Paper Title:
Sentiment Analysis and Sarcasm Detection of Indian General Election Tweets

Paper Link:
https://arxiv.org/ftp/arxiv/papers/2201/2201.02127.pdf

1 Summary

1.1 Motivation

This paper aims to analyze the sentiments of people in India during the 2019 Indian general election using Twitter data. Sentiment analysis can provide insights into public opinion, which is useful for government, businesses, and media.

1.2 Contribution

The paper builds an automatic tweet analyzer using machine learning to handle the unsupervised nature of sentiment analysis on tweets. It also incorporates sarcasm detection, which has not been considered in previous election sentiment analysis research.

1.3 Methodology

The authors use a Linear SVC model along with TF-IDF text processing. They employ transfer learning - training the model on a labelled Twitter sentiment dataset and applying it to the election tweets. Sarcasm detection also uses a separate labelled dataset.

1.4 Conclusion

The model predicts election results within a 19% vote share difference. Sarcasm detection significantly changes sentiment ratios, confirming the need to account for sarcasm.

2 Limitations

2.1 Dataset biases

The Twitter data may not represent overall public opinion across India's population due to digital divide issues and users avoiding negative expressions.

2.2 Scope for improvements

The transfer learning approach could be replaced by more advanced unsupervised learning methods. Hate speech detection could also be incorporated.

3 Synthesis

This analysis highlights the need to detect sarcasm in sentiment analysis of political discussions on social media. The methodology could be extended to categorize negative sentiments and filter hate speech. Overall, it demonstrates the promise of using Twitter data to gauge public opinion for elections.