Brainstorm & idea prioritization

Use this template in your own brainstorming sessions so your team can unleash their imagination and start shaping concepts even if you're not sitting in the same room.

- 10 minutes to prepare
- 1 hour to collaborate
- 2-8 people recommended

Share template feedback

Before you collaborate

A little bit of preparation goes a long way with this session. Here's what you need to do to get going.

10 minutes

Team gathering
Define who should participate in the session and send an invite. Share relevant information or pre-work ahead.

Set the goal
Think about the problem you'll be focusing on solving in the brainstorming session.

Learn how to use the facilitation tools
Use the Facilitation Superpowers to run a happy and productive session.

Open article →

1 Define your problem statement

What problem are you trying to solve? Frame your problem as a How Might We statement. This will be the focus of your brainstorm.

5 minutes

PROBLEM
Today generation, many specially abled peoples are faces many problems and they have many goals to achieve and not to communicate to others

Key rules of brainstorming
To run a smooth and productive session

- Stay in topic.
- Encourage wild ideas.
- Defer judgment.
- Listen to others.
- Go for volume.
- If possible, be visual.

2 Brainstorm

Write down any ideas that come to mind that address your problem statement.

10 minutes

TIP
You can select a sticky note and hit the pencil (switch to sketch) icon to start drawing!

Varshini H

- Communication should be universal without any barriers or limitations.
- Research institutions and medical facilities are using the ability to analyze massive data sets to empower the human genome.
- speak directly to the person rather than the person with them

Renukadevi M

- only refer to the person's disability if necessary or relevant
- develop new f d ds of treatments, another era and trigger new genome care, and it other manage electronic.

Yuvashre

- In emergency times, conveying their message is very difficult.
- Since normal people are not trained on hand sign language.
- AI technology can apply to any type of disability profile.

Sushmitha J

- Communication should be universal without any barriers or limitations.
- Developing an app with support like networks in nursery of ltop street people.
- Neural networks can solve somewhat complicated issues as a much easier level concerning only noisy texts of algorithms.

3 Group ideas

Take turns sharing your ideas while clustering similar or related notes as you go. In the last 10 minutes, give each cluster a sentence-like label. If a cluster is bigger than six sticky notes, try and see if you can break it up into smaller sub-groups.
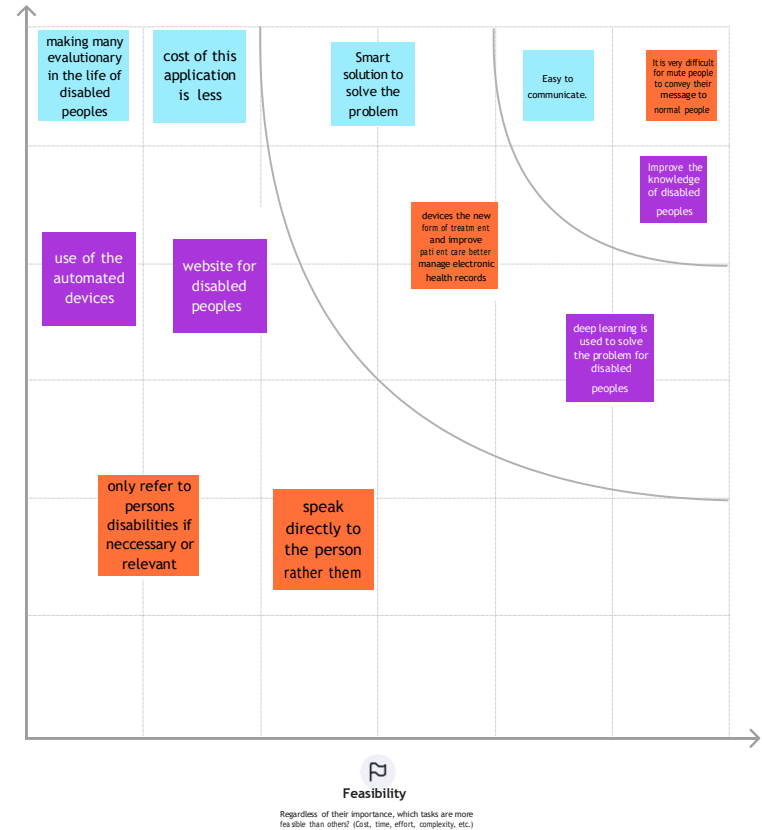
20 minutes

