

INNOVATION OF FAKE NEWS DETECTION USING NLP

INTRODUCTION:

To detect false news, you must first preprocess the input text data to convert it into a numerical representation. Then, you must use this representation as input to the MLP, which is trained to classify the news as fake or genuine based on the features extracted from the input text data

ABSTRACT:

The proliferation of fake news in the digital age necessitates innovative solutions for its detection and mitigation. Natural Language Processing (NLP) emerges as a pivotal technology in this battle. This abstract highlights the innovative advancements in fake news detection using NLP techniques.

It employs techniques like stance detection, semantic analysis, and source credibility assessment to uncover linguistic cues and inconsistencies within news articles. Integration with fact-checking databases and temporal analysis enhances the determination of content accuracy and reliability.

METHODOLOGY :

In this section, we have discussed the methodology of our work in great detail. We have explained all the regular machine learning, neural network and NLP methods that we have used in our dataset.

In this work, an open-source fake news dataset from Kaggle [10] has been used. The public dataset has been created by web scrapping of different search engines. Lots of fake news and agenda always take place around us, so the whole data was curated with the help of automated data science technologies.

It was posted on the data science community as a challenge to use those data to implement efficient fake news detection architecture. This specific Journal of Advances in Information Technology Vol. 13, No. 6, December 2022653database of fake news has been utilized in this work because it involves a diverse dataset from a wide variety of news portals and social sites.

The dataset comprises 26,000 unique sample documents and has been used successfully in some papers to identify fake news. The original dataset has four columns, viz. id, title, author, text.

The id column represents a particular numerical label for a news article; the title holds the heading of a news article; the author column contains the

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information about the writer of the news item; and finally, under the text column, the text of the report has been described. The training dataset has the label column, which marks the news item as potentially unreliable or reliable.

CONCLUSION:

As a result, we can explicitly make use of publishers' and users' credibility to detect early fake news. The research conducted experiments on three real-world datasets, and the results show that SMAN can detect fake news in 4 hours with an accuracy of over 91%, which is much faster than the state-of-the-art models.