Abstract

In this paper, an ensemble of machine learning classifiers approach is used to classify the sentiment polarity of Arabic texts. This approach is based on the Majority voting algorithm in conjunction with four classifiers, namely Naive Bayes, Support Vector Machine, Decision Trees and K-Nearest Neighbor algorithms. Four combinations of these classifiers are formed and three classifiers are chosen for each voting combination, the performance of each classifier is evaluated and compared to ensemble voting combination performance different experiments have been done to evaluate this approach to features, Unigram, Bigram. Three datasets with different sizes are used in our experiments. The first dataset contains 500 movie reviews, the second one contains 2000 Arabic tweets and the third one contains 16448 of Arabic book reviews. The experimental results show that the ensemble of the classifiers comparatively gives better results than individual classifiers. They also reveal that the results of support vector machine classifier are better than the results of other individual classifiers. Moreover, the results of the Bigram feature are better than the results of the unigram feature.