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85 – 90

Twitter Sentiment and Statement Reality Analysis

Considering Pre-Current and Post Event Tweets

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***Abstract*—** As we know that twitter is one of the main internet applications which have pulled many internet users into messaging, sharing tweets etc. The day to day increase of internet usage by the means of Desktop's, Laptops, and Smartphone's etc. which made following, follows and favorites hit count to a maximum extent. This has given many un-ethnic users an advantage on making a message or an event to hype, or fake so as to make business or an event a profitable economically or on monetarily. This makes a user or viewers a frustration on the belief. To decrease such activities and increase the reliability and belief a Tweet/ Event Reality Analysis has to be imposed by Considering Tweet Sentiment on Pre-Current and Post Event Tweets based on Event Date. In this paper, we focus on the Tweet Sentiment and Statement Reality Analysis by Pre-Current and Post Event Tweets based on the event Date. The tweet sentiments have to be categorized based on the sentiment and sub categorized on whether the tweet was before the Event date, or on Current Date and or on Post Event Date, which gives the Reality Analysis of the Tweeted Statement without affecting the tweet sentiment.

Keywords- *Twitter, Tweets, Sentiment, Ranking, Tweet Statement Analysis, Event Detection, Text Mining*

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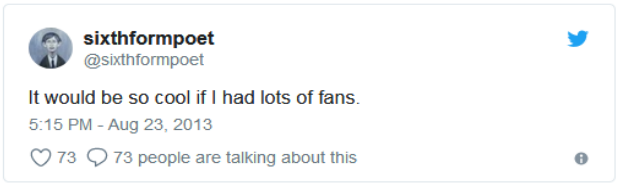
I. INTRODUCTION

Twitter, Weibo, Tumblr, a micro-blogging sites are social networking platforms where short messages can be sent by the user to share opinions/links on topics and sentiments on what's going on in the world have been increased rapidly on the base of follow people. Unimaginably the levels of the tweets are increasing leading to the online extracting the knowledge of interesting patters and also making the efficient data analysis technique requirements.



Twitter is used for developing Stories, news tracking, and assesses public opinions. For example:Election campaigning [1], Twitter traffic is used by journalists, campaigns, and pundits to determine candidates' popularity for predicting election outcomes before counting date [2].

Users are creating an identity and building a community by these Social Networks resulting in making relations, finding users having similar thinking and ideology and knowledge content locating tweeted by the followers[3]. For events like sports, traffic congestion, incidents, earthquakes, cyclones and many social, anti social events Social Network have been a platform for the twitters. A real-world occurrence that occurred on specific date & time and location can be termed as an EVENT [4], [5].

Status Update Message (SUM) [6], [7] is the feature where twitters share tweets often like traffic events, cricket, media, entertainment events etc. Therefore Social Networks analysis on event detection is a major issue because of irregularities and unstructured texts and also informal or abbreviated, grammatical errors and misspellings because of which they are [1] Incomplete source of information [2] Have huge amount of non useful and meaningless content [8].

II. RELATED WORK

As we have seen that the twitter and many other blogging website and social networking apps are available and are in more utilization over the internet and Smartphone era. In general they are the most powerful tools and ammunitions to the netitizens where they rely on the data shared by the organizations [TV channels etc], Corporates [Microsoft, IBM etc], and many other reliable marketing industries, which provide breaking, updated and latest news or information at the users figure tips instantly.

Advertisements of Events happening at date and location is also shared using these apps; for attracting the public

 ISSN: 2454-4248
85 – 90

attractive posters and animated or videos are shared with tweets relating the previous event feedback and statistics which will change the opinion of the follows, and followers of the event or the tweet.

This will give the Event organizations profitable with respect to economically and commercially. This aspect is used by few fake organizers, or some media and others by attracting the public which downgrades the belief on such good Internet Applications and Android apps. Keeping the popularity and belief **Pre-Current and Post Event Tweets** will be the best solutions for all the fake and valid tweets.

