

# COVID 19 CASES ANALYSIS

## AI & ADS:

A correlation study to assess the knowledge and self-expressed stigma regarding COVID-19 Outbreak among adults at selected society.

A global pandemic puts enormous stress on governments and healthcare services. Suddenly, there is a scramble to circulate the correct information and roll out products and services to deal with the crisis. These challenges design problems that are desperate for a solution, and design thinking can help. bring together a blend of product design, experience design, and service Design thinking is a methodology that provides a solution-based approach to solving problems. It combines what's desirable from a human point of view with what is technologically feasible and economically viable. It's useful in tackling loosely defined, complex problems by understanding human needs.

**Design thinking** is unique compared with other forms of problem-solving methods in that it's a non-linear process focused on delivering outcomes, rather than being focused on a precise problem definition. The design thinking process consists of five stages: **empathize, define, ideate, prototype, and test.** Each step needs to be given appropriate resources and the proper duration to create an end product that reliably meets user needs.

## **Dataset**

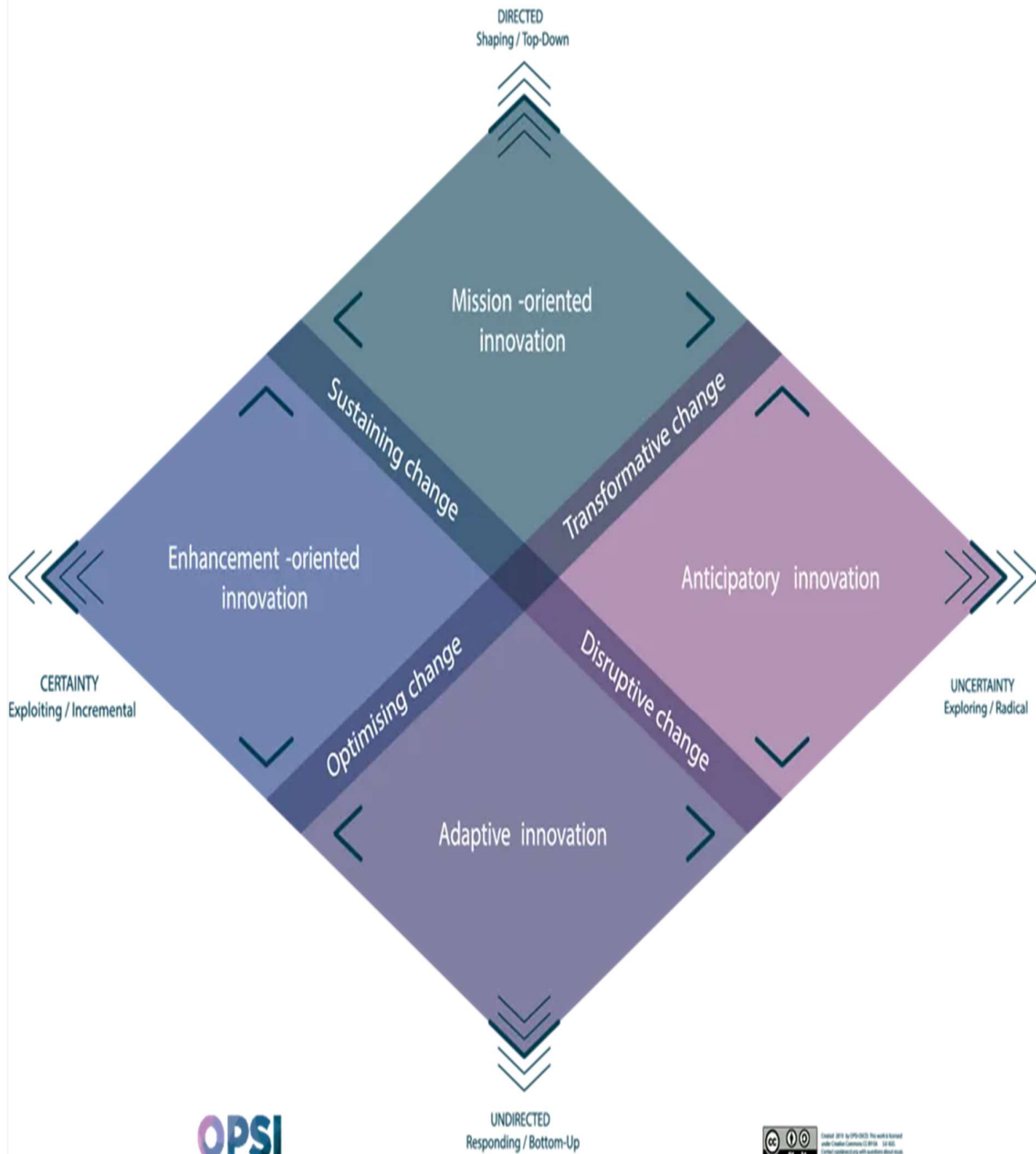
**Link:** <https://www.kaggle.com/datasets/chakradharmattapalli/covid-19-cases>

