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A Comparative Sentiment Analysis Towards Cryptocurrency Market and Blockchain Technology Using Twitter Data and Supervised Learning*

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Abstract

Sentiment analysis is a popular technique used by more and more companies and businesses in an attempt to get a better understanding of their customers and audience. Based on this method, one can try to extract the emotions expressed by individuals in the written texts, whether they are opinion blogs, reviews of certain products or comments posted on various social media platforms. Although it can be interpreted as a simple method of calculating the polarity of a text, sentiment analysis has many facets and used correctly can provide important insights in various contexts. The use of sentiment analysis in the area of the digital asset market is not new, it is often approached to identify whether individual emotions and their manifestation can influence the volatility of cryptocurrencies. This paper explores on one hand the public sentiment regarding the cryptocurrency market and Blockchain technology, on the other hand classifying 10k tweet messages and building four supervised learning algorithms for dividing the tweets into two classes: positive tweets and negative tweets. The work has the following structure. In the first part a short introduction on the chosen topic is presented, continuing with a review of the literature on the considered issue. The following discussed points are the research methodology and the empirical results, the article concluding with the presentation of the main conclusions and exposing some future research directions.

Keywords: sentiment analysis, logistic regression, Twitter data, classification, supervised learning

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