

## Project Workflow

The project starts by collecting news data and processing it for analysis.

Natural Language Processing (NLP) methods, such as part-of-speech tagging, are used to understand how the text is structured and what it means.

### Feature Extraction

Use pre-trained models from Hugging Face to examine different aspects of the news headlines:

- **Emotion Detection:** The model "`emotion-english-distilroberta-base`" finds emotions like joy, sadness, anger, or fear in news headlines. Its accuracy is about 85%.
- **Offensive Language Detection:** The "`alexandrainst/da-offensive-detection-base`" model checks if the news contains offensive language, with up to 88% accuracy.
- **Hate Speech Classification:** The "`roberta-hate-speech-dynabench-r4-target`" model identifies hate speech in article titles, with around 92% accuracy.

These steps help us better understand the tone and content of political news at different times.

### Grade Level Assessment

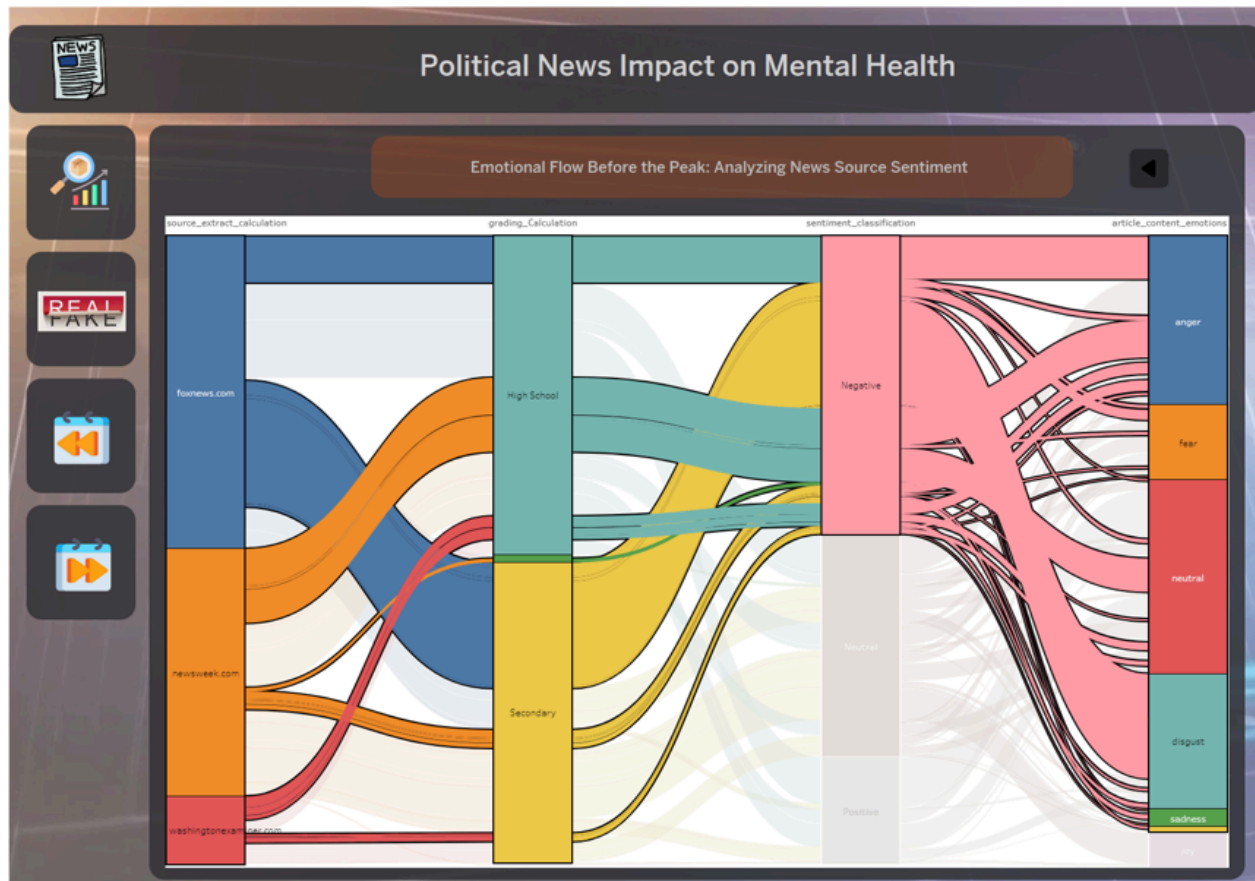
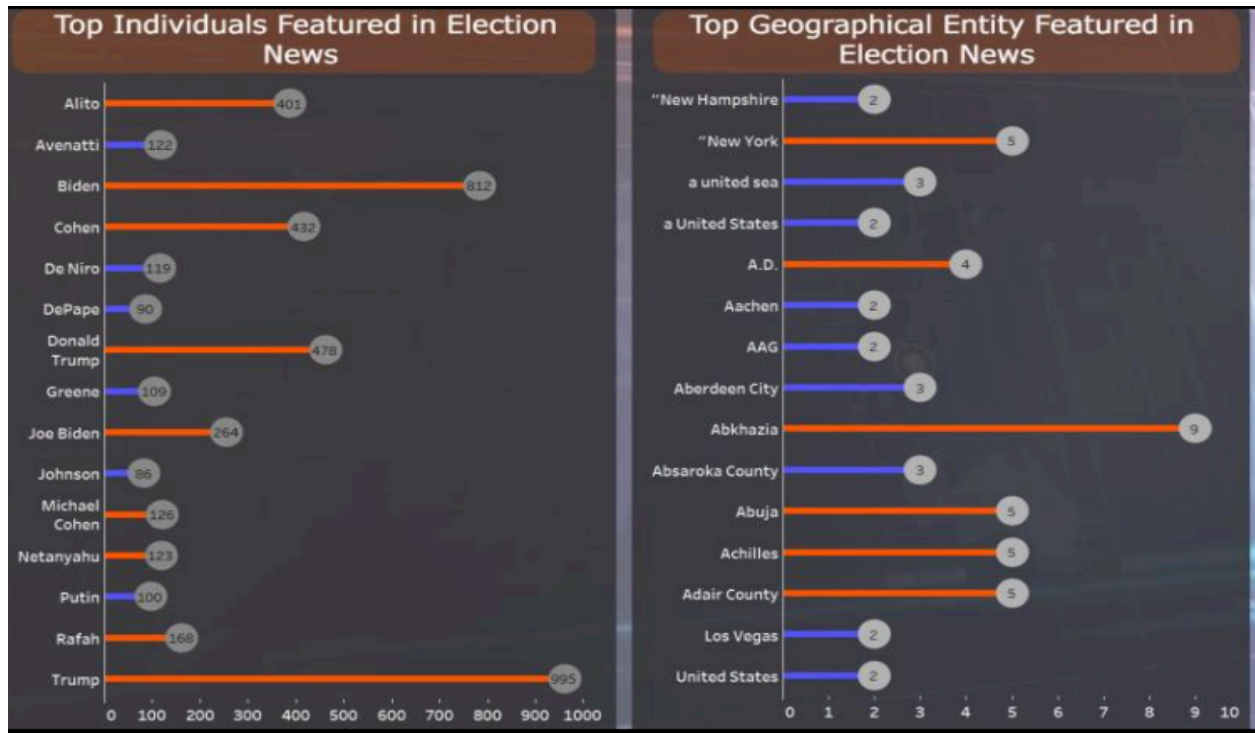
Statistical tests on news headlines to find out their reading grade level.

