Predicting Political Alignment of an Individual using Sentimental Analysis

Introduction

- Sentimental analysis involves identifying and extracting emotional or subjective information from the textual data.
- Various businesses have employed sentimental analysis to understand the social sentiment of the consumers towards their brand or service.
- Advances in deep learning have improved the performance of sentimental analysis algorithms because of which a whole new world of possibilities have opened up.

Research Question

This project attempts to explore whether a machine learning model can be trained to predict an individual's political alignment by applying sentimental analysis to the comment left by them on the social media platform Reddit and to find an algorithm that performs the best among others by comparing their performance.
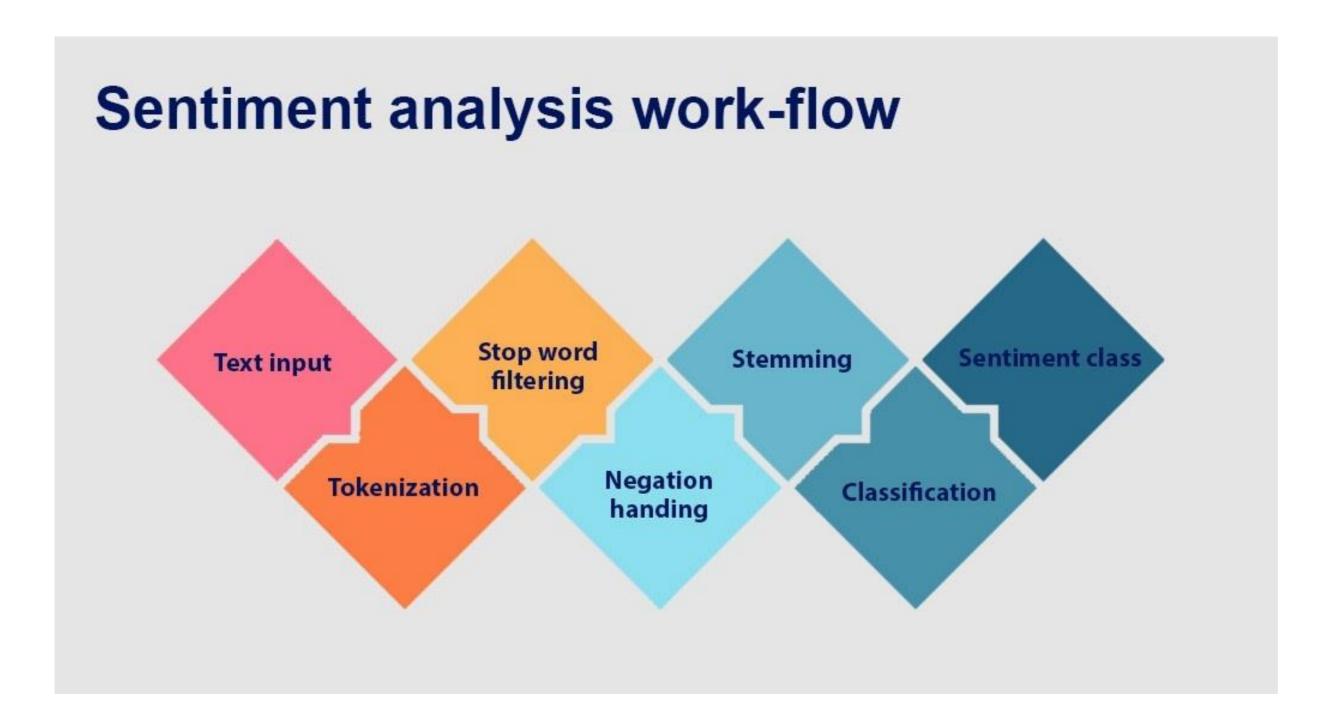

Figure 1. Image depicting the work flow of Sentiment Analysis[1]

The Dataset

The dataset is made up of posts by both Liberals and Conservatives on Reddit. Each data entry mainly has title which is the comment, their political alignment, whether a Liberal or a Conservative and few also have an explanation under their post.
Total count: 12854
Liberal Aligning: 8319
Conservative Aligning: 4535

Technologies

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References

1. https://cogitotech.medium.com/sentiment-analysis-how-it-works-types-everything-you-need-to-know-822a1f2ddeaf