



Sentiment and Discussion Topic Analysis on Social Media Group using Support Vector Machine

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Abstract– The growth of social media in this modern era is increasingly rapid, where people are very active digitally interacting with each other. People who have a common interest or simply like to be in a community often gather in an online group, especially on Facebook. Alumni of Telkom University are no exception, who are also actively discussing and sharing information in Telkom University Alumni Forum Facebook group (FAST). By using their status from that group, sentiment and topic discussion analysis can be performed to determine whether the polarity is positive, neutral, or negative. In Addition, topic modeling extracts what topics are often discussed in the group. In this research, sentiment analysis was performed using the Support Vector Machine (SVM) method. Also, the classification process involved TF-IDF for word weighting and confusion matrix as performance measurement. Several testing scenarios were carried out to get the best accuracy value. Based on the tests performed on the preprocessing technique and feature extraction n-gram addition, the highest accuracy value obtained is 80.56%. The result indicates that the best performance is obtained by combining preprocessing techniques without the stopword removal process and feature extraction unigram. Moreover, the topics discussed based on topic modeling results were related to telecommunication and Telkom, Indonesia, alumni, and FAST.

Keywords: Telkom University; Facebook; Sentiment Analysis; Support Vector Machine; Topic Modeling