

INNOVATION OF SENTIMENT ANALYSIS FOR MARKETING

INTRODUCTION

Sentiment analysis is considered a natural language processing (NLP) method for analyzing users' orientations toward services and topics under consideration. The goal of sentiment analysis mechanisms is to differentiate between subjective and objective sentiments

ABSTRACT

Sentiment analysis is considered one of the significant trends of the recent few years. Due to the high importance and increasing use of social media and electronic services, the need for reviewing and enhancing the provided services has become crucial. Revising the user services is based mainly on sentiment analysis methodologies for analyzing users' polarities to different products and applications. Sentiment analysis for Arabic reviews is a major concern due to high morphological linguistics and complex polarity terms expressed in the reviews. In addition, the users can present their orientation towards a service or a product by using a hybrid or mix of polarity terms related to slang and standard terminologies. This paper provides a comprehensive review of recent sentiment.

PROPOSED SENTIMENT ANALYSIS METHODOLOGY

As discussed in the previous sections, recent sentiment analysis mechanisms depend mainly on different aspects. Firstly, the applied language or dialect contains users' reviews and comments. Secondly, the data preprocessing mechanism for cleaning and adapting datasets and corpus documents for sentiment analysis. Thirdly, the implemented lexicon-based or ML-based methods for manipulating datasets.

CROSS VALIDATION

The preprocessing stage should be in the correct position during the cross-validation process. Preprocessing steps are intended to be created using training data folds (preprocessing adaptors), and then the procedure is repeated using test data folds (using preprocessing adaptors for transformation).

DATA PROCESSING

After performing cross-validation on the sentiment analysis dataset, data preprocessing is executed to eliminate and clean the sentiments and their polarity terms from incorrect or unwanted terms that may affect the accuracy of the analysis process

FEATURE GENERATION

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In this research, the tweets are manually annotated using a unigram model that offers a reasonable coverage degree for the dataset. In order to extract the most important features from the training dataset, data preprocessing and feature generation are executed to convert the tweets into a feature vector. An encoder is generated from the vectorization process of the training dataset to

RESULT

As explained before, the collected dataset is based on the Arabic language that contains high and complex morphological sentiments and terms that can affect the performance of the experiments. The Arabic language is rich in many linguistic terms that indicate more than one meaning and orientation

CONCLUSION

Due to the continuous and increasing use of social networks and E-commerce sites, many platforms depend on the analysis of user opinions to improve the provided services and measure customer satisfaction. One of sentiment analysis's most common problems is the language customers use to express their opinions.