CATEGORY 1
- use of the automated device
- useful to disabled peoples
- website for disabled peoples
- improve the knowledge of disabled peoples

CATEGORY 2
- smart solution to solve the problem
- cost of this applicat on is less
- easy to communicate
- making many evolutionary changes in the life of disabled peoples

CATEGORY 3
- speak directly to the person rather than the person with them
- only refer to the person's disabili ty if necessary or relevant
- It is very difficult for mute people to convey their message to normal people.

4 Prioritize

Your team should all be on the same page about what's important moving forward. Place your ideas on this grid to determine which ideas are important and which are feasible.

20 minutes

Feasibility

Regardless of their importance, which tasks are more feasible than others? (Cost, time, effort, complexity, etc.)

Grid stickies:
- making many evalutionary in the life of disabled peoples
- cost of this application is less
- Smart solution to solve the problem
- Easy to communicate.
- It is very difficult for mute people to convey their message to normal people
- use of the automated devices
- website for disabled peoples
- devices the new form of insole and tool and improve pull ett are better manage electronic health records
- Improve the knowledge of disabled peoples
- only refer to persons disabilities if neccessary or relevant
- speak directly to the person rather them
- deep learning is used to solve the problem for disabled peoples

After you collaborate

You can export the mural as an image or pdf to share with members of your company who might find it helpful.

20 minutes

Quick add-ons

Share the mural
Share a view link to the mural with stakeholders to keep them in the loop about the outcomes of the session.

Export the mural
Export a copy of the mural as a PNG or PDF to attach to emails, include in slides, or save in your drive.

Keep moving forward

Strategy blueprint
Define the components of a new idea or strategy.
Open the template →

Customer experience journey map
Understand customer needs, motivations, and obstacles for an experience.
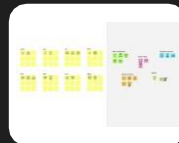Open the template →

Strengths, weaknesses, opportunities & threats
Identify strengths, weaknesses, opportunities, and threats (SWOT) to develop a plan.
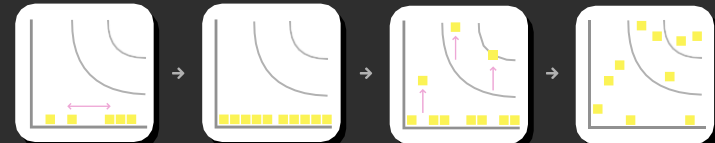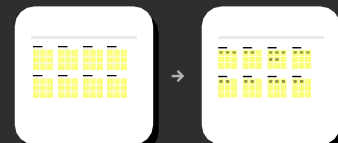Open the template →

Share template feedback

Need some inspiration?
See a finished version of this template to kickstart your work.
Open example →

REAL TIME COMMUNICATION SYSTEM POWERED BY AI FOR SPECIALLY ABLED

TITLE: Innovative study of an AI voice based smart device to assist deaf people

AUTHOR: Dhaya Sindhu Battina

YEAR: 2021

ABSTRACT:

Assistive technology consists of a wide range of hardware and software tools that enable a person to receive information in the format that suits their needs best. These Various technology may be available to the deaf.many items, including cochlear implants, loop systems,accessibility, FM technology, and assistive listening devices,visual warning systems, videophones, and much more .
Recognizing the worth and boundaries of different assistive devices can be advantageous for both. Artificial intelligence (AI) enables computers to learn from existing experiences, adapt to new information, and perform tasks that are similar to those carried out by humans . The vast majority of artificial intelligence applications that users know of today – ranging from chess playing robots to self-driving vehicles – are primarily reliant on deep learning and computational linguistics.Computers may be taught to do particular jobs by processing huge quantities of data and detecting trends in the data. This is accomplished via the use of various technologies
Machine learning technologies have the potential to substantially reduce the communication obstacles that deaf or hearing-impaired persons have when interacting with other groups, thus promoting social inclusion for these individuals. Recent advancements in both sensing technology and artificial intelligence algorithms have opened the way for the creation of a broad array of applications aimed at meeting the requirements of the deaf and hearing-impaired populations

TITLE: Communication system for deaf and dumb people

AUTHOR: Shraddha R. Ghorpade, Prof. Surendra K. Waghmare2

YEAR: 2019

ABSTRACT:

People with disabilities are having a difficult time keeping up with the rapidly evolving technology, which is one of the major issues that our society is dealing with. For those with disabilities, having access to communication tools has become crucial. typically deaf and stupid people use sign language to communicate, but they struggle to do so with non-sign language users language.