Note: These are assumptions

For Example 1: *Tweet*

Event Name: *Movie Name*

Description: *Famous hero, heroine etc,*

Total Tweets: *say 10000*

Before Releasing Date: *6000 Tweets*

+Ve: *4000 Tweets*

-Ve: *1000 Tweets*

Neutral: *1000 Tweets*

Current and After Releasing Date: *2000 Tweets*

+Ve: *40 Tweets*

-Ve: *1500 Tweets*

Neutral: *500 Tweets*

In the above scenario by seeing the above stats we can say that the movie is flop movie

For attracting public +Ve tweets are posted before releasing date. But while having the movie on the theaters these tweets may be the fake.

On contradictory some movies

For Example: Tweet

Event Name: Movie Name

Description: Normal hero, heroine etc,

We may have less +Ve tweet and many –Ve tweets. But the movie will hit the box office.

Total Tweets: *say 10000*

Before Releasing Date: *6000 Tweets*

+Ve: *1000 Tweets*

-Ve: *4500 Tweets*

Neutral: *500 Tweets*

Current and After Releasing Date: *2000 Tweets*

+Ve: *4500 Tweets*

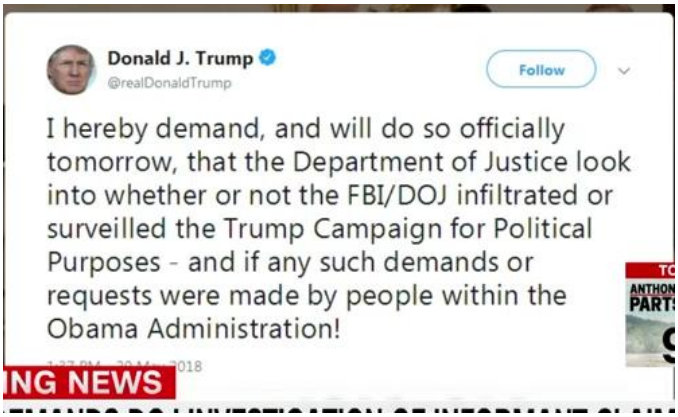
-Ve: *500 Tweets*

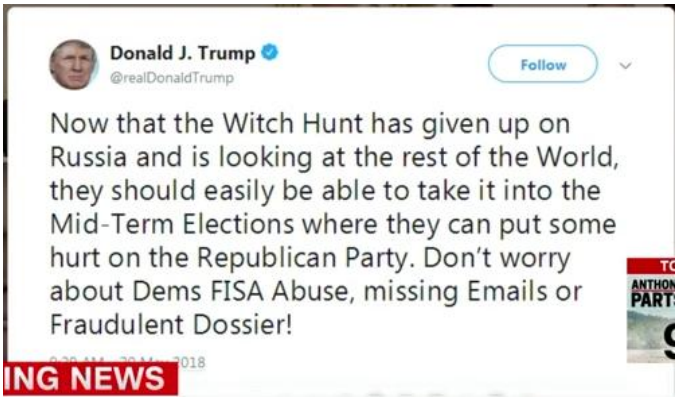
Neutral: *1500 Tweets*

Real time:

Example1: Donald Trump:

Tweet Date: Updated 1818 GMT (0218 HKT) May 20, 2018





Website:https://edition.cnn.com/2018/05/20/politics/donald-trump-sunday-tweets/index.html

 ISSN: 2454-4248
85 – 90

1. **"Things are really getting ridiculous. The Failing and Crooked (but not as Crooked as Hillary Clinton) @nytimes has done a long & boring story indicating that the World's most expensive Witch Hunt has found nothing on Russia & me so now they are looking at the rest of the World!" (9:04 am)**

2. **"....At what point does this soon to be $20,000,000 Witch Hunt, composed of 13 Angry and Heavily Conflicted Democrats and two people who have worked for Obama for 8 years, STOP! They have found no Collussion with Russia, No Obstruction, but they aren't looking at the corruption..."**

These Donald tweets are approved faked by CNN politics.

