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Abstract

An Investigation of Sentiment Analysis on Stock Price Prediction

Sentiment analysis, which uses machine learning to analyze public opinion, has experienced a significant increase in the information systems environment (Delen, 2014). With the growth in sentiment analysis, numerous businesses are developing new methods for evaluating their overall performance via social media (Delen, 2014). Currently, Twitter data occupies the center of attention among researchers as a significant source for public opinion ((SCOPES, 2016). Recent research links public opinion on companies through social media to predicting stock prices (SCOPES, 2016). Stock market prediction based on public sentiment analysis, or also known as opinion mining, expressed in Twitter has become very important as studies show an increased level of accuracy in the results (Azar & Lo, 2016).

The purpose of this study is to highlight the impact of sentiment analysis on stock market prediction. Furthermore, we discuss the different approaches in machine learning, such as supervised versus unsupervised learning. The researchers plan to conduct a comparative analysis between these different approaches from a business perspective to investigate which approach provides the highest level of accuracy and efficiency regarding stock market prediction.