

# NLP: Sentiment- Analysis

Analysis of Tweets About Apple and Google

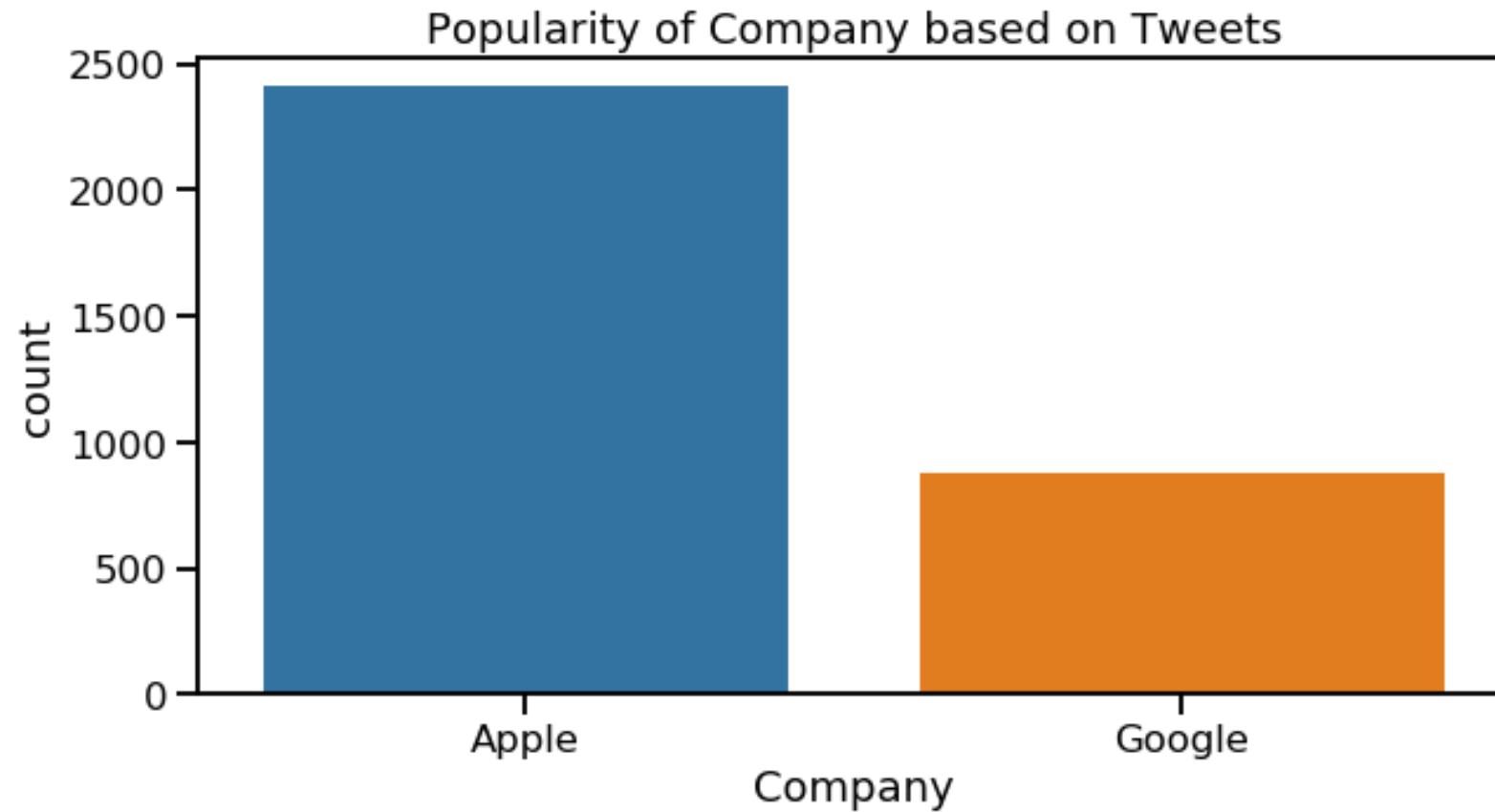
Jamaal Smith

Flatiron School

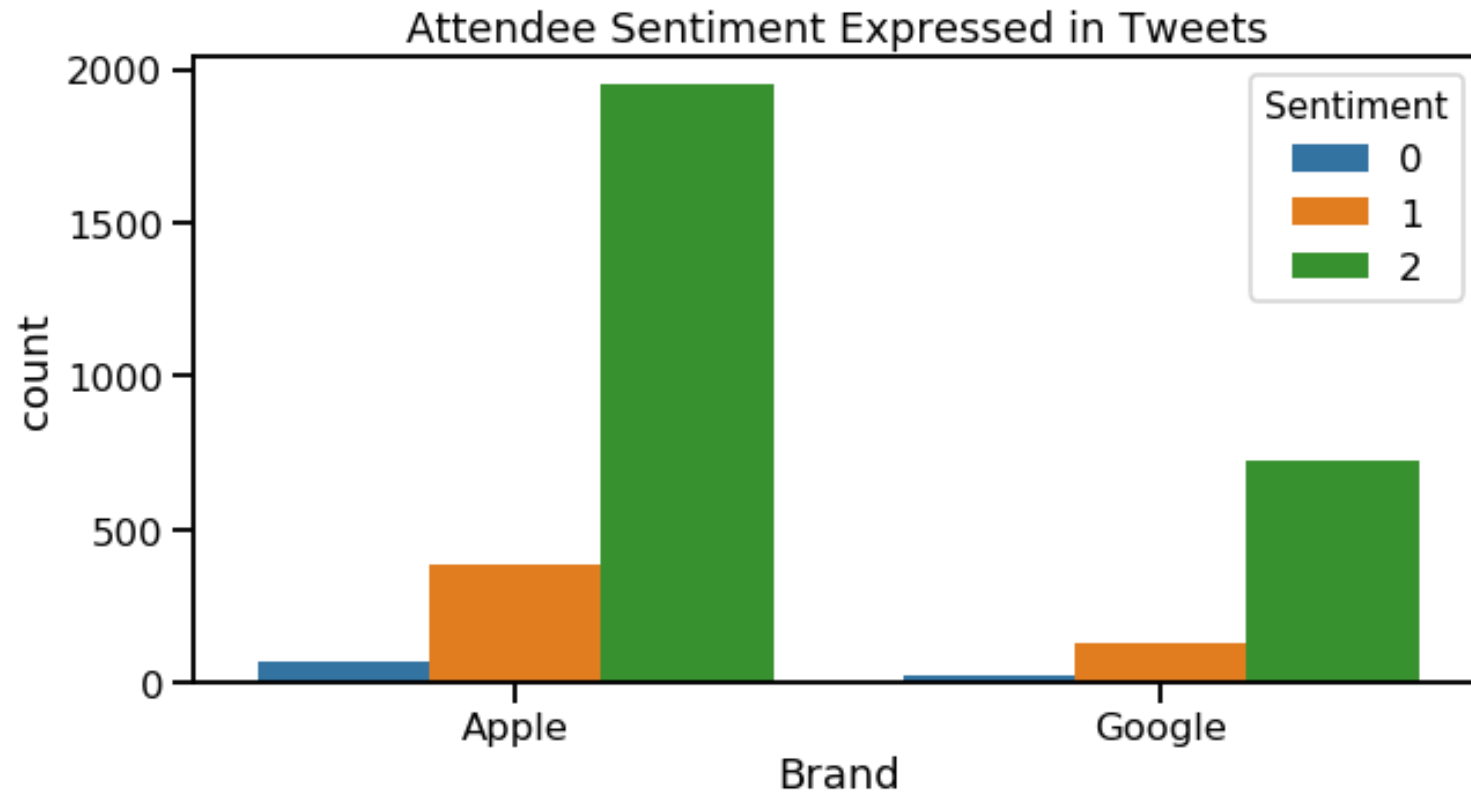
# Executive Summary

- Dataset of roughly 9000 tweets were analyzed to deem sentiment related to Apple and Google
- Tweets appear to be from 2011 SXSW event in Austin
- Positive/Negative Sentiment will provide insight into public's thoughts of products/technologies presented by both companies