Artificial Intelligence (AI) also started to play a role in the fight against it. In this section, we will cover several areas regarding AI and DL applications which are helping against COVID-19. The authors presented a detailed comparative analysis of AI-, ML-, and DL-based algorithms used to forecast and identify the epidemic and diagnose the consequences of COVID-19. The authors proposed a

compound model for face mask detection. The proposed technique is a combination of both deep neural and traditional ML algorithms. In the first part of the DL algorithm, ResNet50 was used for high-level feature extraction. While in the second part, traditional ML algorithms named support vector machine, ensemble algorithms, and decision trees were used to detect face masks. Three different datasets were used in this research for the training and testing of the model. One dataset was for training while the other two datasets were used for the purpose of testing. The proposed technique achieved an average of 99.5% accuracy on all three datasets. The research offers a thorough evaluation of AI and ML as useful methods for tracking contacts, making predictions and forecasting. The authors discussed a thorough analysis of the current and promising use of AI and big data analytics (BDA) to manage the outbreak based on COVID-19 life cycle stages, such as detection, spread, management, and recovery. The authors also discussed the difficulties that BI in BDA in combat must face.

- Lowering the cost of and access to vaccines and medicines in the poorest countries.
- Using mobile money and microfinance to drive financial inclusion and small business development.
- Using community-based approaches to tackle malnutrition and sanitation.
- Using cash transfers to enhance food security.
- Using insurance and other adaptation measures to enhance resilience to disasters and climate change.

