



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%Û^t 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:

- ## Calculated:

- [illegible]



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



Moving Forward

Recommendation:

- Use this model to inform targeted ad campaigns using twitter

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