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# Tweet NLP Analysis

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Flatiron School 2024

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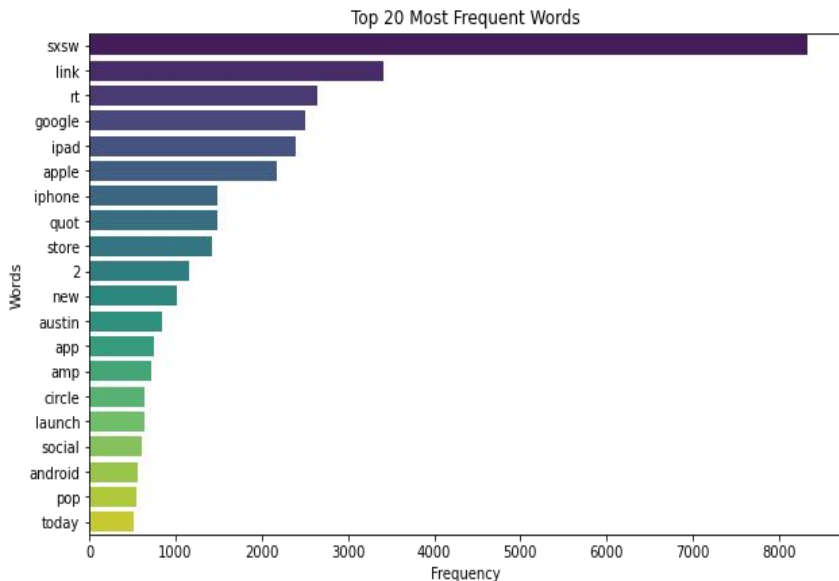
# Business Overview

Brand	# Of Tweets
iPad	2346
Google	2289
Apple	1764
iPhone	934
Android	505

- Tweet Analysis
    - **SXSW-2011**
    - Multi-classification
      - **Sentiment** in Tweets
  - Objectives
    - Better predict Sentiment of Tweets
    - Determine relative opinion of **brands** at SXSW
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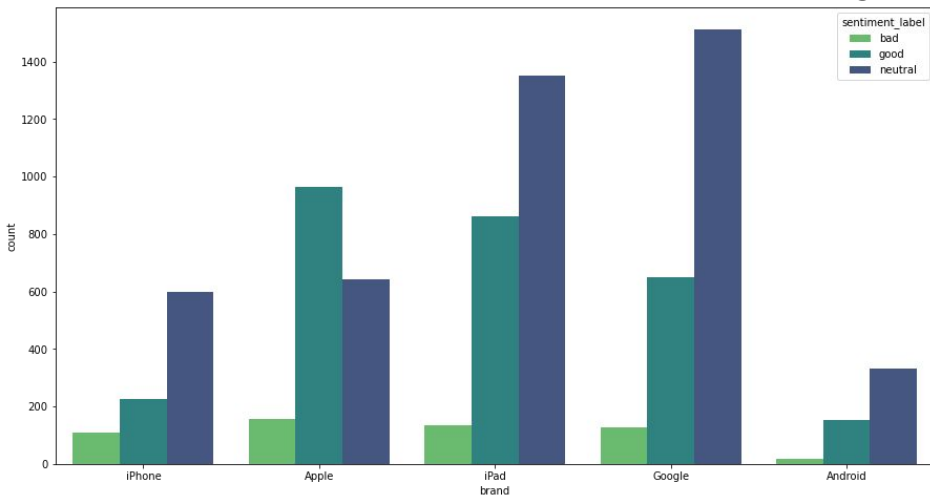
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# Data Overview

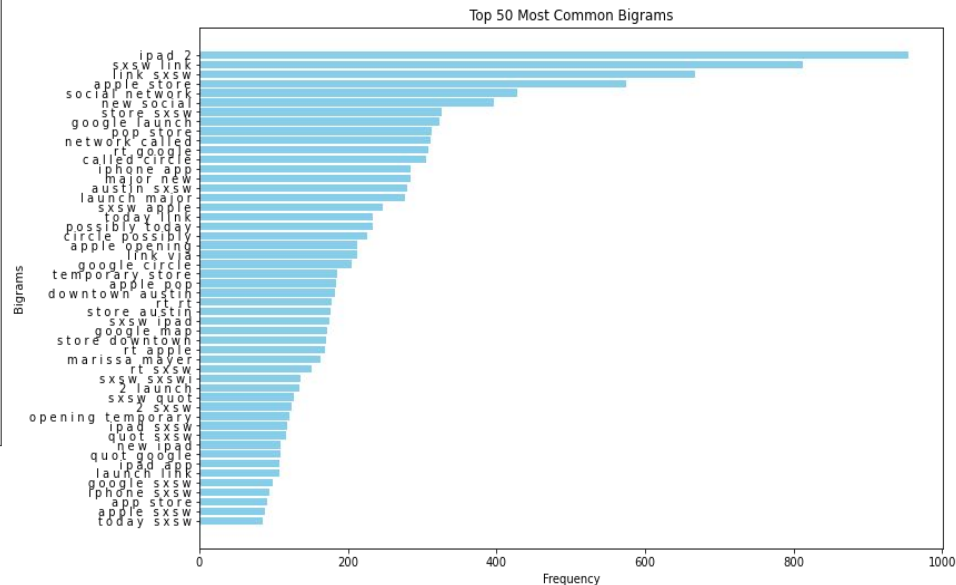


- 8721 SXSW Tweets
  - Sentiment rating
    - Negative, Neutral, Positive
  - Brand relevance
    - iPad, iPhone, Apple, Google, Android
  - nGrams