Information is the main topic of communication between normal and deaf individuals using sign language, which is expressive and natural. So that we can converse with them and comprehend what they're saying, we need a translation. A language translation technology converts common sign language into voice, enabling regular people to communicate with one another. When it comes to communicating with other people,sign language (SL) is the primary method of communication for hearing-impaired individuals and other groups. It is conveyed via both manual (body and hand movements) and non-manual (face expressions) characteristics. All of these characteristics are combined to create utterances that communicate the meaning of words or statements . Understanding and being able to record and comprehend the relationship between utterances and words is critical for the Deaf community's ability to lead us toward a time when automated translating between utterances and words is possible .In recent years, researchers have recognized the need for the development of sign language technology to assist hearing-impaired individuals in communicating and socially integrating into their communities. Even though the advancement of such innovations can be extremely difficult owing to the inclusion of multiple sign languages and a scarcity of large annotated datasets, recent advances in artificial intelligence and machine learning have made significant strides towards automating and improving such systems. Keywords: Image Processing, Human Computer Interface (HCI).

TITLE: Educational Status of Differently Abled Persons and Developed Policies in India
AUTHOR: Chiranjit Majumder
YEAR: 2019 April

ABSTRACT:

One of the socially created phenomenon is basically Disability. The fact is that many children and adults suffered from disabilities excluded from mainstream education benefits. Disabled persons are segregated from education system because of social negligence and absence of support system in the home and inadequacy of sufficient facilities in schools particularly.
However, education is the most important medium for social, economic and political transformation. Socialization of children with disabilities (CWD) through education receives an unremarkably important roles in societies such as India where social exclusion of Physically Challenged Persons (PCPs) is significant. Indisputably, the literacy level of Physically Challenged Persons (PCPs) is very low in India. Very poor educational outcomes for children with disabilities remain in developing countries specially. Most of disabled persons do not get the full benefits of education. However, some policies in India has started to display some concern