Sentimental Analysis on Jallikattu

Jallikattu

- Jallikattu (or sallikkattu), also known as eru thazhuvuthal and manju virattu, is a traditional spectacle in which a Bos indicus bull, such as the Pulikulam or Kangayam breeds, is released into a crowd of people, and multiple human participants attempt to grab the large hump on the bull's back with both arms and hang on to it while the bull attempts to escape. Participants hold the hump for as long as possible, attempting to bring the bull to a stop. In some cases, participants must ride long enough to remove flags on the bull's horns.

Idea Evolution

- In recent days, many protests went both in favour of and against Jallikattu and people tweeted a lot of posts in all social-networking sites like Facebook, Twitter, etc…
- So we started retrieving tweets related to Jallikattu from Twitter and started analysing them to arrive at a decision about whether most people are against or in support of Jallikattu.

Tools Used

- Software Used → **RStudio**
- Programming Language → **R Programing Language**
- API / Package used → **twitteR API/Package**

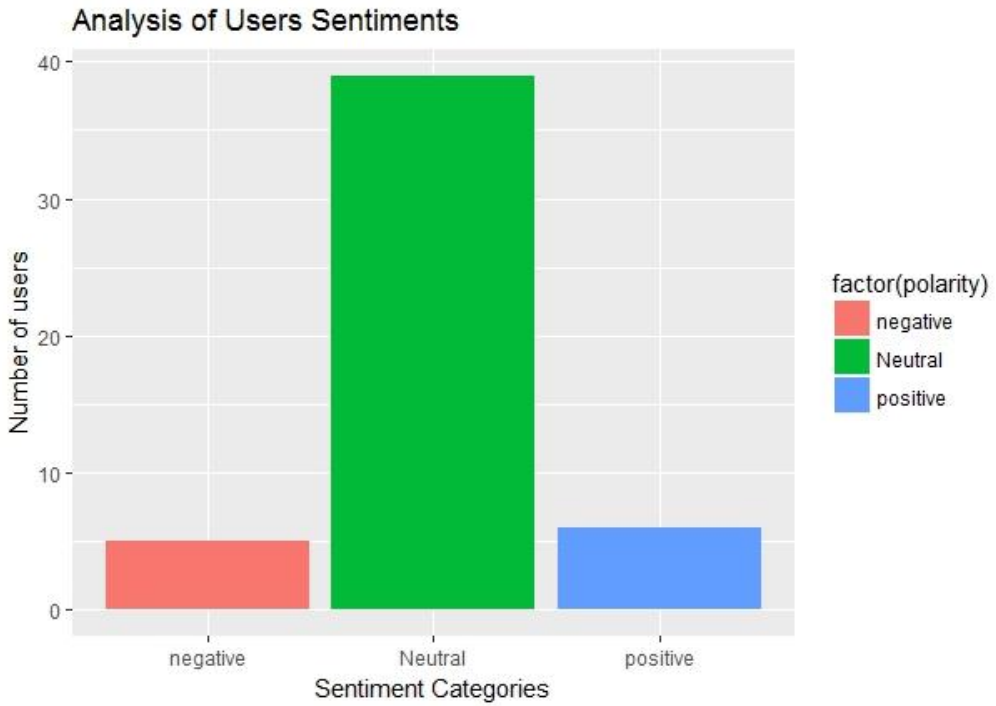
Implemented Algorithms

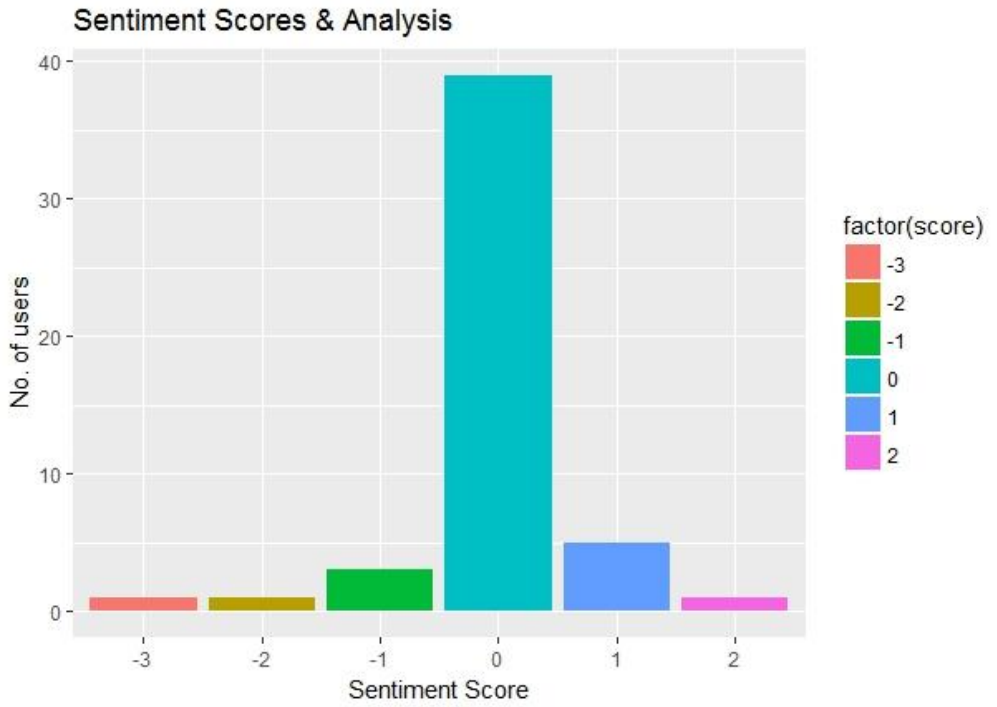
- Hu and Liu Opinion Lexicon
- Naïve-Bayes Classifier Algorithm
- Emoticon sensing and analysis