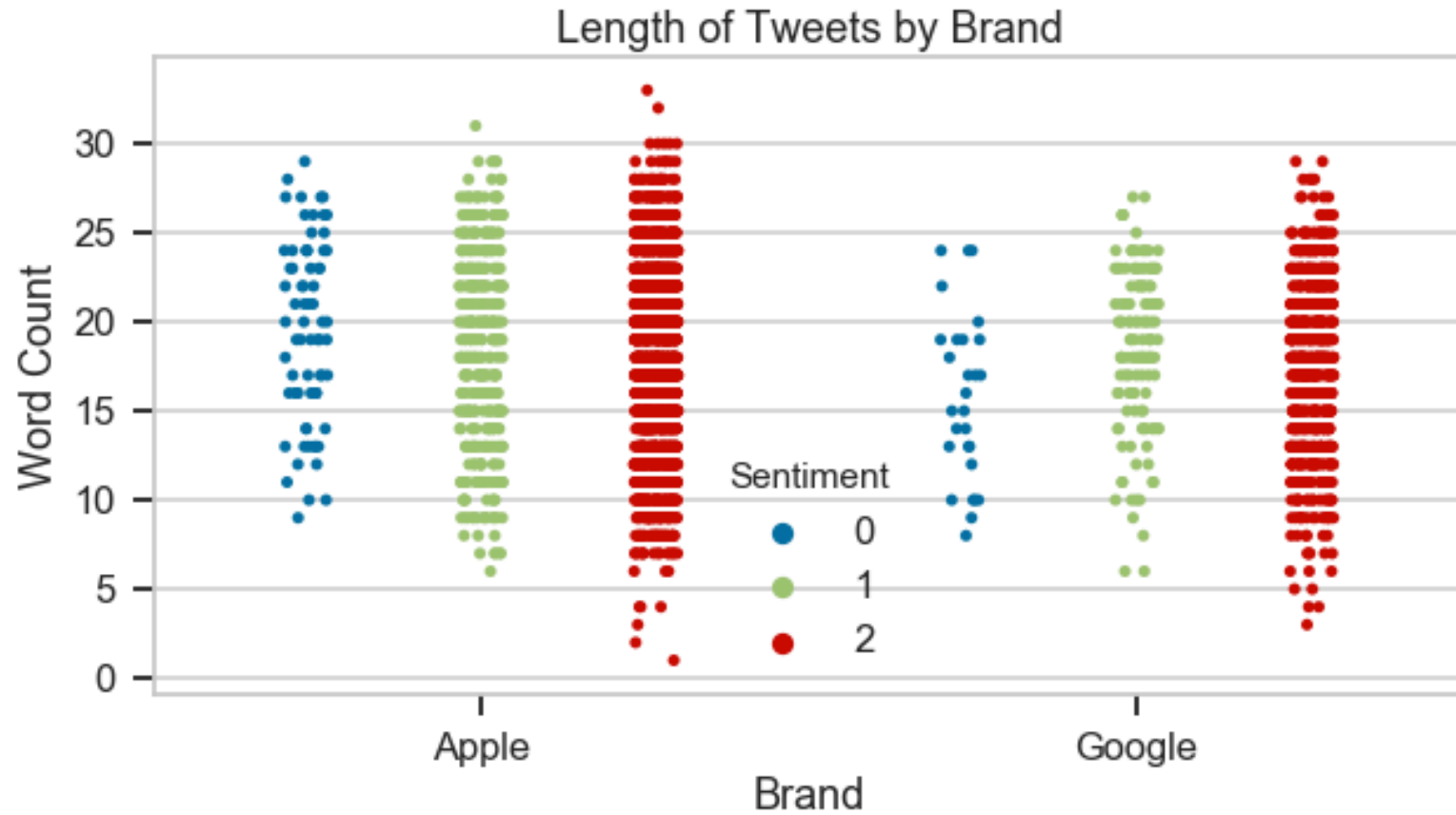
# Apple's Twitter Presence was Notable



# Distribution of Sentiment by company in tweets



# Sentiment Distribution