# INNOVATION FACETS

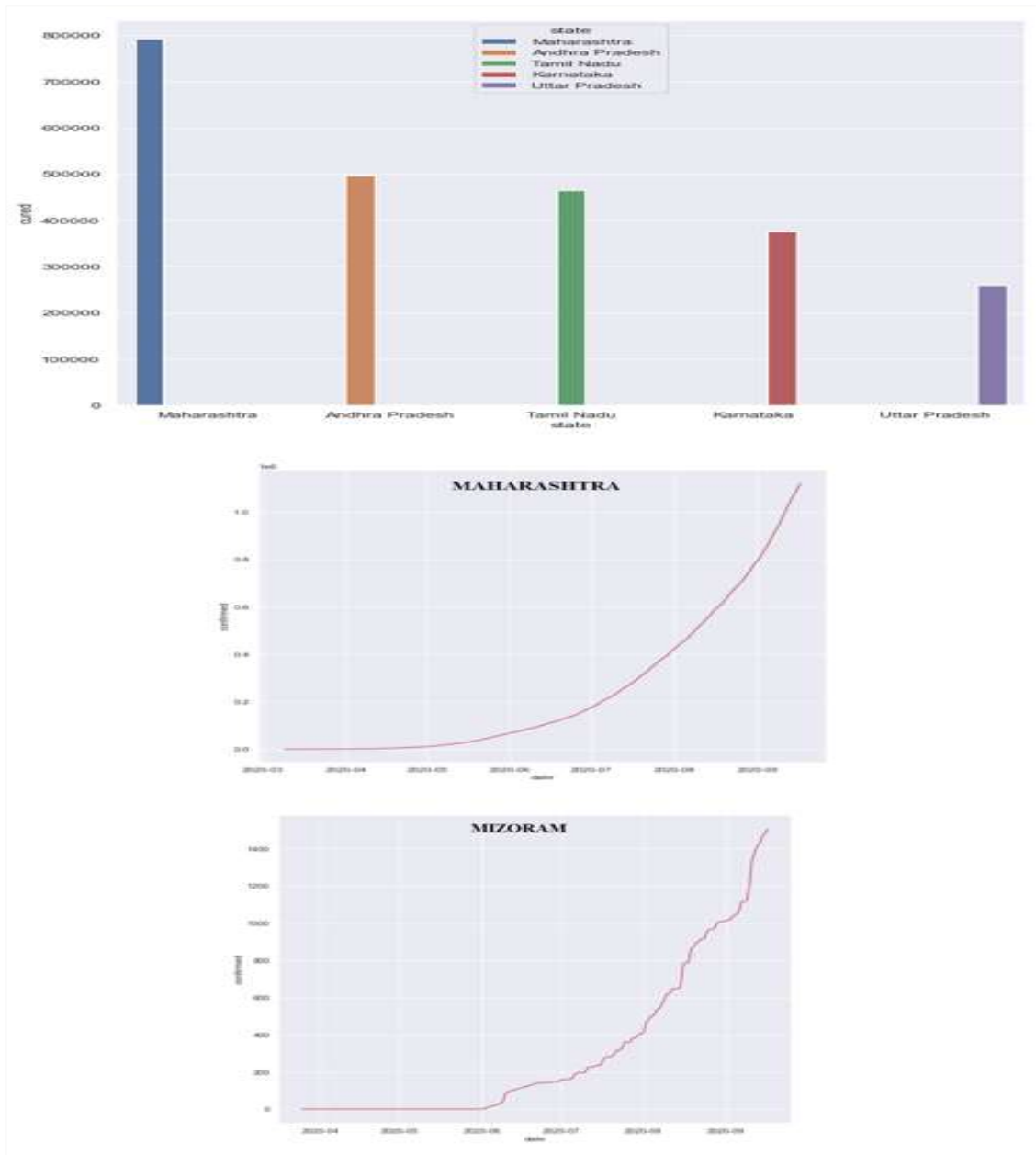


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## DAC:

The novel severe contagious respiratory syndrome coronavirus called COVID-19 has caused the most significant global challenge and public health, after the pandemic of influenza outbreak of 1918.

The adoption of the Internet of Things (IoT) and cloud computing in managing big data during an infectious disease outbreak has brought several opportunities. However, the required resources to collect such big data in a cloud-IoT platform are still a big challenge. Therefore, to efficiently manage an immense amount of data in an integrated Cloud-IoMT platform, this study recommends a framework for Cloud-IoMT-based big data analytics.

The data gathered from diverse wearable sensors such as body temperature, glucose sensors, heartbeat sensor, and chest were conveyed via IoMT gadgets to the integrated cloud with the data analytics layer. The cloud database Hadoop MapReduce methods can be used to process vast amounts of data collected during COVID-19 monitoring and surveillance in parallel.

For speedy tracking, evaluation, decision-making, and improved care approvals from doctors via IoMT devices to the advanced cloud and data analytics layer, data are gathered from diverse wearable sensors. The use of internal network by Cloud-IoMT-based big data analytics can help in tracking patient health conditions in real time globally, and this will reduce the workloads and pressure on the healthcare professionals, increase the accuracy