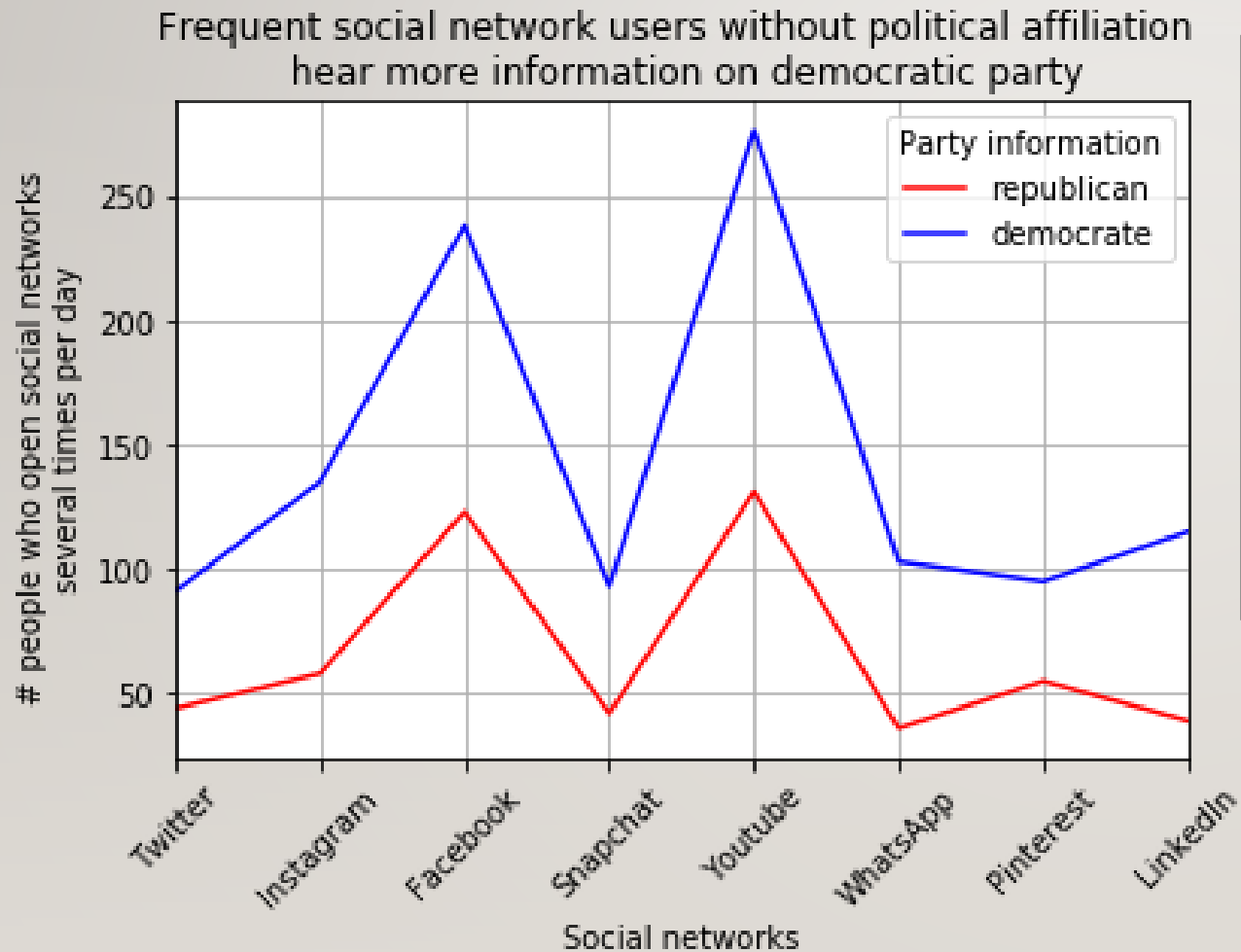


# DIGITAL DEMOCRACY

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BY ANNA TEREBUS

# INSPIRATION



## Data:

Survey of people's attitude towards the Internet,

<https://www.pewinternet.org/dataset/jan-3-10-2018-core-trends-survey/>

Is it true that there are so much more tweets from Democrats???

# GOAL

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- Create evaluation tool for number of political supporters of political candidates in the countries where there are binary political preferences.
- Public opinion monitoring: which group expresses more explicit reaction to current political and social events: elections, new laws, new policies etc.
- Future applications: study the effect of social networks to political decision making in elections, find if social network activity affects the elections results.