Based on Tweet Word Count

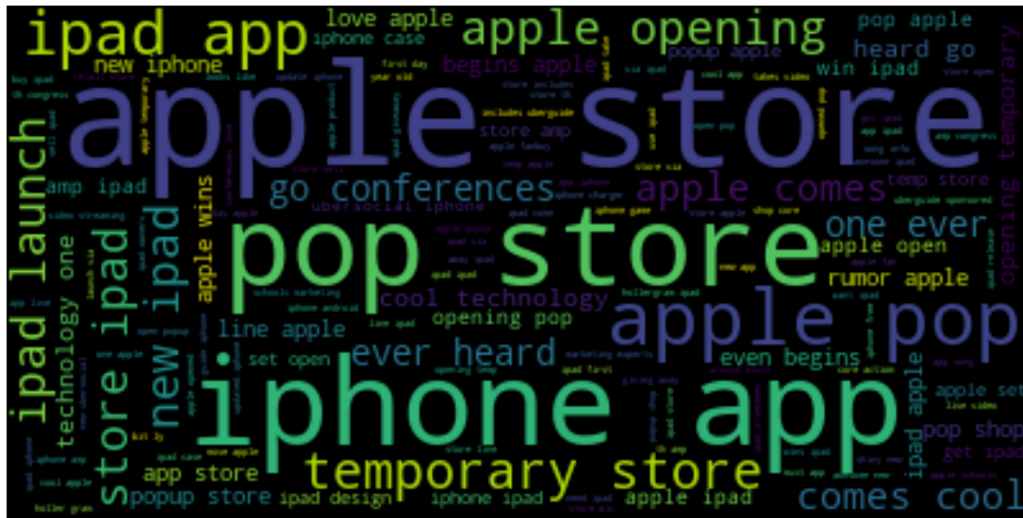


# Common Phrases Expressed in Tweets

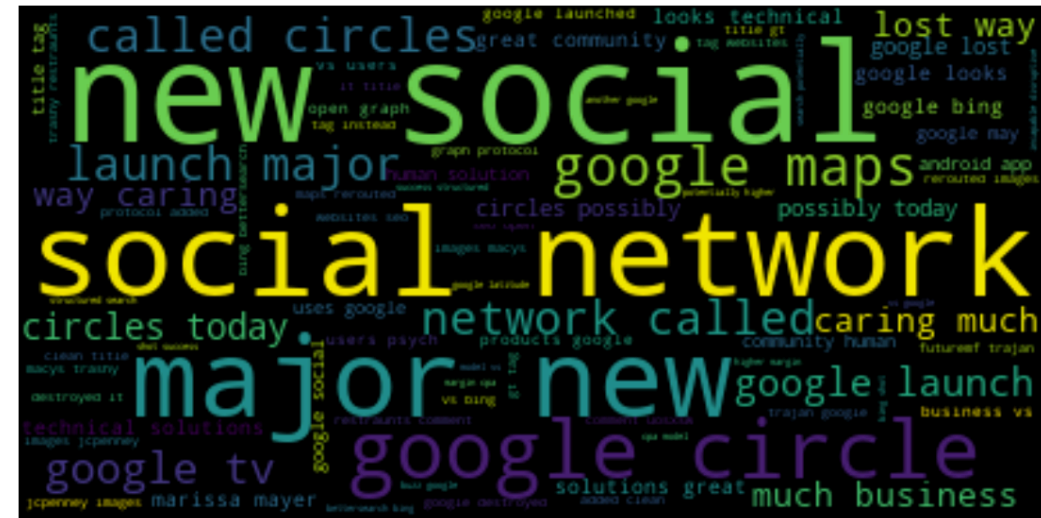


