**PUBLIC HEALTH CARE AWARENESS**

# Phase 2: Innovation

**In Phase 1, we had established the basis of our public health care awareness project by defining the problem statement, analysis objectives, and the tools and methods we plan to use.**

**In Phase 2, we would be majorly focusing on implementing our design using an innovative solution. Here are the steps and considerations for this phase.**

# Step 1: Data Collection and Integration

**Data Sources**:

Identify and collect data from various public health awareness campaigns. This data may include campaign reach, engagement metrics, demographic information, and the type of content used.

**Data Integration:**

Ensure the data collected from different sources is integrated and cleaned for analysis. Data quality is crucial for meaningful insights.

**Data Fusion and Integration**: Integrating the cleaned and transformed data sets into a centralized repository or database. This involves merging data from different sources to create a cohesive dataset that provides a holistic view of the public health issue being addressed.

**Data Analysis and Insights:** Analyzing the integrated data to identify patterns, trends, and correlations related to the public health issue. Statistical methods, machine learning algorithms, and data visualization techniques may be employed to derive actionable insights and meaningful conclusion

# Step 2: Advanced Data Analytics

**Descriptive Analytics:**

Use descriptive statistics to summarize and explore the collected data. Understand key metrics, such as reach, engagement, and demographic information.

**Predictive Analytics:**

Apply predictive modelling to forecast future campaign performance. Use historical data and statistics to build predictive models for better targeting in future campaigns.

**Prescriptive Analytics:**

Provide executable recommendations based on the insights gained from the data. For example, suggest the best times to launch campaigns or which channels are most effective for specific demographics.

# Step 3: AI and Machine Learning

**Segmentation**: Utilize machine learning techniques for audience segmentation. We can identify different audience groups that respond differently to campaigns, enabling more tailored messaging and a wider reach.

**Recommendation Systems**: we can develop recommendation algorithms for a more personalized campaign content. This ensures that individuals receive information most relevant to their needs and all individuals’ needs are met.

**Sentiment Analysis:** Implementing sentiment analysis is important to understand how the public perceives,interprets and reacts to health campaigns. Identify areas that require improved messaging or clarification.

# Step 4: Design Thinking

**Empathy Mapping:** Develop empathy maps to understand the audience's needs , behaviors, and pain points more efficiently. This helps in creating more effective and empathetic campaigns.

**Idea Generation:** Conduct brainstorming sessions to generate innovative campaign ideas based on the analysis and audience insights.

**Prototyping:** Create prototypes of new campaign materials or strategies. Test these prototypes with a small group to gather feedback before fullscale implementation .

# Step 5: Tools and Technology

**Artificial Intelligence**: Utilize AI tools for natural language processing, sentiment analysis, and recommendation systems. Tools like Python, TensorFlow, and NLTK can be beneficial.

**Visualization Tools:** Use data visualization tools to present insights. IBM Cognos, Tableau, or Power BI can help in creating compelling visualizations.

# Step 6: Implementation

**Pilot Campaigns**: Launch smallscale campaigns based on the insights and prototypes developed. Collect data and feedback during these pilot campaigns.These are helpful to get an insight as to how the fullscale implementation would turn out to be.

**Continuous Improvement**: Continuously analyse and refine campaigns based on realtime data and user feedback allowing for more improvement. Implement A/B testing to assess the impact of changes.

# Step 7: Evaluation

**Measure Impact:** Continuously monitor the impact of the campaigns by assessing key performance indicators (KPIs) such as increased awareness, changed behaviours, or engagement levels.

**Feedback Loop**: Collect feedback from the public and stakeholders to make necessary adjustments and improvements.

# Step 8: Scaling and Sustainability

**Scaling Up:** If pilot campaigns are successful, scale up the innovative strategies to reach a wider audience.

**Sustainability:** Secure long term funding and support for the project by demonstrating its effectiveness in improving public health awareness.

# Step 9: Reporting and Sharing

**Regular Reports**: Share regular reports with stakeholders, showcasing the impact of the innovative strategies and data driven campaigns.

**Knowledge Sharing:** Share our findings and innovative approaches with the public health community and organizations to contribute to the collective knowledge.

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