Ideation Phase
Brainstorm & Idea Prioritization Template

Date	19 September 2022
Team ID	PNT2022TMID26770
Project Name	Natural Disasters Intensity Analysis and Classification using Artificial Intelligence
Maximum Marks	4 Marks

Step-1: Team Gathering, Collaboration and Select the Problem Statement

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Problem Statement

Natural catastrophes not only disrupt the ecology that supports human life, but they also obliterate vital facilities and properties in human society, changing the ecosystem permanently. Natural occurrences like earthquakes, cyclones, floods, and wildfires can bring disaster. To mitigate ecological losses from natural disasters, several deep learning approaches have been used by numerous researchers. However, identification of natural disasters still has difficulties because of the complex and unbalanced image structures. In order to address this issue, we created a multilayered deep convolutional neural network model that detects natural disasters and estimates their intensity.

Key rules of brainstorming
To run an smooth and productive session

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

Step-2: Brainstorm, Idea Listing and Grouping

2

Brainstorm

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Priyatharshini

It evaluates how severe the impending tragedy will be

Without any direct physical human intervention, disaster intensity can be forecast.

It'll be a benefcial invention for this society

It takes information from the built-in webcam to record video and an image frame.

Priyanka

It can easily predict and take actions without any human intervention

Early and accurate predictions ensures safety of people and other livestocks included

Livestock can be saved giving hope for their future even after the disaster occurs

Rescue team can work faster than ever with the accurate forecasting of AI, thus reducing damages and casualties

Annapoorani

It helps to reduce the property damage

Causalties can be reduced with the AI's prediction.

Rescue team can tend to the needs of victims without any human intervention with the help of AI

AI is the future technology that can help to protect both people and environment before or after the occurence of disaster.
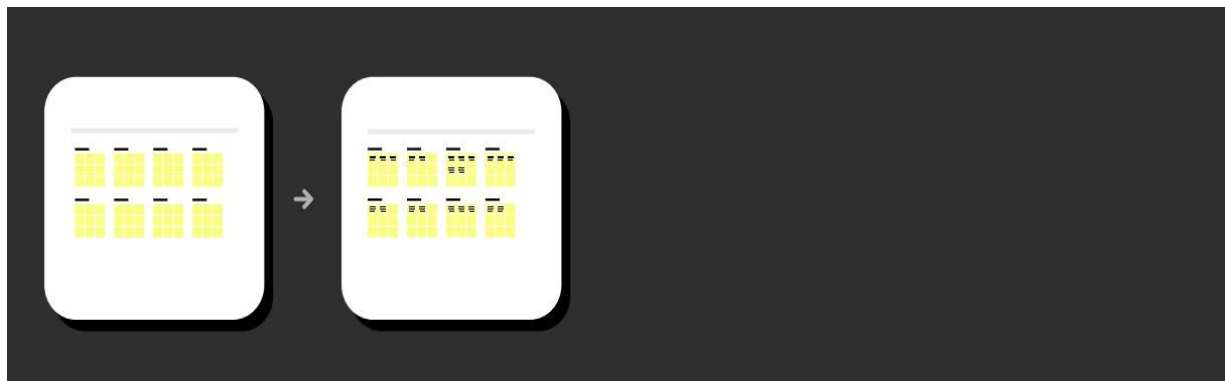
Ranjani

safegaurd and make available vital materials,supplies and equipment to ensure the safety and recovery of records from predictable disasters.

aims to reduce,or avoid,the potential losses from hazards,assure prompt and appropriate assistance to victims of disasters,achieve rapid and effective recovery.

the goal of disaster prediction is to maximize ciztiens awarness of the importance of proactive planning,and encourage participation in disaster prepardness activities.

disaster prediction is very important to avoid the enormous number of deaths caused by the hazardeous disasters.

3

Group ideas

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Accurate intensity prediction	Previous history can be used for data analytics which is more effective for future predictions	Artificial intelligence is playing increasingly important role in disaster risk reduction	currently AI can predict four types of natural disasters accurately.
With enormous amounts of good quality datasets, AI can predict the occurrence of numerous natural disasters, which can be the difference between life and death for thousands of people	AI analyses the data to learn about the patterns of various earthquakes and predict where the aftershock might hit..	Artificial intelligence can improve disaster response, from reducing the time to assess damage and effectively deliver aid.	With an AI strategy in place, disaster response will be quick as possible, also the amount of unplanned downtime could be reduced to virtually nothing.
tsunami can be predict through combining global navigation satellite system data with AI.	AI based algorithms can organize disaster data in the order of severity.	The system would use AI to analyze images of disaster and predict the damage they could cause.	It is important to analyze and assess the extent of damage and ensure the right aid goes first those who need it most.

Step-3: Idea Prioritization

4 Prioritize

A desktop-based GUI system with real-time storm prediction is available.

more precise natural disaster forecasting

It operates using AI Technology without Human Intervention

The suggested technique helps forecast the short-term spread of a wildfire.

sort the natural catastrophes according to different criteria

A fully connected Neural Network for segmentation that uses many levels of MultiVariable pattern recognition

The CLIPER model and gradient boosting tree were employed to predict cyclones.

Using seismological data, quickly and accurately detect earthquakes

To access the model for detecting flood damage areas, use a few parameters.

Prediction is based on Historical Data,

Create a platform for the general public to use for early tsunami prediction and information

Feasibility

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