

بيانات البحث رقم (٤):

Arabic Sentiment Analysis for Multi-dialect Text using Machine Learning Techniques	عنوان البحث باللغة الإنجليزية
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ملخص البحث باللغة الإنجليزية:

Social media networks facilitated the availability and accessibility of a wide range of information and data. It allows the users to share and express their opinions. In addition, it presents the appraisals of the top news and the evaluation of movies, products, and services. This headway has been controlled by a well-known field called Sentiment Analysis (SA). Compared to the research studies conducted in English Sentiment Analysis (ESA), little effort is exerted in Arabic Sentiment Analysis (ASA). The Arabic language is a morphologically rich language that poses significant challenges to Natural Language Processing (NLP) systems. The purpose of the paper is to enrich the Arabic Sentiment Analysis via proposing a sentiment analysis model for analyzing an Arabic multi-dialect text using machine learning algorithms. The proposed model is applied to two datasets:



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ASTD Egyptian-Dialect tweets and RES Multi-Dialect restaurant reviews. Different evaluation measures were used to evaluate the proposed model to identify the best performing classifiers. The findings of this research revealed that the developed model outperformed the other two research works in terms of accuracy, precision, and recall. In addition, the Bernoulli Naive Bayes (BNB) classifier achieved the best results with 82% for the ASTD Egyptian-Dialect tweets dataset, while the SVM classifier scored the best accuracy result for the RES Multi-Dialect reviews dataset with 87.7%.