Google and Apple Brand Sentiment on Twitter

By Eric Stone

Goal

To uncover user sentiment regarding Apple and Google products on Twitter by utilizing Natural Language Processing (NLP)

Methodology

Dataset

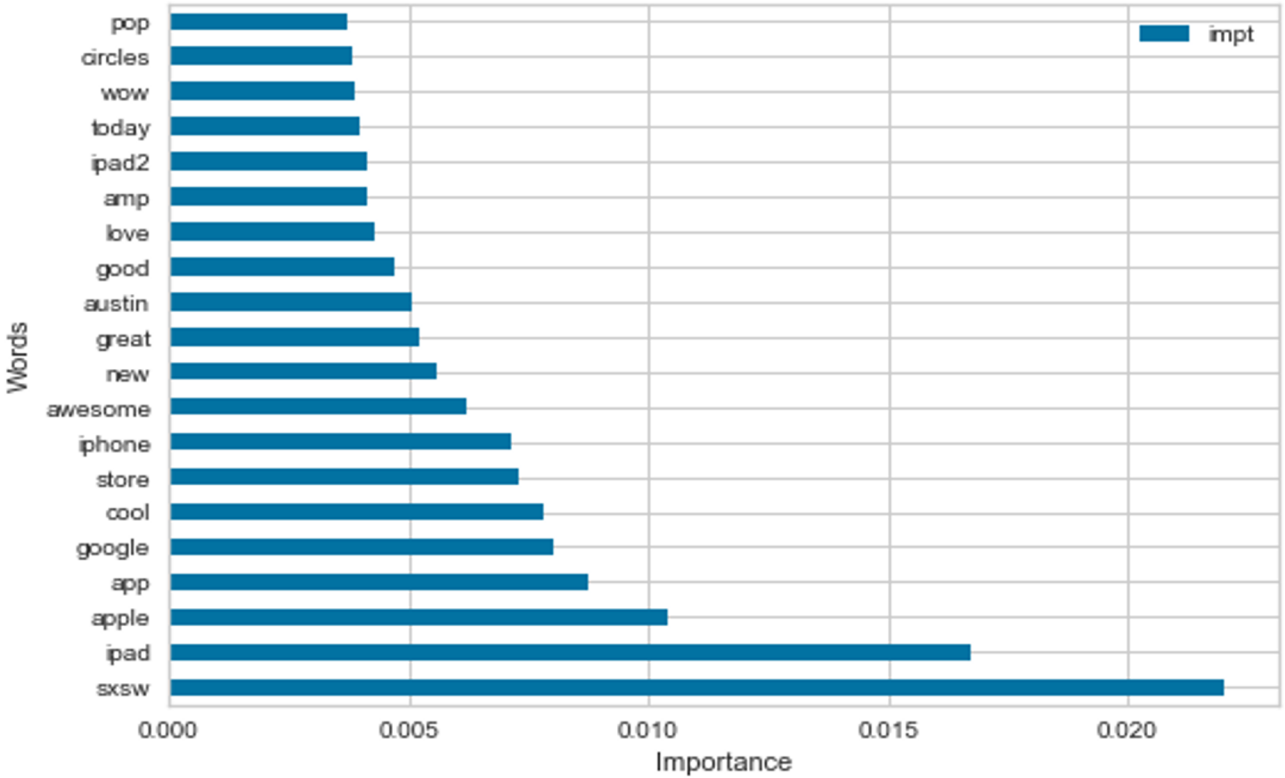
- Over 9000 tweets
- Categorized as positive sentiment, negative sentiment, or couldn’t tell

Used a Series of Modeling Techniques and Compared Results

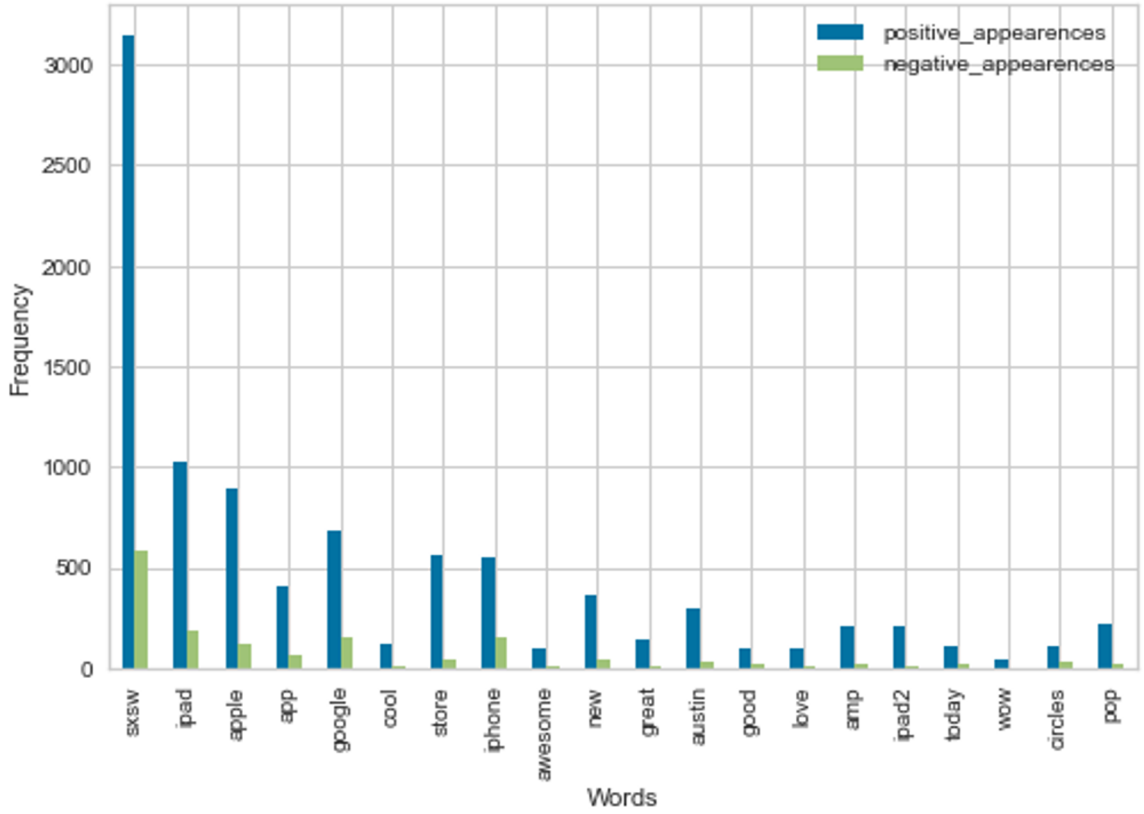
- Random Guess
  - ~33% Accurate
- Simple Scoring with Predetermined List of Words
  - 53% Accurate
- Logistic Regression
  - Between 64% and 67% Accurate
- Decision Trees
  - 57% Accurate
- Random Forest Classification
  - Between 66% and 68% Accurate

Results

Most Determinative Words



Frequency of top 20 words in positive and negative tweets



Brands With Clearest Sentiment

iPad

- 1020 Positive Tweets
- 191 Negative Tweets

- 894 Positive Tweets
- 116 Negative Tweets

Google

- 680 Positive Tweets
- 148 Negative Tweets

Conclusion and Next Steps

Conclusion

- People love their tech!
- iPad, Apple, and Google are brands with strong correlation with positive sentiment in tweets

Further Steps

- Further development with more diverse types of models
- Larger dataset and/or resampling
- Different methods to vectorize tweets