

ABSTRAK

Andhika Fathur Rahman, Analisis Sentimen Komentar Pengguna di Twitch Menggunakan Long Short-Term Memory (LSTM), di bawah bimbingan Dr. Teguh Nurhadi Suharsono S.T.,M.T.

Twitch merupakan platform live streaming yang menyediakan ruang interaksi antara *streamer* dan pengguna melalui komentar. Komentar-komentar ini dapat mencerminkan opini, emosi, dan persepsi publik, sehingga menjadi data penting untuk dianalisis. Namun, karakteristik bahasa yang digunakan dalam komentar Twitch, seperti singkatan, emote, hingga bahasa gaul, menghadirkan tantangan tersendiri dalam proses analisis sentimen.

Penelitian ini bertujuan untuk menganalisis sentimen komentar pengguna di Twitch menggunakan algoritma Long Short-Term Memory (LSTM), sebuah arsitektur jaringan saraf dalam deep learning yang mampu mengenali pola pada data berurutan. Dataset diambil dari Kaggle dan terdiri atas lebih dari 97.000 komentar. Proses penelitian melibatkan tahapan preprocessing teks, seperti case folding, stopword removal, normalisasi kata, tokenizing, dan lemmatization, serta penanganan data tidak seimbang dan evaluasi model menggunakan confusion matrix.

Hasil penelitian menunjukkan bahwa model LSTM mampu mengklasifikasikan komentar pengguna Twitch ke dalam tiga kategori sentimen—positif, netral, dan negatif—dengan akurasi yang baik. Penerapan model ini berpotensi membantu pengembang platform dan pelaku industri dalam memahami opini pengguna secara otomatis dan real-time, serta menjadi acuan pengambilan keputusan berbasis data.

Kata Kunci: Analisis Sentimen, Twitch, Komentar Pengguna, LSTM, Deep Learning,

ABSTRACT

Andhika Fathur Rahman, Analysis of User Comment Sentiment on Twitch Using Long Short-Term Memory (LSTM), under the supervision of Dr. Teguh Nurhadi Suharsono S.T.,M.T.

Twitch is a live streaming platform that provides a space for interaction between streamers and users through comments. These comments can reflect public opinion, emotions, and perceptions, making them important data for analysis. However, the characteristics of the language used in Twitch comments, such as abbreviations, emotes, and slang, present unique challenges in the sentiment analysis process.

This study aims to analyze user sentiment in Twitch comments using the Long Short-Term Memory (LSTM) algorithm, a neural network architecture in deep learning that is capable of recognizing patterns in sequential data. The dataset was taken from Kaggle and consisted of more than 97,000 comments. The research process involved text preprocessing stages, such as case folding, stopword removal, word normalization, tokenizing, and lemmatization, as well as handling imbalanced data and evaluating the model using a confusion matrix.

The results of the research show that the LSTM model is capable of classifying Twitch user comments into three sentiment categories—positive, neutral, and negative—with good accuracy. The application of this model has the potential to help platform developers and industry players understand user opinions automatically and in real-time. and serve as a reference for data-driven decision making.

Keywords: Sentiment Analysis, Twitch, User Comments, LSTM, Deep Learning,