Project Title: Natural Disasters Intensity Analysis and Classification using Artificial Intelligence

Project Design Phase-I - Solution Fit Template

Team ID:PNT2022TMID38246

Define CS, fit into CC

1. CUSTOMER SEGMENT(S) — CS

1.Government
2.Scientists like Seismologists and Meteorologists

6. CUSTOMER CONSTRAINTS — CC

1.Spending time
2.Lack of data
3.Uncertain about the result

5. AVAILABLE SOLUTIONS — AS

1.Scientists have to analyse every image available to classify the natural disaster which is a time consuming process.

2.Government has to solely rely on the scientists to make their next move which at sometimes lead to losses of people's lives.

Explore AS, differentiate

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

2. JOBS-TO-BE-DONE / PROBLEMS — J&P

1.Able to classify the natural disaster by the given image.

2.To take necessary steps to save the lives of people and to prevent the loss

9. PROBLEM ROOT CAUSE — RC

Natural disaster must be identified and classified with great accuracy and within a short span of time so that the Government can take necessary steps to save the lives of people and to minimize the losses.

7. BEHAVIOUR — BE

Collects various image from the disaster prone areas and tries to analyze it one by one to classify them

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

Identify strong TR & EM

3. TRIGGERS — TR

1.Urge of saving the lives of people
2.Fear of facing a downfall of economy due to the loss caused by natural disaster

4. EMOTIONS: BEFORE / AFTER — EM

BEFORE: Fear, Inadequate. Uncertain
AFTER: Proud, Happiness of saving people

10. YOUR SOLUTION — SL

We developed a multilayered deep convolutional neural network model that classifies the natural disaster accurately and within short span of time . The model uses an integrated webcam to capture the video frame and the video frame is compared with the Pre-trained model and the type of disaster is identified and showcased on the OpenCV window.

8. CHANNELS of BEHAVIOUR — CH

8.1 ONLINE

1. Collects images from online sources like google.
2.Gathering information about the disaster through social media by the common people.

8.2 OFFLINE

Classify the disaster from the collected image.

Identify strong TR & EM