Example 2:

https://twitter.com/Surya__Speaks/status/997756435130912768

https://twitter.com/runaik/status/997819907806040064

https://twitter.com/NaMoShaDov/status/997788555576467456

https://twitter.com/DMadhurirao/status/997782066539388929

https://twitter.com/RaniG71575922/status/997774987615350786

https://twitter.com/Pradyt/status/997752991598940161

https://twitter.com/Somu_nair/status/997753367840485376

https://twitter.com/vithya1963/status/997753616311218176

https://twitter.com/jagan7585/status/997755016051068928

Like above there are many more fake tweets available as we keep on Google or search on the twitter.

III. DEFINITIONS

A. CP: Count Pre Date Tweet

B. CC: Count Current Date Tweet

C. CPo: Count Post Date Tweet

D. +Ve: Positive Sentiment

E. –Ve: Negative Sentiment

F. Ne: Neutral Sentiment

G. CP(a1): +Ve Count Pre Tweet

H. CP(a2): -Ve Count Pre Tweet

I. CP(a3): Ne Count Pre Tweet

J. CC(b1): +Ve Count Current Tweet

K. CC(b2): +Ve Count Current Tweet

L. CC(b3): Ne Count Current Tweet

M. CPo(c1): +Ve Count Post Tweet

N. CPo(c1): -Ve Count Post Tweet

O. CPo(c1): Ne Count Post Tweet

Svm Naive Bayes algorithm is the best and simple among others as it clearly inputs a positive and negative words specified and then the phrase is divided uniquely words and then the classified the phrase and the probability is performed and probability comparison provides a better sentiment polarity(positive or negative) and prior this clearly specifies of +ve or -ve nothing other and as provided training dataset testing data classification performance is on the best side

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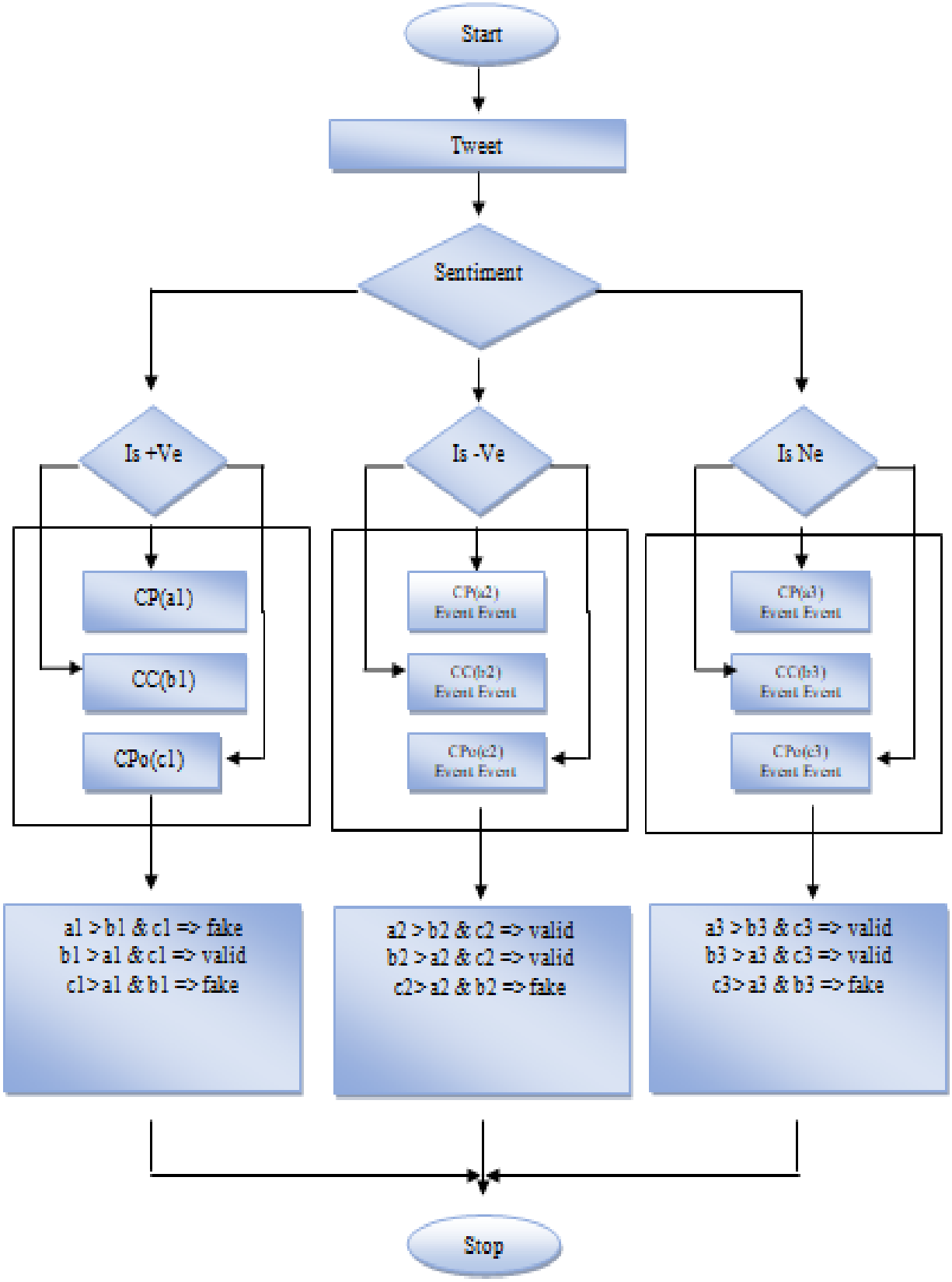
85 – 90

