Abstract

The spread of rumors by word of mouth is increasing rapidly with the existence of social media such as Twitter. In everyday life, many events occur and give rise to various kinds of information, which are also rumors. Rumors can cause fear and influence public opinion about the event in question. Identifying possible rumor spreaders is extremely helpful in preventing the spread of rumors. Feature extraction can be done to expand the feature set, which consists of conversational features in the form of social networks formed from user replies, user features such as following, tweet count, verified, etc., and tweet features with text analysis such as punctuation and sentiment values. These features become instances used for classification. This study aims to identify possible spreaders of rumors on Twitter with the SVM classification model. This instance-based classification algorithm is good for linear and non-linear classification. In the non-linear classification, additional kernels are used, such as linear, RBF, and sigmoid. The research focuses on getting the best model with high performance values from all the models and kernel functions that have been defined. It was found that the SVM classification model with the RBF kernel has a high overall performance value for each data combination with a ratio of the amount of data between 1:9 and 1:2. This model gives accurate results with an average of 97.02%. With a wide distribution of data, the SVM classification model with the RBF kernel is able to map the data properly.

Keywords: spreaders, rumor, Twitter, account, SVM