for Physically Challenged students. Education is utmost significant to lift up the socio-economic status of PCPs. But education of disabled persons has not received adequate intentness and resources that it requires. Physically Challenged Persons (PCPs), few who are enrolled in schools are not given equal opportunity for middle secondary and higher education levels. Many Disabled persons are educated but they do not get any work for earning in our society. However, in India the existing situation began to change. Indian policies has started to understand as for all people that education is essential for children and adults with IJTSRD21762
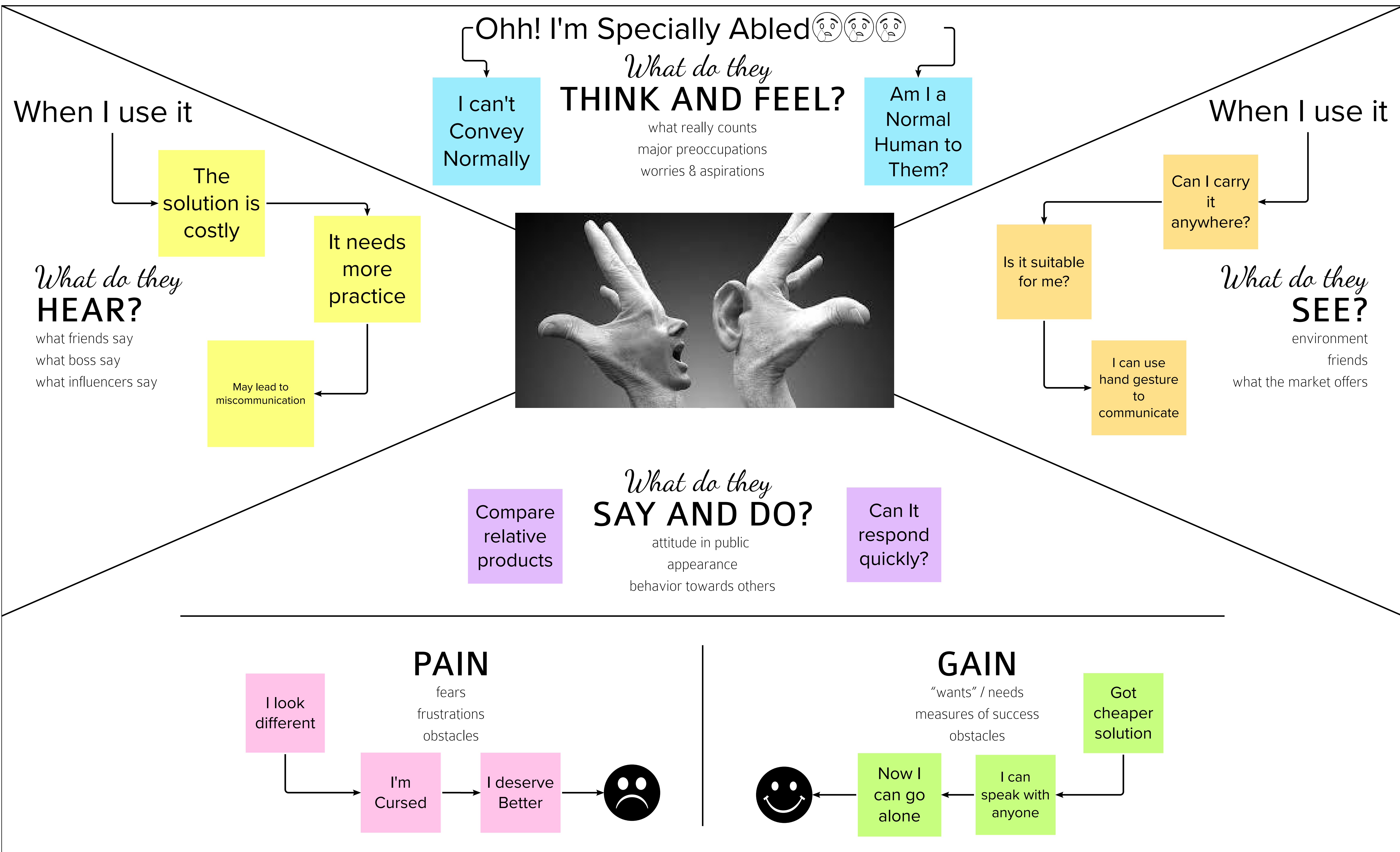
disabilities in itself and helpful for participating in employment and other sites of social activity. The Ministry of Human Resource Development (MHRD) has initiated various programmes to give educational opportunities to PCPs in an environment that is inclusive (Ghoshal S.K., 2018). Government of India also understands the needs of appropriate vocational training skills to make them self faithful and productive members of society. But, the scheme coverage has stayed limited. Non Governmental

Organizations (NGOs) has a biggest role
to improve the life of disabled persons in our society. Educational Status of Disabled Persons in India India is the world's largest democracy. India has a countless challenges for ensuring access to education for over all 200 million (20 Cr) children aged 6 to 13 years. As per 2011 National Census, 1.05% of school going children have a problem like disability (2.13 million = 21 Lakhs 30 Thousand); of these 28% (5 Lakhs 88 Thousand) are not accessing school. Particularly 44% of disabled children are not accessing school have complex and multiple forms of activity limitations and functioning difficulties (Bakhshi et al, 2017). Education is an fruitful tool for socio-economic empowerment which can develop the career of specially disabled ones. disabilities in itself and helpful for participating in employment and other sites of social activity. The Ministry of Human Resource Development (MHRD) has initiated various programmes to give educational opportunities to PCPs in an environment that is inclusive (Ghoshal S.K., 2018). Government of India also understands the needs of appropriate vocational training skills to make them self faithful and productive members of society. But, the scheme coverage has stayed limited. Non Governmental Organizations (NGOs) has a biggest role to improve the life of disabled persons in our society.
Educational Status of Disabled Persons in India

Empathy Map Canvas

What if I'm a Specially Abled (Deaf and Dumb) and I buy the smart Solution?