IV. SYSTEM MODEL



ISSN: 2454-4248
85 – 90

In the above system model we can propose that the Reality check can be done on the count of CP(a1), CP(a2), CP(3), CC(b1), CC(b2), CC(b3), CPo(c1), CPo(c2), CPo(c3) and on comparing can get the Reality of the a Tweet Sentiment.

V. OUR PROPOSED ACCESS CONTROL SCHEME

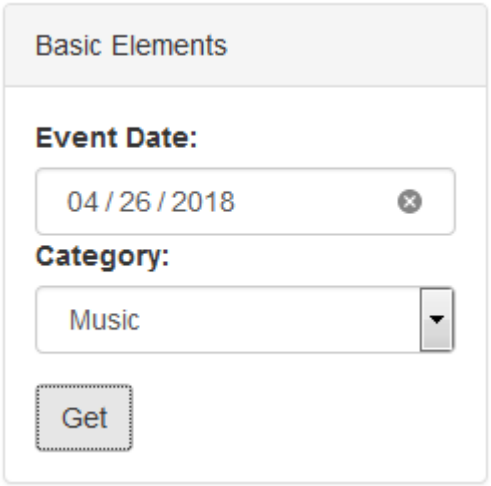
On the basis of the above scenario we propose that the Pre Current and Post Ranking analysis will give Reality of the Tweet for which we will be using Bayesian Sentiment Analysis, and Ranking on the Count of the individual sentiments and can attain the **Twitter Sentiment and Statement Reality Analysis Considering Pre-Current and Post Event Tweets**

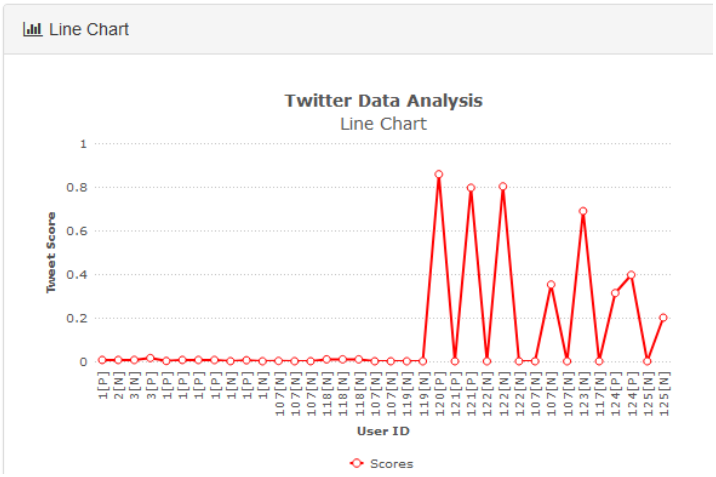
Algorithm 1:

