I - Solution Fit**  
**Team ID: PNT2022TMID38587**

Define CS, fit into CC

### 1. CUSTOMER SEGMENT(S)

Who is your customer?

- Our customers are specially abled people
- Who are affected in **hearing and speech disability**

C

### 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.

- The main purpose of this model comprises of automated real time communication system is designed and implemented with the ubiquitous and affordable concept in mind to suit the underprivileged specially abled people

### 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

- Even people with speech impediments can benefit from AI technology with the web site.
- This web site normalizes their speech to create an output of audio or text so that people with speech impediments can still communicate with others and be understood.

Explore AS, differentiate

Focus on J&P, tap into BE, understand RC

### 2. JOBS-TO-BE-DONE / PROBLEMS

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

- Deaf and Dumb people communicate through only by sign language.
- Everyone doesn't know the sign language.

J&P

### 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? customers have to do it because of the change in regulations.

- ✓ **Communications between deaf-mute and a normal person has always been a challenging task.**
- ✓ Since normal people are not trained on hand sign language. In emergency times conveying their message is very difficult.

RC

### 7. BEHAVIOUR

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)

- **Life without communication is like being a wall in a room full of people (lucky if people talk to you)**
- Communication causes people to feel disconnected from others and like an inanimate object or a piece of furniture

BE

Focus on J&P, tap into BE, understand RC

<p><b>3. TRIGGERS</b> <span>TR</span></p> <p>What triggers customers to act? i.e. seeing their neighbors installing solar panels, reading about a more efficient solution in the news.</p> <ul style="list-style-type: none"> <li>➤ 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.</li> </ul>	<p><b>10. YOUR SOLUTION</b> <span>SL</span></p> <p>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.</p> <p>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 behavior.</p> <ul style="list-style-type: none"> <li>➤ It can remove accessibility barriers through different solutions using AI:</li> <li>➤ Image recognition for people with a visual impairment.</li> <li>➤ Facial recognition for people with a visual impairment.</li> <li>➤ Lip-reading recognition for people with a hearing impairment</li> <li>➤ Text summarization for people with a mental impairment.</li> <li>➤ Real-time captioning or translations for people with a hearing impairment or even people who don't speak the language</li> </ul>	<p><b>8. CHANNELS of BEHAVIOUR</b> <span>CH</span></p> <p><b>8.1 ONLINE</b></p> <p>What kind of actions do customers take online? Extract online channels from #7</p> <p><b>8.2 OFFLINE</b></p> <p>What kind of actions do customers take offline? Extract offline channels from #7 and use them for customer development.</p> <ul style="list-style-type: none"> <li>➤ Online chat and chatbots have the fastest average response time</li> <li>➤ Create a positive user experience with a simple, appealing website and app layout</li> </ul>
<p><b>4. EMOTIONS: BEFORE / AFTER</b> <span>EM</span></p> <p>How do customers feel when they face a problem or a job and afterwards? i.e. lost, insecure &gt; confident, in control - use it in your communication strategy &amp; design.</p> <ul style="list-style-type: none"> <li>➤ Life without communication causes people to feel disconnected from others and like an unfinished art or inanimate object.</li> <li>➤ The technology is developing day by day but no significant developments are undertaken for the betterment of these people.</li> </ul>		<p><b>8.3 OFFLINE</b></p> <p>What kind of actions do customers take offline? Extract offline channels from #7 and use them for customer development.</p> <ul style="list-style-type: none"> <li>➤ Employees are able to instantly responds to customer queries.</li> </ul> <p>Create a positive customer experience with store layout and design</p>