# Data Analysis

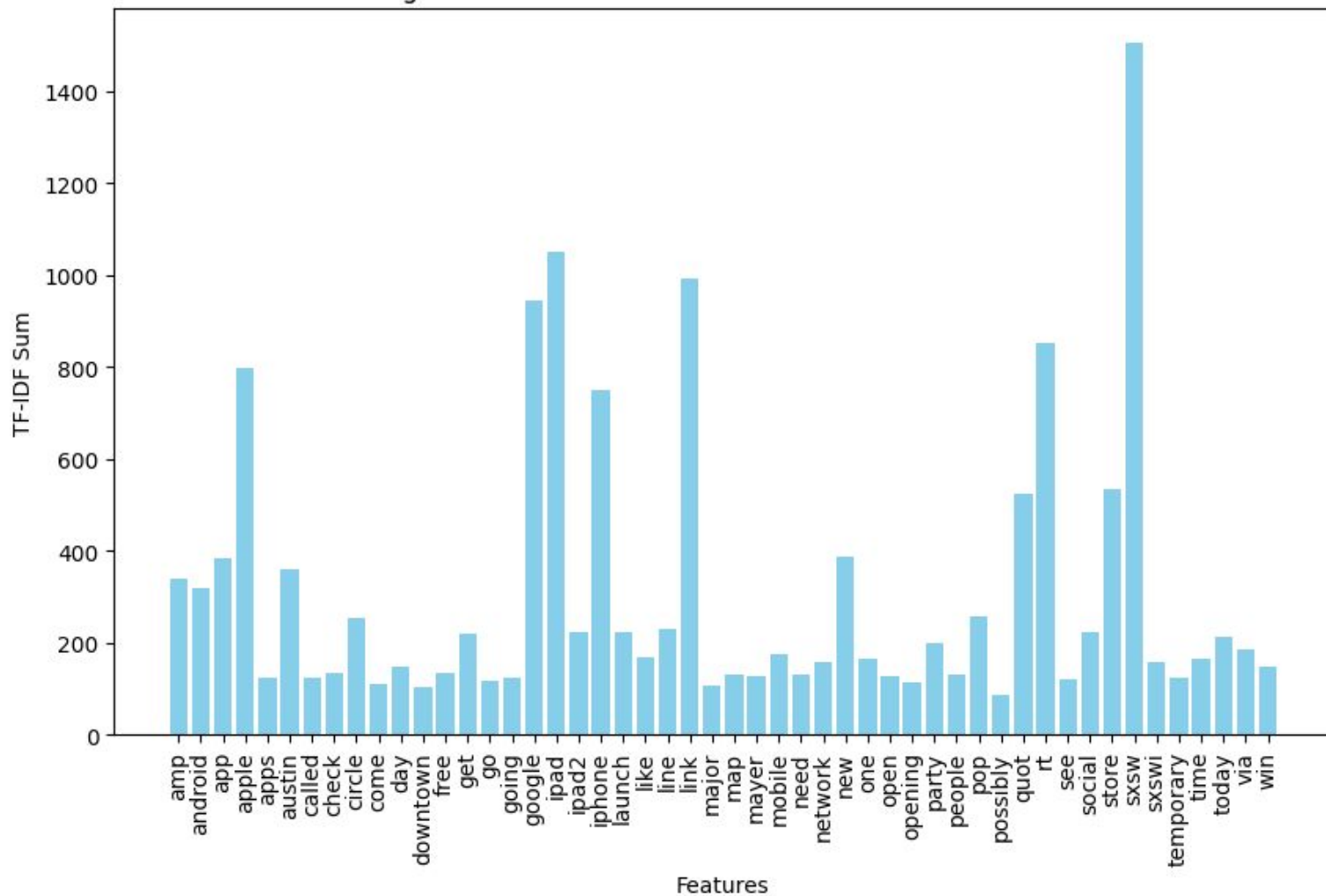


**\*\*Sentiment for each brand. Notice Neutral is the most common rating for each brand except Apple**



**\*\*Bigrams-pairs of commonly occurring words**

# Histogram of TF-IDF Values for the 50 Most Common Words



\*\*TF IDF-Term Frequency, Inverse Document Frequency. A measure of importance of a specific word in the corpus, adjusted for the fact that the word occurs commonly in that corpus.

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# Classification Modeling

	Baseline	Improved
Accuracy	59%	69%
Precision	58%	68%
Recall	59%	69%

- Great improvements to our baseline model via Ensemble Methods
  - 3 class, classification guessing=33%
  - Precision-tells us how many of the predicted positive instances were actually correct
  - Recall-Tells us how many of the actual positive instances were correctly identified
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Brand	Count	Frequency
iPad	2346	30%
Google	2289	29%
Apple	1764	22%
iPhone	934	12%
Android	505	6%

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## Recommendations

- ***Apple*** was the only brand with more positive tweets than any other sentiment
  - ***iPad*** and ***Google*** were the most talked about brands
  - ***Android*** did not draw much attention
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# Additional Questions

Thank you!

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The Flatiron School

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