Ohh! I'm Specially Abled😨😨😨

What do they THINK AND FEEL?

what really counts
major preoccupations
worries & aspirations

I can't Convey Normally

Am I a Normal Human to Them?

When I use it

The solution is costly

It needs more practice

May lead to miscommunication

What do they HEAR?

what friends say
what boss say
what influencers say

When I use it

Can I carry it anywhere?

Is it suitable for me?

I can use hand gesture to communicate

What do they SEE?

environment
friends
what the market offers

What do they SAY AND DO?

attitude in public
appearance
behavior towards others

Compare relative products

Can It respond quickly?

PAIN

fears
frustrations
obstacles

I look different

I'm Cursed

I deserve Better

GAIN

"wants" / needs
measures of success
obstacles

Got cheaper solution

Now I can go alone

I can speak with anyone

Solution fit

1. CUSTOMER SEGMENT(S)   **CS**

Specially abled people are the customers who are not able to easily communicate with others.

6. CUSTOMER CONSTRAINTS   **CC**

While communicating, they can only able to communicate with the people those who know sign language.

5. AVAILABLE SOLUTIONS   **AS**

The available solutions are not so accuracy in image processing and the output was not so efficient.

Explore AS, differentiate

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

2. JOBS-TO-BE-DONE / PROBLEMS   **J&P**

Only sign language known people can communicate so we introduced a new system to communicate all specially abled people.

9. PROBLEM ROOT CAUSE   **RC**

Due to the inability to communicate with others by the specially abled people's

7. BEHAVIOUR   **BE**

Finding the right signs and converting into correct communication between the people's

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

Identify strong TR & EM

3. TRIGGERS   **TR**

Some of the triggers are introducing in all hospitals, medical trusts and also in advertisements.

4. EMOTIONS: BEFORE / AFTER   **EM**

specially abled people hesitate to communicate with others but know using this system they can easily communicate with others.

10. YOUR SOLUTION   **SL**

Created an application using AI , that will able to convert the sign language by image processing of the specially abled people.

