

ABSTRACT

Online marketing media usually provide review features for users to fill in reviews of the products or services purchased. To process the review into useful information for the owner, you can use aspect based sentiment analysis (ABSA). ABSA is a technique to categorize these opinions into certain aspects and to classify sentiments. The method used is SVM, Ontology, Bag of Words (BoW), Synonym of WordNet. Ontology is used for Ontology classification and is used for features. BoW is used for feature extraction, features are obtained from terms in Ontology and synonyms for terms. Sentiment classification and aspect classification using Ontology and SVM. One sentence is classified using an ontology classification if the classification fails then one sentence is classified by SVM. For evaluation, comparing methods using synonyms and without synonyms, and also comparing using ontology classifications and not using ontology classifications, and also comparing the SVM method with the Radial Basis Function (RBF) kernel and SVM with the Polynomial kernel. Evaluation of sentiment classification for the best F1-measure results is 87.25% using synonyms and ontology classification and RBF kernel. Meanwhile, the evaluation for the aspect classification of the best F1-measure results is 60.65% using synonyms and the RBF kernel. The results show that the use of synonyms always produces a higher F1-measure than without synonyms. The use of synonyms is quite effective in increasing the F1-measure value because it can increase the number of features related to restaurant ABSA. In sentiment classification, the use of ontology classification is better because terms related to sentiments in ontology have a strong relationship with the ABSA Restaurant domain and also because the terms and sentiments in ontology are made for ABSA Restaurant by experts.

Keywords: aspect based sentiment analysis, ontology, Bag of Words, wordnet synonyms