Hu and Liu Opinion Lexicon

- Taken a list of positive and negative words or sentiments.
- Compares the retrieved tweets with these emotions.
- Assigns scores and polarity based on the matches and comparisons.

Graphs

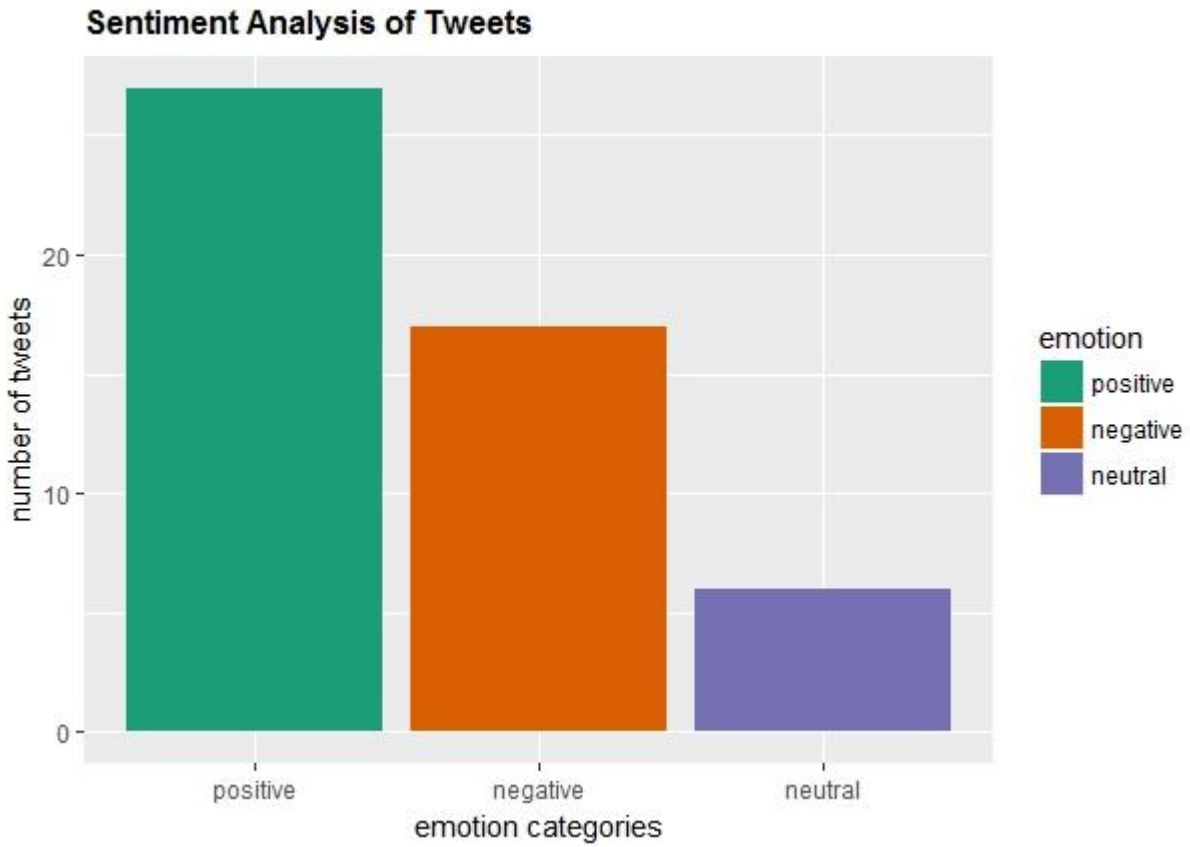

Analysis of Users Sentiments
Number of users
40
30
20
10
0
negative
Neutral
positive
Sentiment Categories
factor(polarity)
negative
Neutral
positive


Sentiment Scores & Analysis
No. of users
40
30
20
10
0
-3
-2
-1
0
1
2
Sentiment Score
factor(score)
-3
-2
-1
0
1
2

Naïve-Bayes Algorithm

- Converts the retrieved tweets into a string.
- Removes the punctuations, emojis, etc… and also converts them lower case.
- Removes additional details like the user details, taggings, references, etc…
- Classifies these tweets completely on the concept of Naïve-Bayes Classifier.