# Common Phrases present in positive sentiments about both companies

# Apple

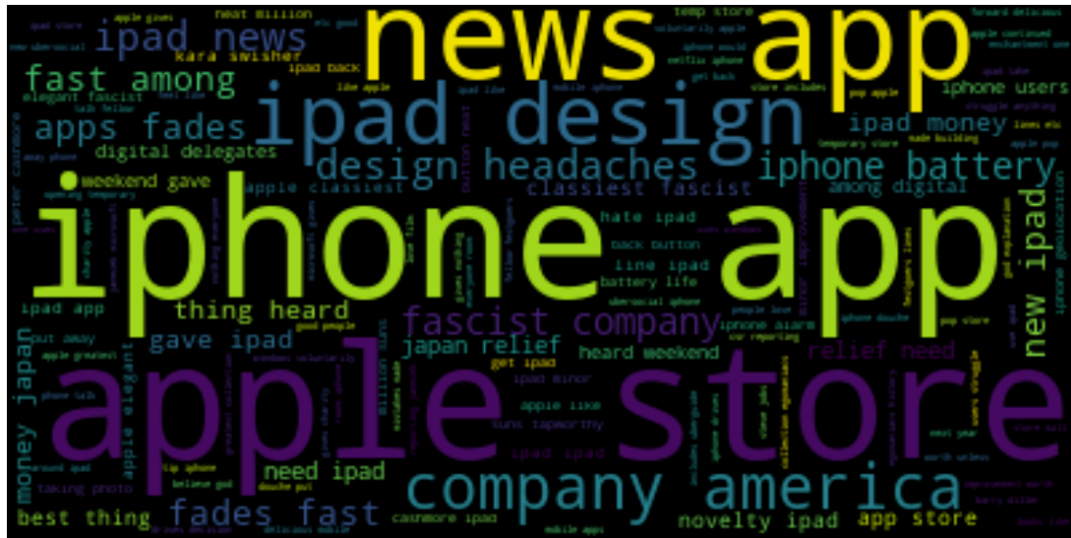


Google



# Common phrases present in Negative