Abstract

Social media has become one of the most popular platforms for sharing information, entertainment, and helping people relieve stress from their daily activities. It has also become a necessity for a significant portion of the population, especially in Indonesia. One of the social media platforms frequently used by Indonesians is Twitter. Twitter allows users to share posts, commonly referred to as "tweets," which can include text, photos, videos, or GIFs, with the public. One of Twitter's key features is the retweet function. This feature allows users to share a post again, whether it's their own or another user's post. The retweet function plays a crucial role in the dissemination of information. This study discusses retweet prediction using content-based, user-based, and time-based features with the classification method of Artificial Neural Networks (ANN), optimized with the Glowworm Swarm Optimization (GSO) algorithm to achieve higher accuracy. The ANN model optimized with GSO demonstrated the best results when oversampling scenarios were applied, achieving an accuracy of 78% and an F1-Score of 78%. The implementation of GSO led to improvements in the overall performance of the predictive model.

Keywords : classification, Twitter, retweet, ANN, GSO