Project Name :

CORONAVIRUS TWEET SENTIMENT ANALYSIS

Presented By : Siddharth Kewat
College Name : Arya College Of Engineering And IT
Department : Information Technology

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OUTLINE

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ABSTRACT

- The study aims to analyze the sentiments expressed in tweets related to the Coronavirus pandemic. By examining the language used in these tweets, we can gain insights into public opinion and emotional responses to the crisis. The findings will contribute to a deeper understanding of the societal impact of the pandemic.

- This challenge involves building a model to predict sentiment of COVID-19 tweets.

- Sentiment analysis helps understand public opinion and reaction during the pandemic.

- We'll use machine learning and deep learning techniques to build the model.

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PROBLEM STATEMENT

- This challenge asks you to build a classification model to predict the sentiment of COVID-19 tweets. The tweets have been pulled from Twitter and manual tagging has been done then. The names and usernames have been   given codes to avoid any privacy concerns.

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PROPOSED SOLUTION

- A dataset of Coronavirus-related tweets was obtained from various sources, including social media platforms and news websites. The dataset contains millions of tweets spanning different languages and geographic regions, providing a diverse range of perspectives on the pandemic.

- - Data sourced from Twitter API.

- - Dataset contains anonymized tweets with manual sentiment tags.

- - Tags: Positive, Negative, Neutral.

SENTIMENT ANALYSIS

- Using natural language processing techniques, sentiment analysis was conducted to categorize the tweets into positive, negative, and neutral sentiments. This involved identifying emotional cues and linguistic patterns to determine the prevailing attitudes towards the Coronavirus.

KEY FINDINGS

- The analysis revealed a spectrum of emotions expressed in Coronavirus tweets, ranging from fear and anxiety to resilience and solidarity. The findings shed light on the psychological impact of the pandemic and the evolving public sentiment towards the crisis.

- - Model performance summary: Accuracy, Precision, Recall, F1-score.

- - Confusion matrix for the best model.

- - Examples of correctly and incorrectly classified tweets.

- - Analysis of misclassifications and potential improvements.

IMPLICATIONS

- Understanding the sentiments expressed in Coronavirus tweets has implications for public health communication and crisis management. By gauging public sentiment, authorities can tailor their messaging and interventions to address specific emotional needs and concerns of the population.

- - Extract features from tweets: Sentiment lexicons, POS tagging.

- - Additional features: Tweet length, presence of emojis, hashtags, etc.

RESULT

- **Description:** Present the outcomes of your project.

- **Content: :**

- Performance Metrics: Accuracy, Precision, Recall, F1-Score.

- Confusion Matrix: Visualization and interpretation.

- Comparative Analysis: Performance comparison of different models.

CONCLUSION

- The analysis of Coronavirus tweets provided valuable insights into the emotional responses and attitudes of the public towards the pandemic. This study underscores the importance of sentiment analysis in understanding societal reactions to crises and informing evidence-based interventions.

- - Key findings: Model performance and insights on public sentiment.

- - Implications: Understanding public reaction to the pandemic.

- - Limitations: Data limitations, model biases.

- - Future work: More data, advanced models, real-time analysis.

FUTURE SCOPE

- **Description:** Suggest potential future work and improvements.
- **Content:**
 Enhancements: Possible improvements in data preprocessing, feature extraction, model accuracy.
- Extensions: Other potential applications of the model.
- Scalability: How the model can be scaled or adapted for other datasets.

REFERENCES

- **Description:** Cite all sources and references used in your project.

- **Content:**

- Papers, articles, and books referenced.

- Online resources, datasets, and tools.

- Proper citation format.

- **Description:** Discuss any issues or challenges faced during the project.

  - Data Issues: Any problems with the data quality or quantity.

  - Model Challenges: Difficulties encountered during model training or tuning.

  - Interpretation Issues: Challenges in interpreting the results.