Review on Brand Related Sentiment Analysis in Commercial Field

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Abstract: We present an approach to brand-related amazon book review as dataset sentiment analysis using feature. The approach add associated with the unique characteristics of the R language, and the recall of mild sentiment expressions that are of interest to brand management practitioners. We demonstrate the effectiveness of the approach on an Amazon brand-related review dataset. The feature engineering produced a final review feature representation consisting of only seven dimensions, with greater feature density. Two sets of experiments were conducted in three-class and five class review sentiment classification. We compare the proposed approach to the performances of two state-of-the-art review sentiment analysis systems from the academic and commercial domains. The results indicate that the approach outperforms these state-of-the-art systems in both three-class and five-class tweet sentiment classification by wide margins.

Keywords: Feature engineering, n-gram analysis, Machine learning, SVM, amazon

Introduction

Sentiment analysis, also called opinion mining, is the field of study that analyzes people’s opinions, sentiments, evaluations, appraisals, attitudes, and emotions towards entities such as products, services, organizations, individuals, issues, events, topics, and their attributes. It represents a large problem space. There are also many names and slightly different tasks, e.g., sentiment analysis, opinion mining, opinion extraction, sentiment mining, subjectivity analysis, affect analysis, emotion analysis, review mining, etc. However, they are now all under the umbrella of sentiment analysis or opinion mining. While in industry, the term sentiment analysis is more commonly used, but in academia both sentiment analysis and opinion mining.
We have gathered an Amazon book review dataset. After applying a naive bias algorithm, we classify reviews into positive, negative, and neutral. Then, we identify features using feature engineering or other techniques. Action taken on preprocessing tasks include removing commas, “”, <span>, hash tags, spaces, and missing columns.

Business lending is a significant part of commercial banking. When receiving loan requests, loan officers usually assess the credit risk of the firm in order to control the quality of the loans and also to maximize the expected profit of the bank. Therefore, a good credit risk evaluation method becomes crucial to these financial institutions while credit scoring is proved to be the primary method to develop tools for credit risk assessment. At the inception, the assessment of credit risk.

Related Work
1. Paper on determining stock prediction using sentiment analysis and machine learning principles to find the correlation between “public sentiment” and “market sentiment.” Dataset is Twitter data to predict public mood and use the predicted mood and previous days’ DJIA values to predict the stock market movements. In order to test our results, we propose a new cross-validation method for financial data and obtain 75.56% accuracy using Self Organizing Fuzzy Neural Networks (SOFNN) on the Twitter feeds and DJIA values. We also implement a naive portfolio management strategy based on our predicted values.

2. NILC USP: A Hybrid System for Sentiment Analysis in Twitter Messages Pedro P. Balage Filho and Thiago A. S. Pardo Interinstitutional Center for Computational Linguistics (NILC) paper describes the NILC USP system that participated in SemEval-2013 Task 2: Sentiment Analysis in Twitter. System adopts a hybrid classification process that uses three classification approaches: rule-based, lexicon-based, and machine learning approaches. They suggest a pipeline architecture that extracts the best characteristics from each classifier. System achieved an Fscore of 56.31% in the Twitter message-level subtask.

3. Determining the Sentiment of Opinions Soo-Min Kim Information Sciences Institute University of Southern California 4676 Admiralty Way Marina del Rey, CA 90292-6695 skim@isi.edu Eduard Hovy Information Sciences Institute University of Southern California 4676 Admiralty Way Marina del Rey, CA 90292-6695 hovy@isi.edu This paper finds problem Identifying sentiments (the affective parts of opinions) is a challenging problem. They present a system that, given a topic, automatically finds the people who hold opinions about that topic and the sentiment of each opinion. The system contains a module for determining word sentiment and another for combining sentiments within a sentence. They experiment with various models of classifying and combining sentiment at the word and sentence levels, with promising results.


4. DATA TREATMENT WHITE PAPER Preparing data for analysis using R Nina Zumel, Win-Vector LLC March 2016 Win-
Methodology

We have gathered an Amazon book review dataset, applying a naive bias algorithm to classify reviews into positive, negative, and neutral. Features are identified using feature engineering or other feature techniques. Action: preprocessing tasks include removing commas, <span>m, hash tag, space, missing column</span>. Feature selection will be done, then postprocessing will apply.

Conclusion: This paper makes several contributions to Twitter sentiment analysis, demonstrated through application on a corpus of reviews related to the Amazon brand. Earlier research on Twitter classification classified factual sounding tweets as neutral reviews. Using this approach, they state that “more than 80%” of his review contain no sentiment. Our approach to sentiment analysis has increased sensitivity, accounting for review with mild sentiment (positive and negative), resulting in a more accurate identification of the neutral category.

References:
[1] Determining stock prediction using is sentiment analysis by Mittal
Interinstitutional Center for Computational Linguistics (NILC)