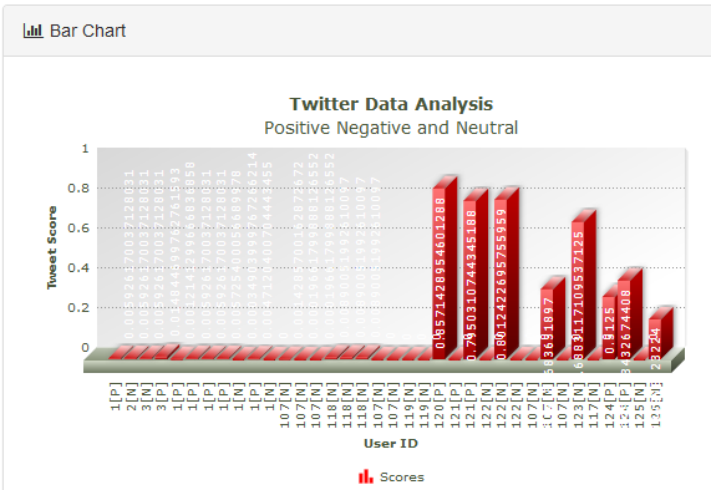
1. Get the Tweet by Event Date
2. Check Pre Tweet or Current Tweet or Post
3. Get the Polarity of the Tweet
4. Calculate the Polarity wise Count Count(+Ve), Count(-Ve) and Count(Ne)
5. Compare the Pre, Current and Post CP(a1),CC(b1), CPo(c1)
6. Compare the Pre, Current and Post CP(a2),CC(b2), CPo(c2)
7. Compare the Pre, Current and Post CP(a3),CC(b3), CPo(c3)
8. Get the Valid/ Fake Tweet

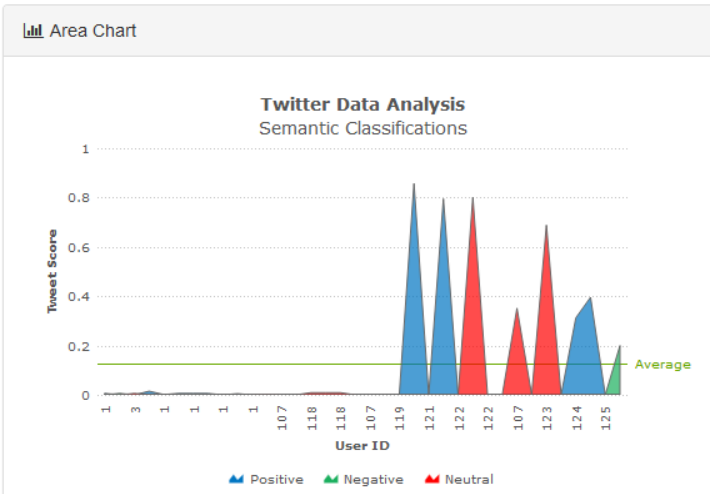
Algorithm 2:

Step 1: Get some sentiment examples
Step 2: Extract features from examples
Step 3: Train the parameters
Step 4: Test the model

