Paper Title:
Fake news detection based on news content and social contexts: a transformer-based approach

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1. Summary

1.1 Motivation

Fake news has become alarming nowadays. There are no regulations in social media and online portals. Thus to detect early detection of fake news, the researchers proposed a detection of fake news from multiple sources like social media and news content.

1.2 Contribution

The main focus of the research was to detect fake news as fast as possible to stop the news from spreading. Moreover, the researcher proposed a transformer based approach which classified fake news better than other approaches according to the researchers.

1.3 Methodology

The researchers got inspired by the BART model and incorporated a custom model for the detection of fake news detection. They proposed a multi-head attention to weigh the importance of different pieces of information. Also the researcher adds a linear transformation and SoftMax layer to output the final target label. So the overall experiment is that the collected text data is converted using embedding and then classified using a transformer based model.

1.4 Conclusion

In conclusion the research proposed a transformer based model to detect fake news and achieved 74.8% accuracy. The researchers also used different models for newspaper and social media platforms which makes the proposed model more robust for classification tasks.

2 Limitations

The dataset used by the research had data which were not updated and only english language data was used for the research. Hence, there is a way to improve the overall work for a multilingual dataset.

Moreover, the pretrained transformer based model has lots of weights and uses a lot of computational power for classification tasks. Hence there might be a way to use a less weighted model for the task.

3 Synthesis

The researcher worked on the early detection of English fake news detection. However, we can further improve the work by creating a multilingual fake news detection. Moreover, with the advancement of the transformer based model we can further improve the model by using more advanced techniques.