DIGITAL DEMOCRACY

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INSPIRATION

Frequent social network users without political affiliation hear more information on democratic party
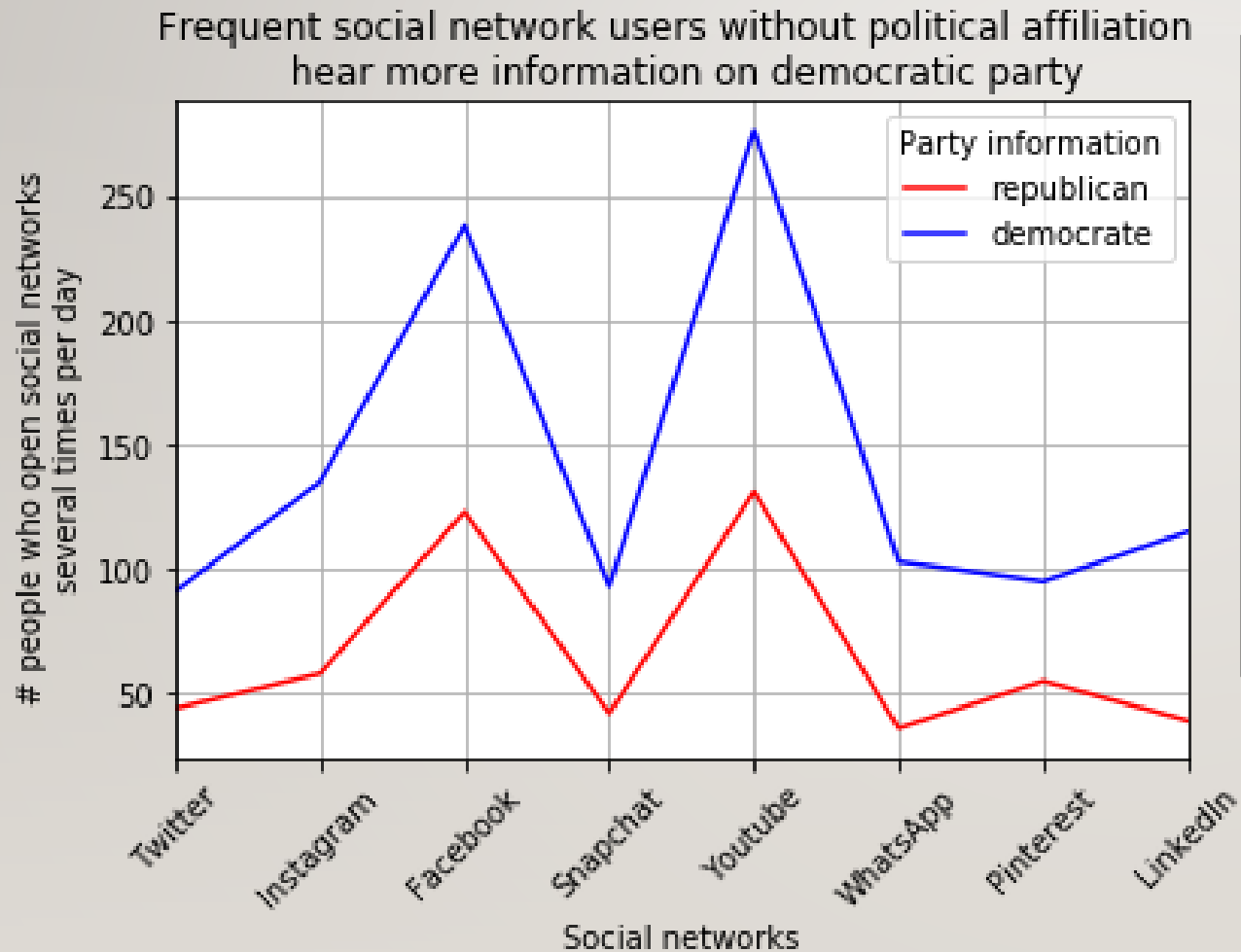
Data:
Survey of people's attitude towards the Internet

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

- 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 election results.

