**Introduction**
- The amount of data in the world is growing at an alarming pace because of the use of smart devices, Internet of Things (IoT).
- Majority (80%) of this data is unstructured.
- Unstructured data can have lots of information and patterns especially related to human behavior.

**Background**
- Stock market prediction is one of the most important topics in the business world.
- It can be of two types, technical which looks at the prices and possible patterns and the other is fundamental where economic factors are used in the prediction.
- Stock market prediction based on the textual information about companies has been proved to be quite useful.

**Related Work**
- In 2002, a group of researchers applied text and data mining to study the financial condition and their future based on their annual reports. The issue with their solution was that it did not cover news articles [1].
- In 2006 Knolmayer and Mittermayer compared eight existing prototypes on text mining systems [2].
- In 2006, provided a Schumaker and Chen method that was used was predictive machine learning algorithm for news articles. They used bag of words, parts of speech tagging and named entities [3].

**Sample Data**
Shares of sports apparel maker Under Armour dropped nearly 6 percent on Monday, a day after defending champion Jordan Spieth lost the Masters golf tournament in a shocking meltdown. Spieth last year signed a 10-year agreement to wear the No. 2 U.S. sportswear maker's golf shoes and other clothes, and his collapse in Sunday's final round appeared to be partly behind the drop in the company's shares [4].

**Results**
- The actual stock value of Apple vs the suggestion by the sentiment analysis model

**Conclusions**
- There is a strong connection between the news articles or company news and the movement of the stock prices.
- A decent amount of data in needed to produce a result which matches closely to the actual results.
- It could also be used with the actual stock prices to get more detailed information about the company.

**Future Work**
- The accuracy could be increased with a better training set.
- Combining with the actual prices of stock will help in gaining an insight about possible stock prices as well.

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**References**