This allows us to see if the language in political news becomes simpler or more complex before and during the election period.

### Visualization

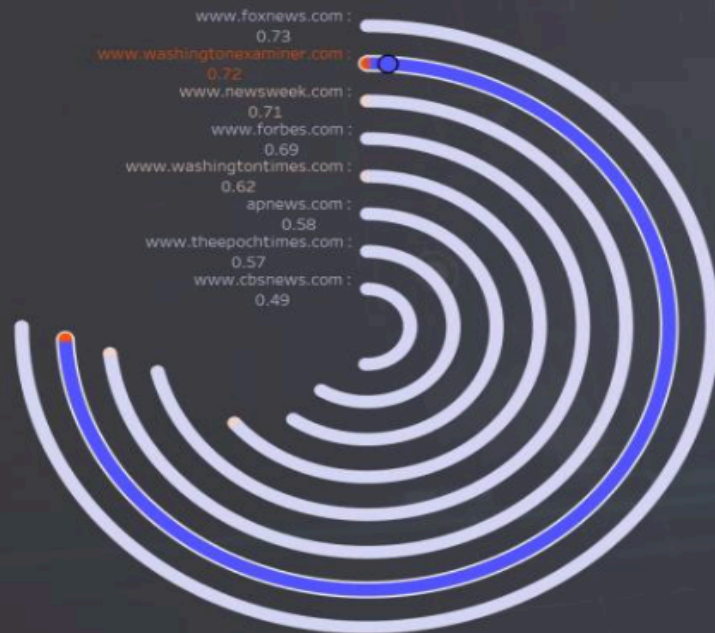
The processed data is visualized in Tableau, which is connected with TabPy for advanced analytics.

These visualizations make it easier to see and interpret the effects of political news on mental well-being.



## News at the Source: Leading Voices Before the Election

The radial chart visualizes the similarity score, helping identify the likelihood of news being real or fake.



## Political News Impact on Mental Health

Article Volume at the Height of the Trend