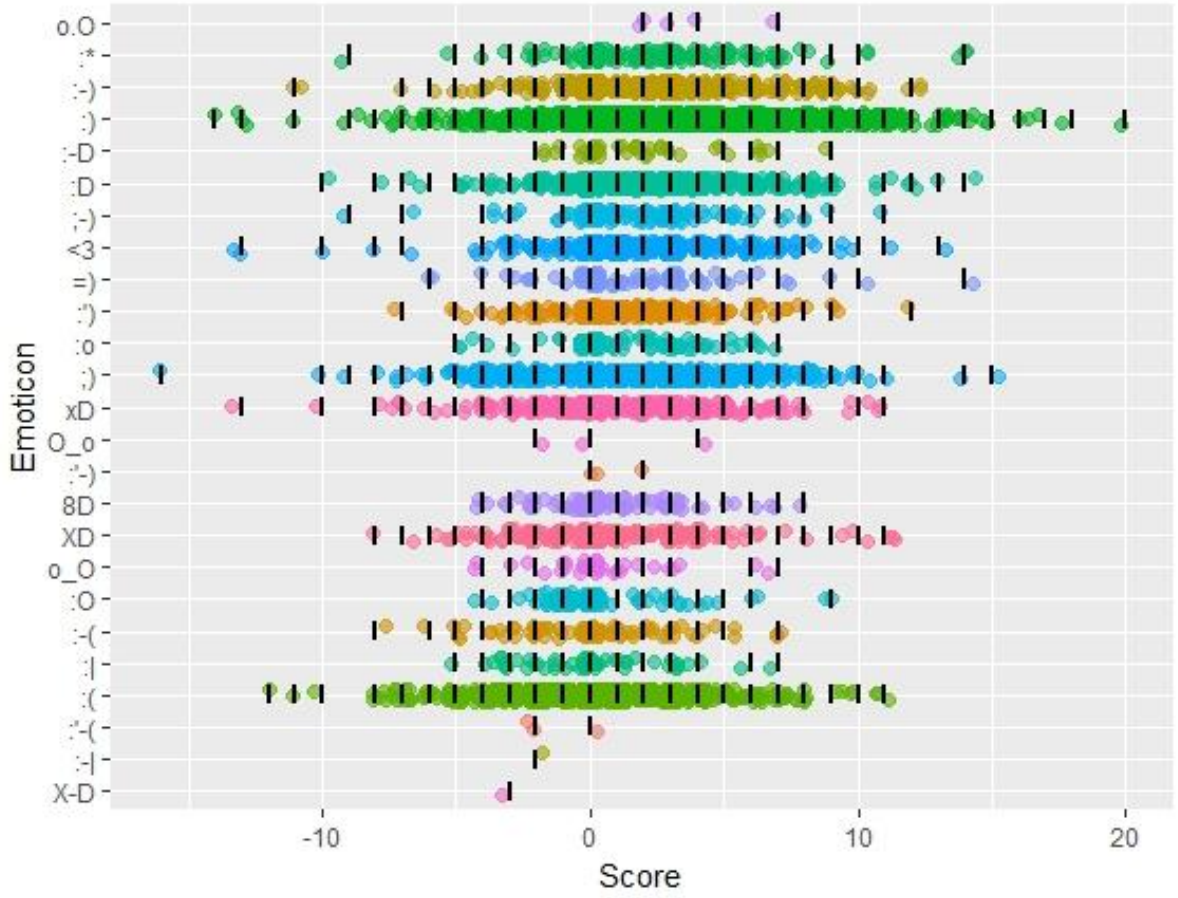
Graphs


Sentiment Analysis of Tweets
number of tweets
20
10
0
positive
negative
neutral
emotion categories
emotion
positive
negative
neutral

Emoticon sensing and analysis

- Takes a big character set of all possible emotions with a score assigned to each emotion based on the severity.
- Takes a list of possible emoticons.
- The tweets are compared with all these emotion-scores.
- Then the tweets are compared with this emoticon list and based on it, it is judged as whether positive sentiment or negative

Graphs



Analysis of algorithms

- Emoticon sensing is the best among all algorithms as nowadays, emoticons are the ones that perfectly describes whether a tweet is positive or negative. People nowadays use a lot of emoticons and hence this is the best algorithm among all the implement ones.
- Naïve-Bayes is the next best algorithm as it categorizes and then compares and assigns positive or negative to the sentiments.
- Hu and Liu Opinion Lexicon is the next best as it searches and mines the tweets with the matched texts and also assigns polarity.

Thanking You