8. CHANNELS of BEHAVIOUR   **CH**

8.1 ONLINE
We can update our application and use it in a very efficient way.

8.2 OFFLINE
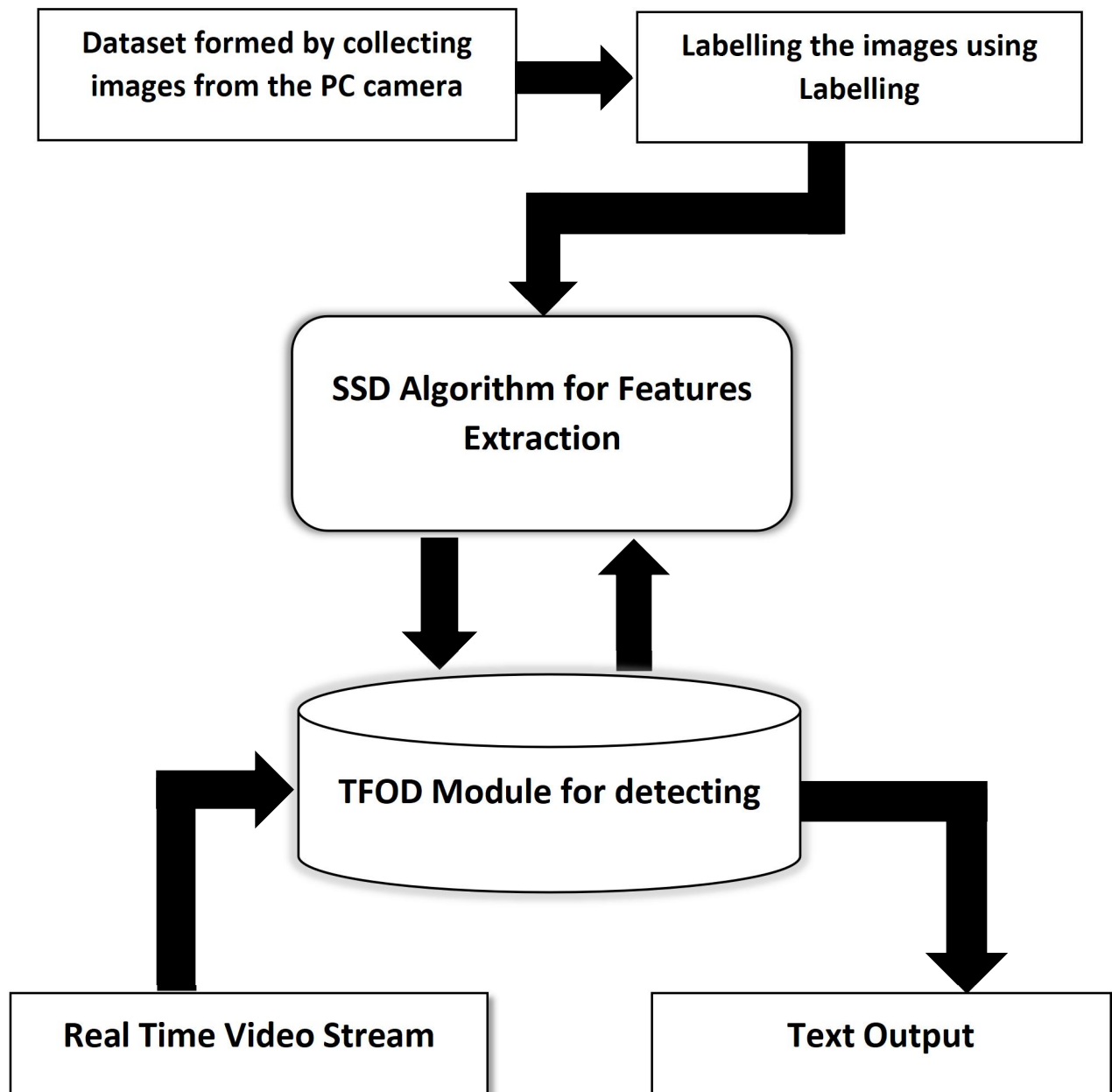In offline mode we use it but not so efficient we can use it with a recently updated application.

Extract online & offline CH of BE

PROJECT DESIGN PHASE-II

FUNCTIONAL REQUIREMENT

REQUIREMENTS	FUNCTIONAL REQUIREMENTS
Objective	Most people communicate efficiently without any issues, but many cannot due to disability.
focus	The hand gesture recognition system consists of three major parts: palm detection, hand tracking, and trajectory recognition.
Documentation	In Ideation phase
End case	This aimed at evaluating and comparing the methods used in the sign recognition systems, classification methods used and identifies the most promising approach for this project.
Essentially	Web camera is essential for capturing image.
Origin type	Artificial intelligence that was being developed can identify errors on hand gesture matches and will stop as a default. It will generate corresponding gestures that allow every user to read and be able to understand what the gesture means.
Testing	Feature extraction depends on the application. On D-talk, finger status, skin color, alignments of the finger, and the palm position are taken into consideration. After features extracted, they sent to training and testing classification algorithms to reach the output.

