FAKE NEWS DETECTION SYSTEM

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Introduction

- The introduction of the WWW and the rapid use of online platforms (such as Instagram, WhatsApp and fb) have made the way for unprecedented levels of information circulation in human history. Customers are looking to create and able to share so much data thanks to the prevailing use of social media sites, but some of it is ambiguous and has no real meaning.

- It is difficult to implement the category of a text article as misleading information or false news. Maybe a specialist in a given area must investigate various areas prior to actually passing judgement on the veracity of such an essay

RELATED WORK

- This section is about previous works of this project Fake News Detector and other Algorithm used to solve a similar problem Using naive Bayes classification, Mykhailo Granik et. al.

- demonstrates a straightforward method for detecting bogus news. As a software system, it was evaluated using a data collection of Facebook news articles. They were gathered from three huge Facebook sites on the right and the left, as well as three significant mainstream political news pages (Politico, CNN, ABC News).

- A classification accuracy of around 74% was attained. False stories are more difficult to classify. Because of the dataset's skewedness, just 4.9 percent of it is bogus news, this may be the reason.

- To handle hundreds of tweets per second in one second, Himank Gupta and his colleagues developed a system that incorporates a variety of machine learning techniques. In the first place, they've amassed a data collection of 400,000 tweets from the HSpam14 project. Afterwards, they describe the 150,000 spam tweets and 250,000 non-spam tweets in further detail, as follows: In addition to the Top-30 words that provide the maximum information gain, they also extracted certain lightweight characteristics from the Bag-of Words model. A 91.65% accuracy rate was achieved, outpacing the previous answer by around 18 percent.

METHODOLOGY

- Data Set loading
- Data Pre-Processing(removing Stop words, Drop duplicates, remove meaningless char from the text.)
- Feature Selection
- Applying Classification and model Construction
- Classifying the new data
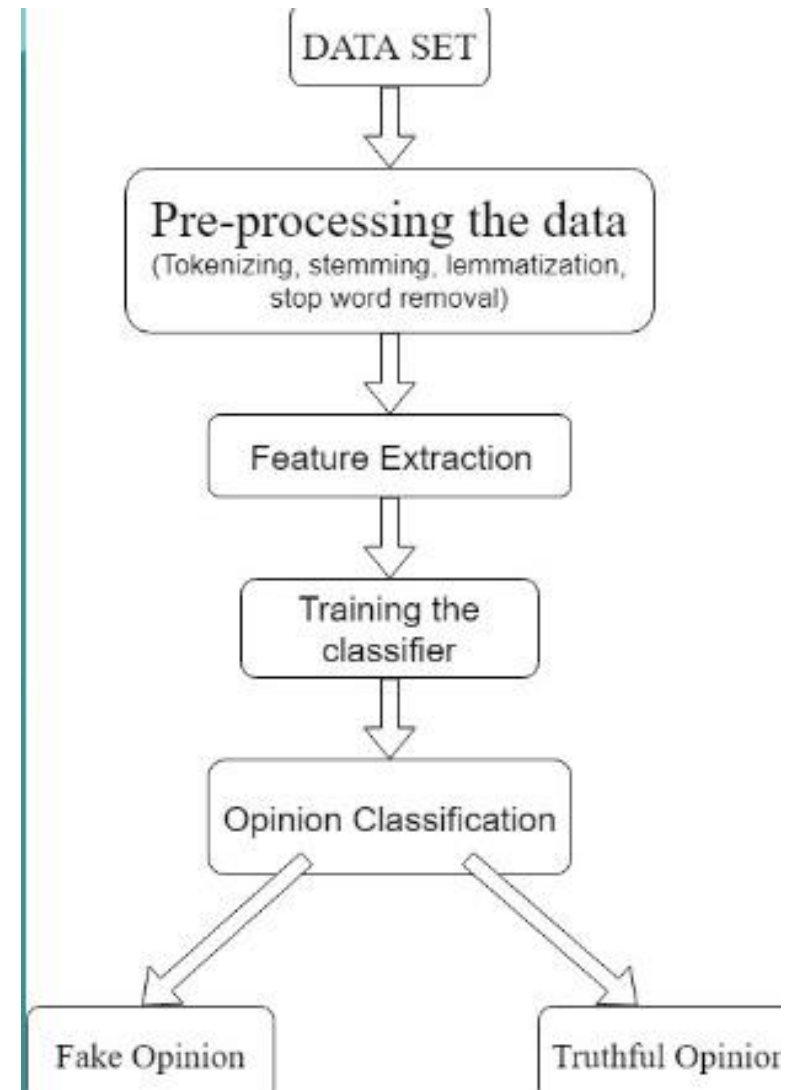
Experimental analysis

- The four currently available techniques are being investigated for use in the project execution. When the outcomes of the four systems described above are analyzed to the proposed model, it is discovered that the reliability amongst some of the top - ranking outcomes is as shown in below slide With the help of several machine learning algorithms the experiment is completed.

Experimental analysis

- The models which we used for testing are:

- Logistic regression

- Naïve bayes

- Decision tree

- Passive aggressive classifier

comparison table

models used	accuracy achieved
Logistic Regression	91.73%
Naive-Bayes	82.32%
Decision Tree	80.49%
Passive-Aggressive Classifier	93.12%

CONCLUSION

- The growing problem of fake news only makes things more complicated and tries to change or hamper the opinion and attitude of people towards use of digital technology.

- We used TF-VECTORIZER and have implemented FAKE NEWS DETECTION MODEL using KNN CLASSIFIER and PA CLASSIFIER.

Social media post

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Thank You