

Improving Polarity Classification for Financial News Using Semantic Similarity Techniques

ABSTRACT

This article discusses polarity classification for financial news articles. The proposed Semantic Sentiment Analyser makes use of semantic similarity techniques, sentiment composition rules, and the Positivity/Negativity (P/N) ratio in performing polarity classification. An experiment was conducted to compare the performance of three semantic similarity metrics namely HSO, LESK, and LIN to find the semantically similar pair of word as the input word. The best similarity technique (HSO) is incorporated into the sentiment analyser to find the possible polarity carrier from the analysed text before performing polarity classification. The performance of the proposed Semantic Sentiment Analyser was evaluated using a set of manually annotated financial news articles. The results obtained from the experiment showed that the proposed SSA was able to achieve an F-Score of 90.89% for all cases classification.