

Twitter Sentiment Analysis

Python

Tweepy | TextBlob | Twitter API

src: <http://www.ijcaonline.org/research/volume125/number3/dandrea-2015-ijca-905866.pdf>

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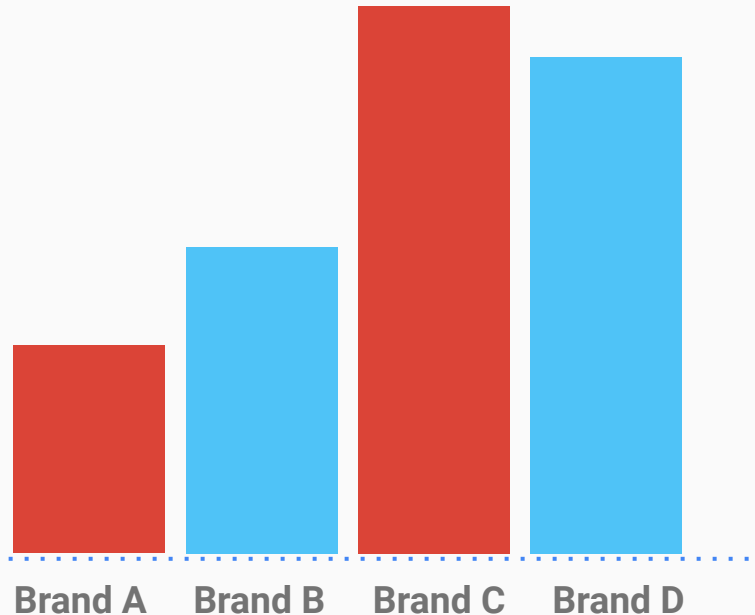


Sentiment Analysis - I

Sentiment Analysis is the process of ‘computationally’ determining whether a piece of writing is positive, negative or neutral. It’s also known as **opinion mining**, deriving the opinion or attitude of a speaker.

Sentiment Analysis - II

Sentiment analysis can also be used to compare any queries or determine overall sentiment based on the public opinion on social media.



Why Sentiment Analysis?

- **Business:** In marketing field companies use it to develop their strategies, to understand customers' feelings towards products or brand.
- **Politics:** keep track of political view, to detect consistency and inconsistency between statements and actions at the government level. It can be used to predict election results as well!
- **Public Actions:** Sentiment analysis also is used to monitor and analyse social phenomena

Project Summary

We take user input for a query, fetch tweets for that keyword/s and tag each of the tweet as positive or negative to estimate the general sentiment.

Working of the project

- **Authentication**

to fetch tweets
through Twitter API

- **get_tweet**

to fetch tweets
from Twitter API
for a query

- **tweet_sent**

estimate
sentiment
polarity for the
fetched tweets

- **Take query from user**

in form of string for
querying the Twitter

- **clean_tweet**

to remove links
or special
characters

An aerial photograph of the New York City skyline at dusk. The sky is a mix of dark blue and orange, with scattered clouds. The city is densely packed with skyscrapers, many of which are illuminated with lights. The Empire State Building is prominent in the center, with its top lit in red and green. The Hudson River is visible on the right side of the image.

Libraries

(and how they're used)

Tweepy

for accessing the Twitter API

Tweepy library is used to authenticate user for accessing the Twitter API

We create an instance of the OAuthHandler type and pass the parameters:

1. Consumer Key
2. Consumer Secret
3. Access Token
4. Access Token Secret

TextBlob

for evaluating a tweet and
analysing it's sentiment

TextBlob is a Python library for processing textual data.

First we call **clean_tweet** method to remove links, special characters, etc.

Then, as we pass **tweet** to create a **TextBlob** object.

Further, the TextBlob library

1. tokenizes the tweet
2. Remove stopwords from the tokens
3. assigns it a polarity value ranging from -1.0 to 1.0

thank you!