# TRAINING DATA: 17,298 TWEETS

## Tweets from Democrats



## Tweets from Republicans



# MODEL

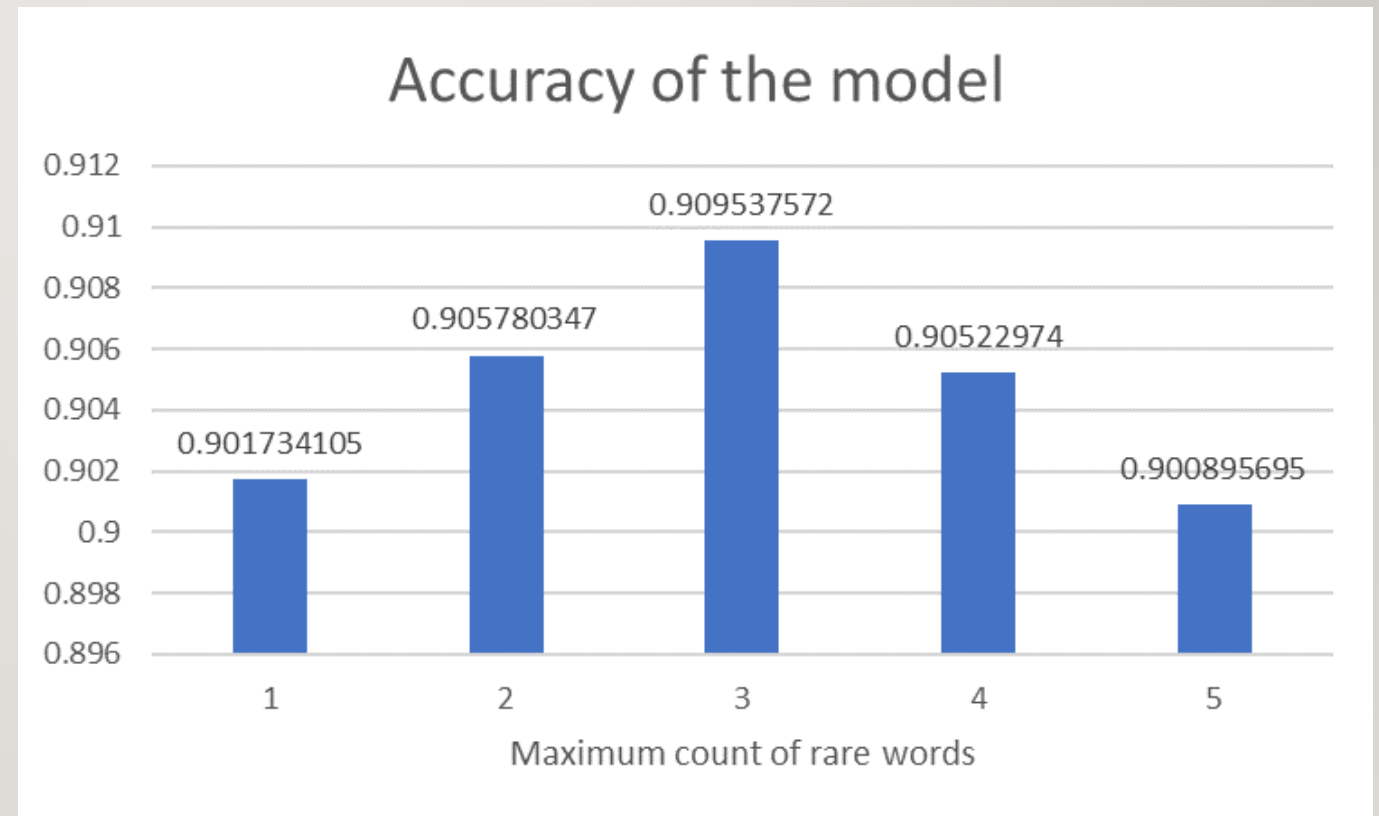
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- Text processing: cleaned up the raw tweet text using the nltk package.
- Eliminate the rare words.
- Feature construction: constructed bag-of-words feature vectors and training labels from the processed text of tweets.
- Classification:
  - Support Vector Machine

# MODEL ACCURACY IMPROVEMENT WITH ELIMINATING RARE WORDS

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The best accuracy is achieved when we eliminated the words, which occurred three and less times



# PREDICTION OF POLITICAL AFFILIATIONS OF PEOPLE WHO TWITTERED IN THE PAST TWO WEEKS

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## #Trump

- 1,355 Democrats,
- 593 Republicans.

## #abortion

- 2,089 Democrats,
- 665 Republicans.

## #GameOfThrones

- 192 Democrats,
- 63 Republicans.

## #Coffee

- 19 Democrats,
- 35 Republicans.