Abstract

This work proposes a new semi-supervised sentiment classification method by exploiting a large number of unlabeled instances to conduct sentiment classification for Web consumer reviews. In the proposed method every consumer review has two views: subjective view and objective view. The subjective view of a consumer review reflects the opinions expressed by opinion words, while the objective view is constructed by the remaining text features. This work is trying to combine two kinds of views to carry out sentiment classification. The method is based on the co-training framework which needs three basic sentiment classifiers to iteratively get the final sentiment classifier. In the proposed method, the first sentiment classifier is constructed using the common unigram features coming from consumer reviews. The second sentiment classifier is trained on the subjective views constructed by opinion words extracted from consumer reviews. The remaining text features of these reviews are used for obtaining the objective views which can be trained for the third classifier. Experimental results show the proposed method is effective, and it has better performance than the Self-learning SVM method.

References

- A. Blum and T. Mitchell. "Combining labeled and unlabeled data with
Sentiment Classification using Subjective and Objective Views


Index Terms

Computer Science
Artificial Intelligence

Keywords
Sentiment Classification
Opinion Mining
Text Mining
Web Mining
Data Mining.