

International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)

International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal

Volume 4, Issue 4, April 2024

## Sentiment Analysis using Deep Learning

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**Abstract:** The use of online platforms and the internet is increasing daily. Businesses and political organizations might benefit from knowing public opinion when making strategic decisions. Given this, sentiment analysis is crucial for determining the polarity of the public's opinions. These days, this vast amount of data can be put to good use. Sentiment analysis of text posts can yield knowledge and information useful for social contexts, business intelligence, Internet of Things (IOT) mood-triggered devices, and citizen opinion polling.

The sentiment analysis based on Emotional Recognition (ER) is the primary focus. The primary goal is to deploy the algorithm for sentiment prediction across all online platforms using emoji, length words, and generic terms. Additionally, we will contrast the conventional understanding of sentiment analysis. We can attempt to regulate some illicit actions posted on social media and movie review websites by using sentiment analysis.

The process is broken down into six parts in this model: feature engineering is the third phase, data preprocessing is the second, and data overview is the first. Model selection comes in fourth, model evaluation comes in fifth, and model deployment comes in last.

We can strive to get results in two classes: good and bad sentiment, or positive and negative. Two columns are attempted to be created: one for the data sample and one for the outcome. Thus, the forementioned procedure concludes that using the length words and emoji from the data will boost the sentiment analysis's accuracy.

Keywords: Sentiment, LSTM, NLP

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