Project Design Phase-I
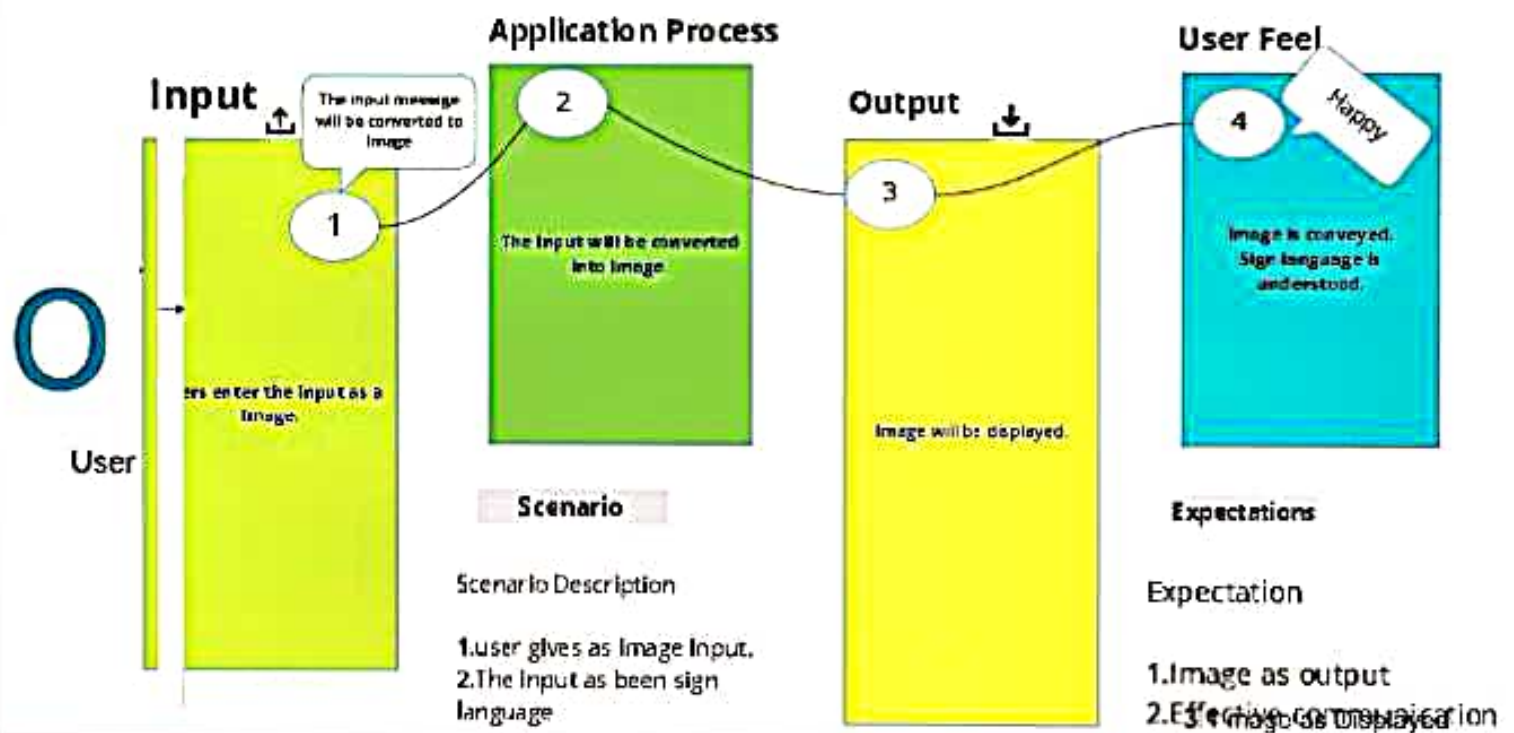
Solution Architecture

Date	28 September, 2022
Team ID	PNT2022TMID25478
Project Name	Real-Time Communication System Powered by AI for Specially Abled
Maximum Marks	2 Marks

SYSTEM ARCHITECTURE

Customer Journey Map

Application Process

Input

The input message will be converted to image

2

1

The input will be converted into image

ers enter the input as a image

User

Scenario

Scenario Description

1.user gives as image input.
2.The input as been sign language

Output

3

Image will be displayed.

User Feel

4

Happy

Image is conveyed. Sign language is understood.

Expectations

Expectation

1.Image as output
2.Effective communication
Image as displayed

Milestone Activity Plan.

Use the below template to create product backlog and sprint schedule

Milestone	Function (Epic)	Milestone Story Number	Story / Task
Milestone -1	Data Collection	M1	we're collecting dataset for building our project and creating two folders, one for training and another one for testing.
Milestone-2	Image preprocessing	M2	Importing image data generator libraries a nd applying image data generator functio nality to train the test set.
Milestone-3	Model Building	M3	Importing the model building libraries, Initializing the model, Adding Convolution layers, Adding the Pooling layers, Adding t he Flatten layers, Adding Dense layers, Co mpiling the model Fit and Save the model.
Milestone-4	Testing the model	M4	Import the packages first. Then we save t he model and Load the test image, prep rocess it and predict it.
Milestone-5	Application layer	M5	Build the flask application and the HTML pages.
Milestone-6	Train CNN model	M6	Register for IBM Cloud and train Image Classification Model.

Milestone-6	Final result	M7	To ensure all the activities and resulting t he final output.