



Sentiments towards Apple @ SXSW Conference 2011

Identification of Twitter Users With Neutral vs Non-Neutral Opinions towards Apple

By: Brandon Menendez Nazar Mohl June 24, 2022





Agenda

- Big Picture
- Key Finding
- Data Preprocessing and Analysis
- Model Results
- Recommendations







Big Picture

Stakeholder:

Apple Social Media Advertising Team

Business Need:

- Model that analyzes the sentiment of tweets.
- Identify users for targeted ads (Only neutral tweets).
- Not interested in negative or positive tweets.





Executive Summary

- Importance of Twitter in reaching customers
 - 80.9 Million Users in US
 - 34% of Americans who use Twitter earn \$75k+
 - \$0.50 to \$2.00 per click
- Created model to identify "low hanging fruit"

Able to correctly identify 69% of target customers





Exploratory Data Analysis (EDA)

• SXSW Conference 2011 Data from CrowdFlower via data.world.

Over 9,000 Tweets – used around 5,200 (Apple only)

• Previously generated sentiments





Data Assessment

Ratings Assessment:

Positive?

• RT @mention Don't worry you guys, found an iPhone charger. WHAT'S THE DEAL WITH HIPSTERS AND BEARDS, RIGHT?!?! #sxsw

Apple?

 Back in the big apple! Need to wean off my new foursquare addiction thanks to #sxsw

Negative?

Bad news update: the pop-up Apple Store is out of iPads! Not sure if they
will have more by tomorrow. #SXSW





Preprocessing - Cleaning

Removed:

- Null records, noisy characters, irrelevant/common words
- @mentions, links (Kept hashtags)

Examples:

%÷¼ We love 2 entertain you%Û_Please don%Ûªt be grateful! %÷_ {link} ‰ã_ #edchat #musedchat #sxsw #sxswi #classical #newTwitter

@teachntech00 New iPad Apps For #SpeechTherapy And Communication Are Showcased At The #SXSW Conference http://ht.ly/49n4M #iear #edchat #asd





Preprocessing – New Features

Created 2 ratings categories:

- Neutral rating
- Aggregate of Positive or Negative rating

Examples:

- The best! RT @mention Ha! First in line for #ipad2 at #sxsw "pop-up" Apple store was an event planner #eventprofs #pcma #engage365
- @sxsw I hope this year's festival isn't as crashy as this year's iPhone app. #sxsw
- Does your #SmallBiz need reviews to play on Google Places...We got an App for that..{link} #seo #sxsw





Analyzed:

- Retweets
- Emojis

Calculated:

- Frequency / distribution of words
- Ratio of capital to lowercase letters
- Count of "!" and "?" characters









Modeling Process / Evaluation metrics

Models Applied:

- Decision Tree
- Multinomial Naive Bayes

Evaluation metrics

- Recall Provides Insight into False Positives
- Precision Provides Insight into False Negatives





Model Results

• Better model: Multinomial Naive Bayes

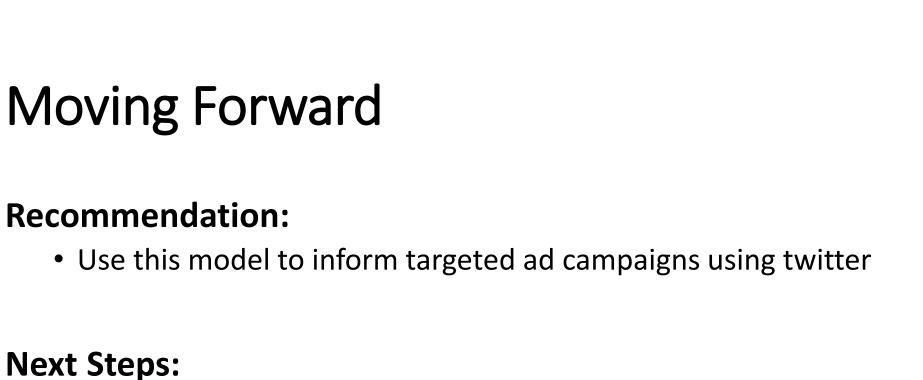
• Recall: 69%

• 69% of target customers can be correctly identified

• Precision: 63%

• 63% of budget is correctly applied





Recommendation:

Next Steps:

- Examine retweets
- Emoji analysis
- Sentiments on individual products/services





Q & A

Thank You!

Brandon Menendez:

bmenendez94@gmail.com
http://linkedin.com/in/brandon-menendez/
http://github.com/brandmend

Nazar Mohl:

https://github.com/NazarMohl https://www.linkedin.com/in/nazar-mohl/ nazar.mohl@gmail.com