IMPLEMENTATION OF LSTM ALGORITHM TO DETECT FAKE NEWS

ALVINUS CARDOVA

Informatics Study Program, Faculty of Science & Technology University of Technology Yogyakarta Jl. Ringroad Utara Jombor Sleman Yogyakarta E-mail : <u>alvinuscardova16@gmail.com</u>

ABSTRACT

Hoax is fake news that is currently spreading widely through social media. This causes many people to misunderstand the news. To deal with the spread of hoaxes through social media, it is important for people to think critically in receiving information. Currently there is a Fact Checker Platform Directory that provides truth information from trusted fact-checking sites. Every news on the platform will be categorized as a hoax by a validator who checks it manually. This study aims to apply deep learning techniques, such as Long Short Term Memory (LSTM), in identifying factual news and fake news. The methods to be used include collecting data from the PolitiFact.com site which provides hoax news and factual news, followed by data labeling, data preprocessing, use of word embedding, data separation, formation of LSTM models, evaluation, testing with new data. The data used amounted to 150 news with 6 factual news and 144 fake news. The model in this study was able to produce the highest F1-score accuracy of 97% with Tokenizer embedding. Tokenization method can be one of the right choices to do fake news detection with its ability to capture semantic and contextual information in text.

Keywords: Fake News, Algorithm, LSTM