sentiments about both companies

Apple

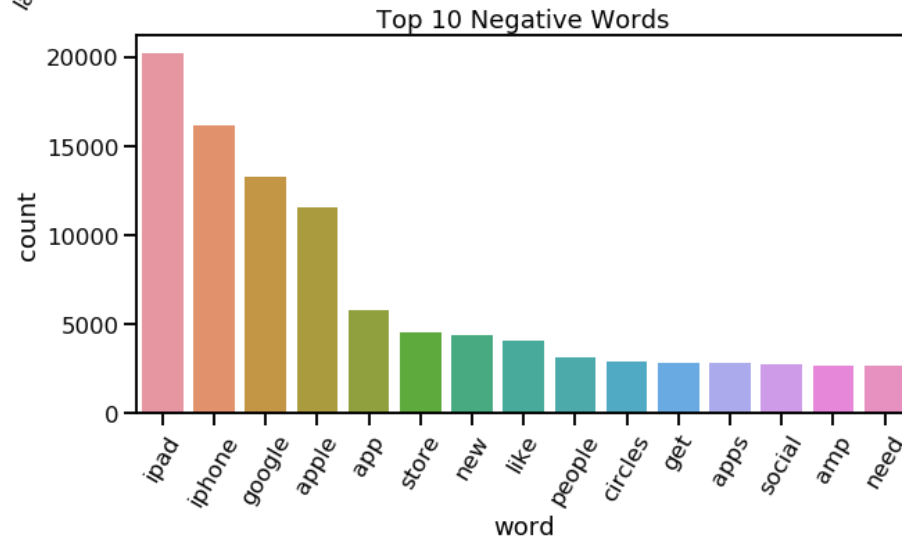
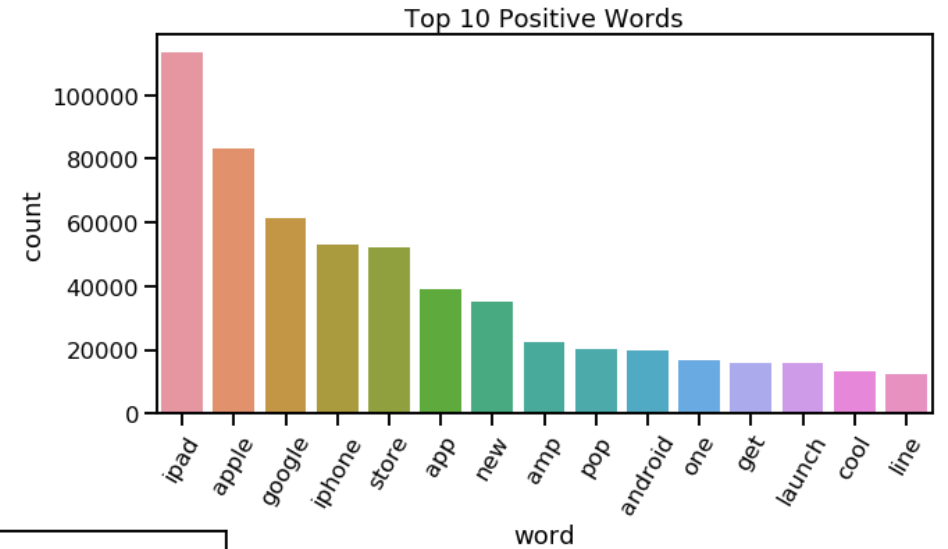
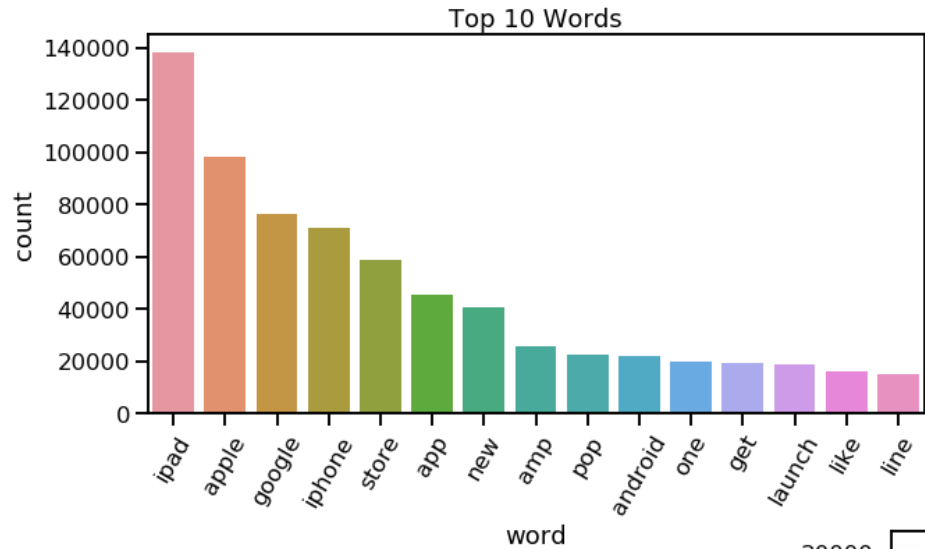