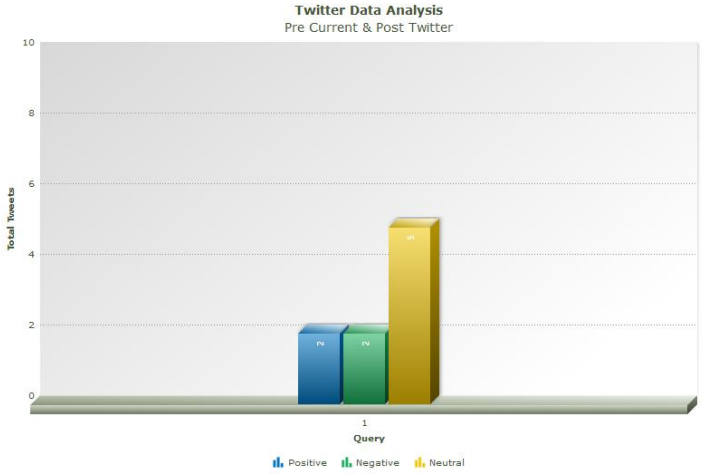


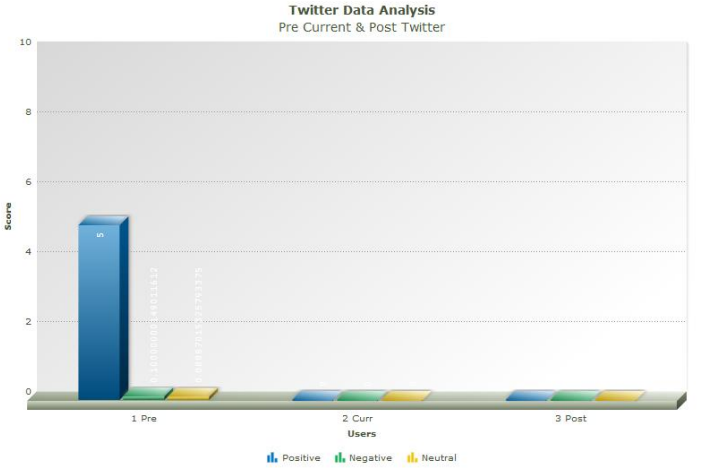


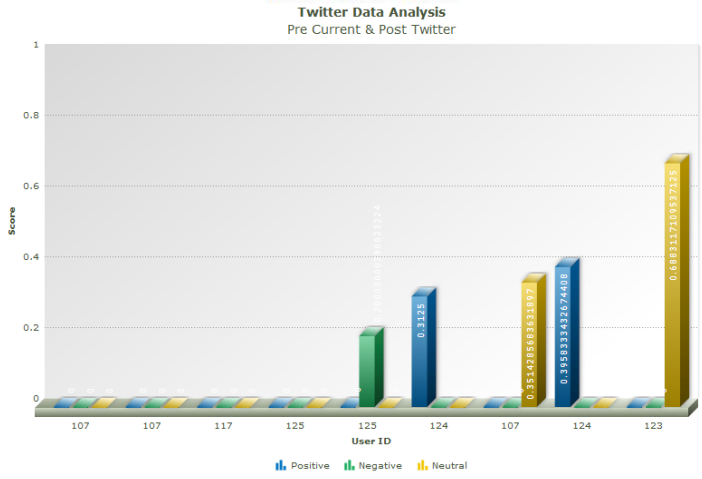


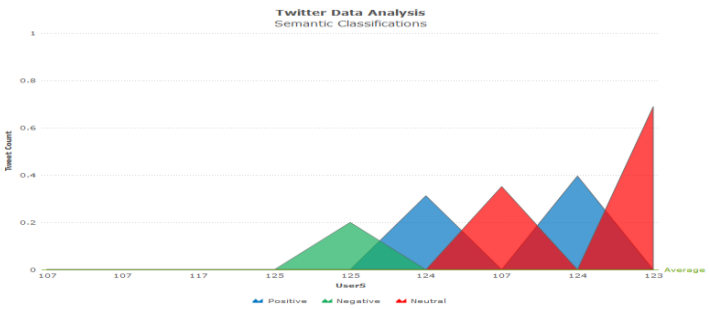


 ISSN: 2454-4248
85 – 90









VI. CONCLUSION AND FUTURE SCOPE

In this paper, we propose that the tweet should be analyzed depending on the Pre, Current, and Post date events which is used to get the reality of the statement without affecting the sentiment of the tweet and also we can know whether the tweets are making hype for the event or a real tweet made by the twitters and followers. In the future score tweet event categorizations have to be considered for better organized Reality Check based on the location of the tweet.

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