An Effective Approach to Automatic Feature Based Opinion Lexicon Expansion

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In many applications related to opinion mining and sentiment classification, it is necessary to compute the semantic orientation of certain opinion expressions on an object. Many researchers suggest that semantic orientation depends on application domains. Moreover, semantic orientation depends on the specific feature that an opinion is expressed on it. In this paper, we introduce an effective approach to opinion lexicon expansion automatically. We use small set of seed lexicon and dependency relations to extract opinion words and then, we expand it automatically from a larger set of unannotated documents. To do this, we proposed an unsupervised algorithm based on double propagation. Our method was evaluated in three different domains (headphones, hotels and car), using a corpus of product reviews which opinions were annotated at the feature level. We conclude that our method produces feature-level opinion lexicons with better precision and recall that domain-independent opinion lexicons without using annotated documents.