Google

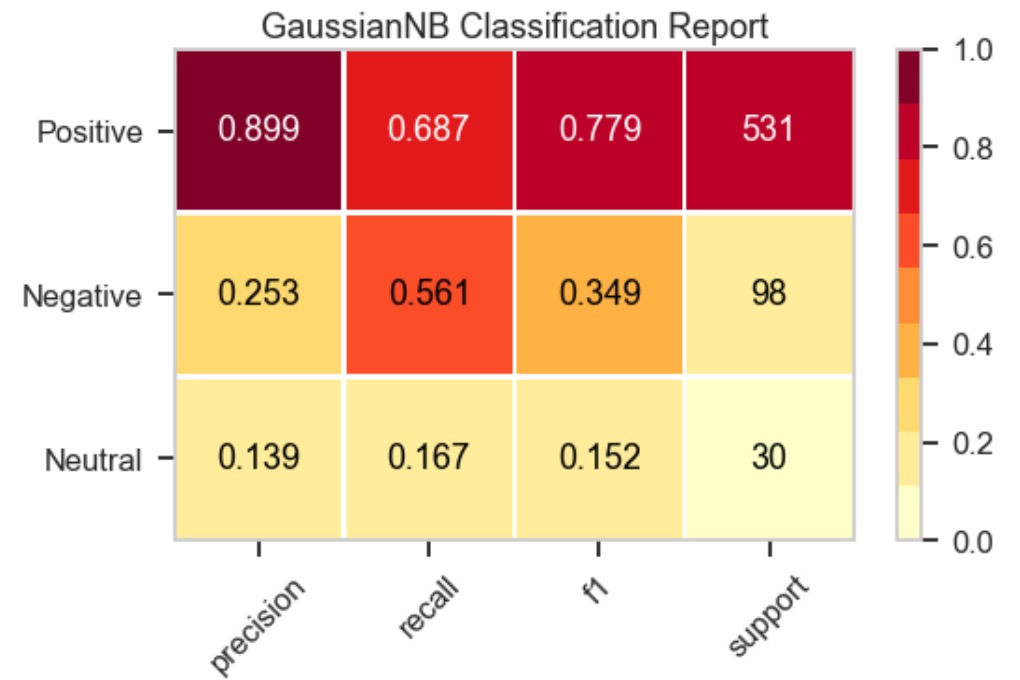
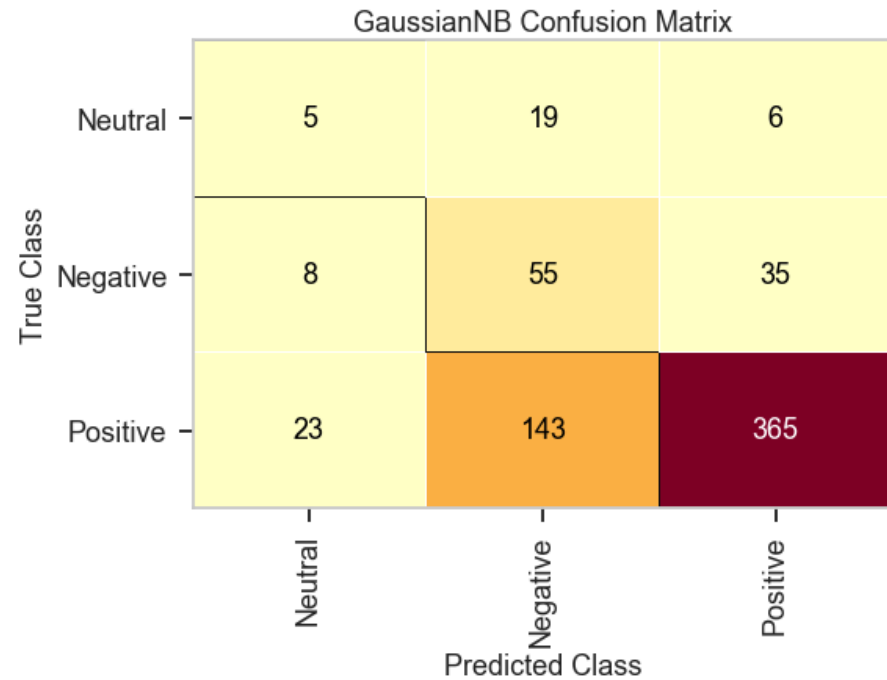




# Common words during 2011 SXSW



# Predicting Sentiment Based on Tweets Analyzed



## Recommendations

- For more general sentiment analysis on each company, data prior to or after 2011 event is preferable. Current analysis really speaks to public feelings about iPad2 launch vs. Google offerings
- Data set with more training data around sentiment and brand would improve model accuracy. Final data set after preprocessing contained 3,291 tweets
- Neural Network might offer better accuracy and prevent against undercount in Negative predictions

# InSights from tweet analysis

- Sentiment Analysis of Google words shows subjectivity of Negative vs. Positive. People viewed the same thing and had different responses to the same stimuli
- Apple and Google have two target audiences:
  - Apple focused on driving public interest in iPad2
  - Google focused on showing public the future of technology with its offerings
- People are polarized on Google. They either are fans of the company or harsh critics. Apple has more neutral sentiments coupled with more overall positivity
  - Apple's positivity possibly skewed by product launch. Negative items spoke to issues with daily product use such as iPhone battery life
  - Google's negative tweets often in comparison with Apple – comments such as Google lost suggest that Apple loyalists could have issued tweets or individuals were impressed with Apple's marketing campaign at SXSW

# Thank You

- Thank you for your time today and for allowing me to assist your organization with it's market research needs.
- At this moment, I would also like to thank my colleagues who assisted me along the way with completing this analysis.
- I look forward to following up with further analysis as discussed on the previous slide and any other areas that you would like additional color on moving forward.