
Liar Liar! Pants on Fire!

Fake News Detector powered by Machine Learning

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Reason for Topic Choice:

In a time when we can spread and receive information quickly, thanks to the technology and 4G networks , media literacy is very important.

Detecting fake news has become more important than ever for the sake of a peaceful society. A prediction tool would be a terrific way to help people make more educated decisions on news.



Only 26% of Americans are confident
in their ability to detect fake news

THAT MEANS THAT
242,868,000
AMERICANS
WOULD NOT BE ABLE TO
TELL **FACT** FROM **FAKE**

Source: [Statista](#)



A large set of True and Fake news would be used to create a model which would predict whether an input is True or False based on that model.

- The primary Dataset is from University of Victoria and Kaggle Dataset.
- Top 20 Fake/Real words using Naive Bayes classifier.





Questions We Hope to Answer:

- Is the article True or False?
- What is the accuracy of the prediction model?
- Are Fake news articles generally more negative in nature?

— Description of the Data Exploration phase of the project.

As a group, we went through several research articles and data sources looking for options for our dataset. We knew we wanted:

- **Source** of the article
- **Topic** such as World News, Sports, Politics, etc.
- **The Dataset** to already determine if the article was **Real/Fake**



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Description of the Analysis phase of the project.

Once deciding on a dataset, as a group, we needed to clean each dataset and join the Real and Fake CSV files into one. From here we used 1's and 0's to identify if the article was Real or Fake. We then analyzed the data set to find:

- **Frequency** of words in Real articles and Fake articles



Technologies and Tools used -

Technologies :

- Python
- SQLAlchemy
- Natural Language Processing
- Machine Learning
- HTML
- CSS
- Flask

Tools :

- Tableau
- Jupyter Notebook
- PostgreSQL

— Recommendations for Future Use

This project was designed to work on political news and not others such as pop culture.

What the team would have done differently?

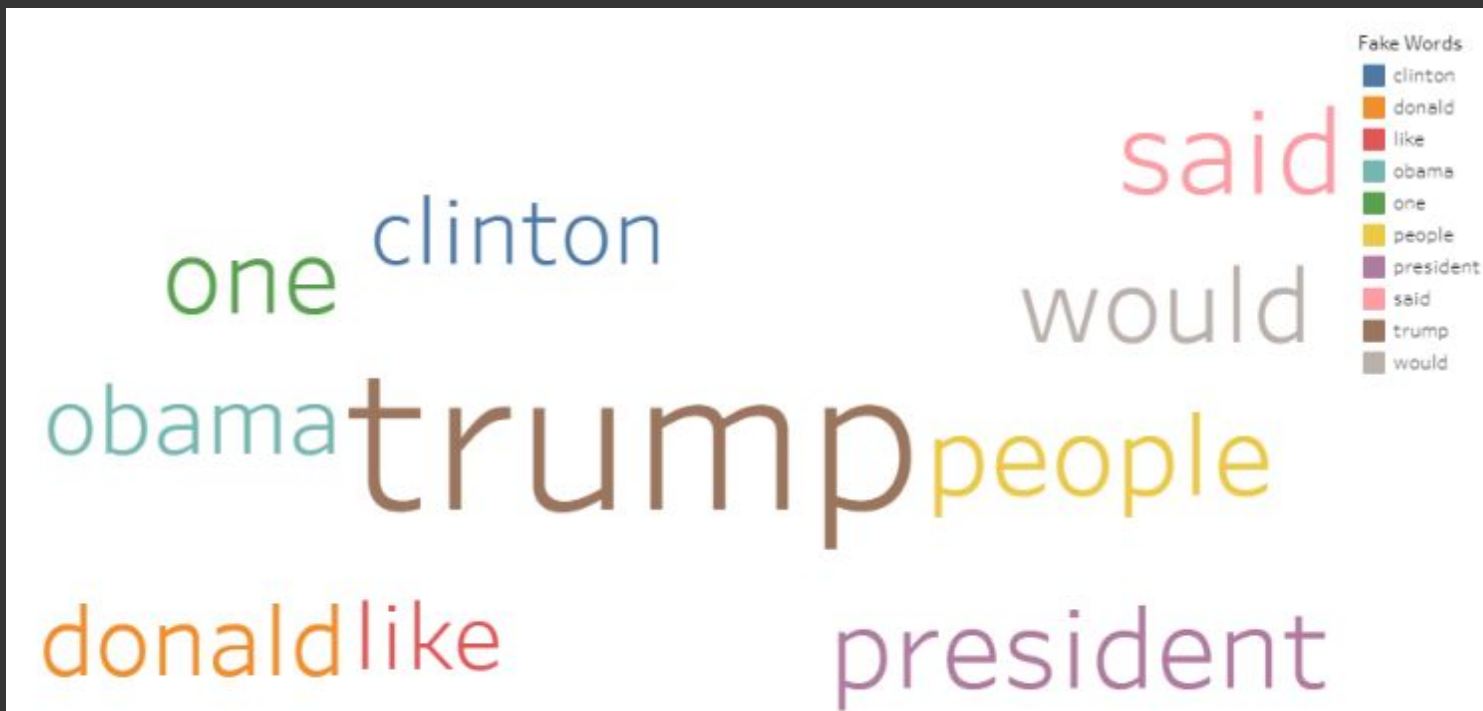


Quotes for illustration purposes only

Dashboard

<https://public.tableau.com/app/profile/muddassir.raza/viz/WordCloudCommonWordsinFakeandTrueNews/Story1?publish=yes>

Top 10 Common Words in Fake Articles



Top 10 Common Words in True Articles