TRAINING DATA: 17,298 TWEETS

Tweets from Democrats

Tim Kaine ✓
@timkaine

Hillary Clinton ✓
@HillaryClinton

The Democrats ✓
@TheDemocrats

Tweets from Republicans

Vice President Mike Pence ✓
@VP

**Donald J. Trump** ✓
@realDonaldTrump

GOP ✓
@GOP

MODEL

- 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

The best accuracy is

achieved when

we eliminated words that

occurred three and

less times

Accuracy of the model
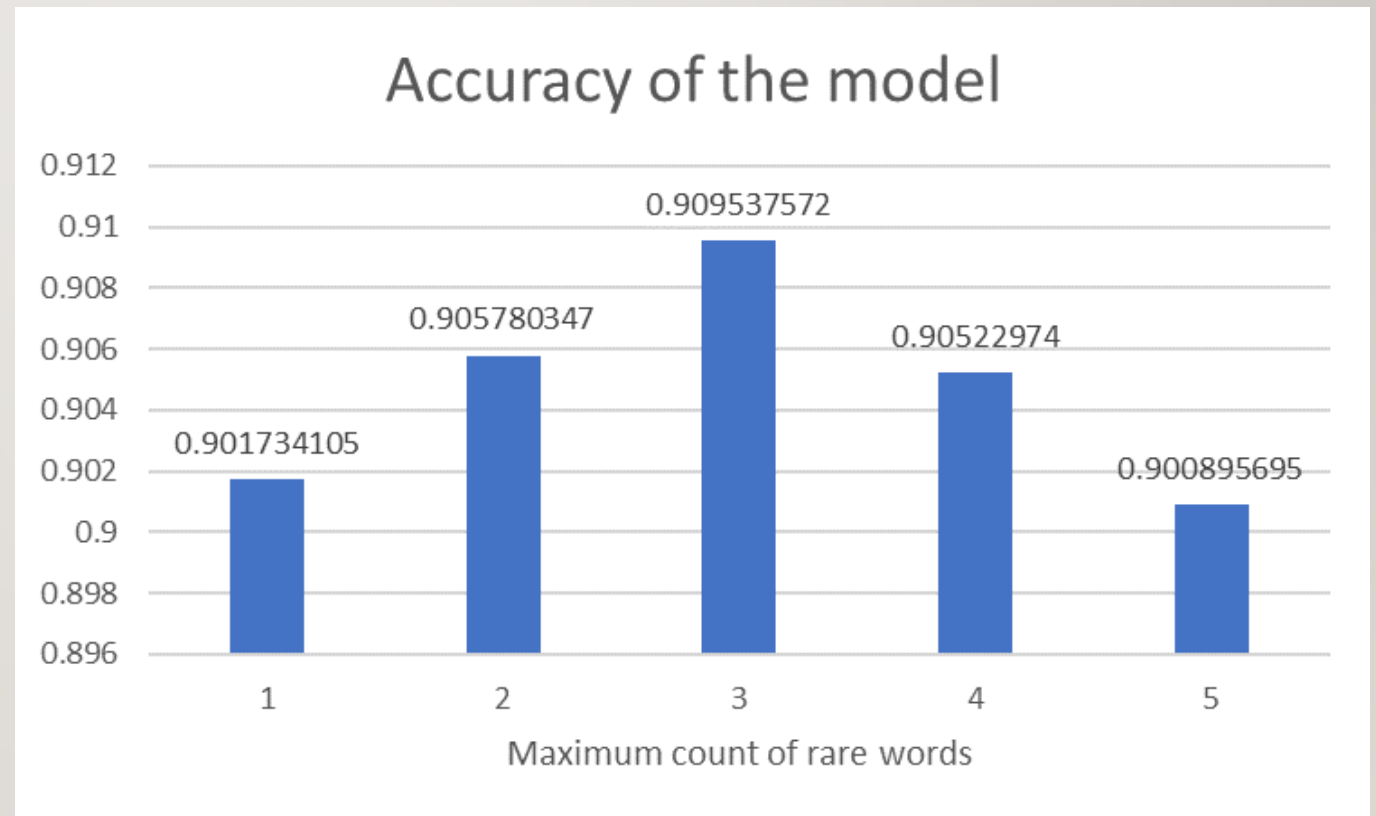
PREDICTION OF POLITICAL AFFILIATIONS OF PEOPLE WHO TWEETED IN THE PAST TWO WEEKS

#Trump

- 1,355 Democrats,

- 593 Republicans.

#abortion

- 2,089 Democrats,

- 665 Republicans.

#GameOfThrones

- 192 Democrats,

- 63 Republicans.

#Coffee

- 19 Democrats,

- 35 Republicans.