

ABSTRACT

Artificial Intelligence (AI) is intelligence that is added to a system and then developed to study and imitate like human intelligence. Some of the technologies resulting from the development of AI include sentiment analysis technology. Sentiment analysis technology is the process of using analytical text to obtain various data sources from the internet and social media platforms. The purpose of sentiment analysis is to obtain opinions from users on the platform. To get the dataset to be processed, Tweepy technology is needed. Tweepy technology is used to perform web scraping datasets in the form of tweets. This Final Project implements sentiment analysis technology to determine the type of tweets containing porn contents and uses Tweepy technology to obtain a tweets for dataset.

In this Final Project design a sentiment analysis system using Bidirectional Encoder Representations from Transformers (BERT) as a sentiment analysis algorithm, and Tweepy technology to perform web scraping. The system that has been designed produces a sentiment analysis that can obtain positive or negative opinions based on tweets user accounts. The system is designed using Python programming language, Google Colab to design the system, and Visual Studi Code to do web scraping.

The system in this Final Project is trained using a random dataset of 840 tweets datasets. The performance parameter analyzed are accuracy, precision, recall, and F1-Score. The system is tested using two types of labels, label '0' for tweets containing porn elements, and label '1' for tweets that do not containing porn elements. From the test result, the system has obtained good accuracy performance result with 98%.

Keywords: *BERT, web scraping, sentiment analysis, Tweepy.*