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Arabic Social media Analysis and unDerstanding (ASAD) Toolkit

ARABIC TWITTERSPHERE OFFERS VALUABLE DATA

Analysis of Arabic social media content has gained much recent interest, particularly the detection of offensive language and hate speech.
There are currently no comprehensive, publicly available systems for analyzing tweets for dialects, offensive language, hate speech, adult content, or spam. There are no online systems for emotion detection or topic classification.
There is a need for an integrated toolkit for this type of analysis.
A beta version of the ASAD web interface (http://asad.qcri.org) allows users to test modules like sentiment analysis, news categorization, and offensive language detection. Users can analyze random tweets or upload text files for bulk classification, with results provided as downloadable files including predicted classes and probabilities. For dialect identification, a heatmap displays the probability distribution, indicating the likely origin of the text.

ASAD FILLS AN IMPORTANT GAP IN SOCIAL MEDIA ANALYSIS

ASAD toolkit is a suite of eleven modules for identifying, within Arabic tweets, dialect, sentiment, emotion, news categories, offensiveness, hate speech, adult content, spam, gender, location, and country (based on name). The suite strikes a balance between effectiveness and efficiency to achieve the best results in a small and easy-to-deploy package. It is available for public use via Web application programming interface (API) or in a Web browser that allows users to enter text or upload files.

APPLICATIONS

➤ ASAD includes modules to:

• Quantify public opinions
• Analyze news content
• Identify malicious content such as hate speech
• Analyze regional dialects to help improve author profiling and machine translation

➤ ASAD can aid researchers, analysts, and system integrators in incorporating Arabic social media analytics and understanding into their models and applications

VALUE PROPOSITIONS

Simple to use: Available via online interface where users can enter text or upload files or via web API for automated processing of social media texts

Achieves competitive results: ASAD components were benchmarked using standard evaluation test sets and achieved state of the art on most of them. The results are obtained using a combination of machine learning and deep neural networks algrithms

Versatile: API accepts POST requests making ASAD accessible from common programming languages such as Python, Java, etc.

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PATENT STATUS

A copyright exists for this technology.

LICENSING OPPORTUNITIES

Hamad Bin Khalifa University is offering this technology for license.

For more information, please contact: innovation@hbku.edu.qa