An Approach to Block Negative Posts on Social Media at Server Side

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ABSTRACT

These days' social media is the new friend of human beings. Whatever a person wants to say or someone feels, he posts everything on social media. These sentiments can be analysed to detect the behavior of a person. Sometime a person posts some negative thoughts that hurt the sentiments of other persons or may cause several riots. These types of negative posts must be filtered out before being public. One way to block these types of comment is to keep the surveillance on each and every post by humans themselves which is almost an impossible task. Instead of this technique server can be trained to keep track of each and every comment and use its own intelligence to rectify positive comments and block the negative comments. This paper introduces a technique to block these negative comments even before they can be public on any social media site. In this technique sever uses its artificial intelligence to separate positive and negative words or sentences from a post. The server finds the average of the negative statements and if it exceeds a particular threshold, the server discards that post, else server will allow the post to public. This technique can be efficient and very successful if the server properly depicts the positive and negative words.

KEYWORDS: sentiments, social media, counters, server, queue

1. INTRODUCTION

Rapid use of social media app such as Facebook, Twitter, Instagram, etc has made humans more friendly to share their feelings publicly. These feelings are displayed to a huge community of pupils. Mostly the people express their feelings by posting some comments on critical topic through social media. Sometimes these comments may lead to negative effect, which may result in several riots or may hurt the sentiments of persons. So it is important to keep a track of these comments. This paper proposes technique where this type of comments can be detected and some proper actions can be taken. Before implementing this technique let's see some of the cases where social media post have left some negative impact.

1.1 'Let's Shoot Up the School at Homecoming' (Instagram) [1]

Two 14 years old girls of Ohio's Findlay High Schools have posted a photo on social media where they are holding fake guns and a sign saying "I hate everyone you hate everyone let's shoot up to school at Homecoming". This matter forced the school committee to contact the police to investigate the matter and later on concluded that was just a prank, not an actual threat. This girl was later suspended from the school.

According to Findlay police department juvenile Court directed both the girls into a diversion program.

1.2 Social media posts trigger seven communal riots in a month in West Bengal [2]

Baduria north 24 Paraganas district which is 60 km from Kolkata has suffered 7 communal riots in one month because of social media. Many people from different community posed different comments on facebook. One of the posts was from a 17 year old boy that triggered a communal riot leading to the death of a RSS worker along with 25 common people and 20 policemen were injured. Further a school teacher from Harishchandrapur sparks the matter by posting another post on facebook. Later the government ordered the cyber security surveillance team to keep the regular check of such activities.

2. Literature review and related work

Mohammad Shabaz and Ashok Kumar [3]. This paper introduces a technique called as "AS: a novel sentimental analysis approach" to separate positive and negative sentiments. This technique is designed such that it counts almost accurate sentiments from a set of given words or sentences. This sentimental approach makes count for

positive and negative sentences and also tokens from a huge set of data that can be taken from a site APIs. Then makes the compare of positive and negative count with reference tokens. If the mean value for positive count lies between 0 and 1. The sentiments are positive. Similarly if mean value for negative count lies between -1 and 0, the sentiments are negative. For calculating average value of positive and negative tokens the formula used is given below.

$$\text{Support-p\_count} = p\_count/(p\_count+n\_count+1)$$
$$\text{Support-n\_count} = -n\_count/(p\_count+n\_count+1)$$

Where p_count stands for positive count and n_count stand for negative count.

Beiming Sun and Vincent TY Ng [4]. This paper analyses the sentimental influence on the social media posts and then compares these results on different topics. This paper introduces a method to measure the sentiments of a post. The method detects the emotional sentiments by detecting the emotional words in the post. The emotions are of five dimensions: happy, sad, angry, fatigue, tense. In all of these sentiments happy reflects positive emotion while all other reflects negative. This method counts these positive and negative emotions from a post and based on the count decides the sentimental influence of the post.

Apoorv Agarwal Boyi Xie Ilia Vovsha Owen Rambow Rebecca Passonneau[5]. This paper focus on examining the sentimental analysis on twitter data. Manual annotated twitter data is used. The use of this type of data over previous used data set is that the new tweets are collected by server in regular fashion, thus represents true sample of actual tweets in term of content it contain and also language. Here two kinds of models are demonstrated: tree kernel and feature based models. In feature based model feature analysis which shows that the most important features are the one that combines prior polarity of words and there parts of speech tags. The result of this paper shows that the sentimental analysis on tweeter data is same as other social media genres.

Harshali P. Patil and Dr. Mohammad Atique[6]. The data posted on social media is a huge source of gathering information that can be used for decision making. To analyze this huge data automatically a new area called sentimental analysis has been emerged. It focus on differentiating opinionative data in the web according to their polarity: is it a positive or negative connotation. This paper introduces a detailed explanation of different types of techniques that are used in sentimental analysis to understand the work done in this field.

3. Implementation
This approach has been designed in such a way that the server detects the total number of positive and negative sentimental count from a given set of comments. The algorithm for such technique is given below

1. Store each word of the comment in a queue.
2. Create two counters, one for counting positive words p_counter and other for counting negative words n_counter from a post.
3. Take each value from a queue one by one and check whether it is a positive word or a negative word by comparing it with predefined set of words. If the word

reflects positive sentiment then increment the counter p_counter elif the word reflects negative sentiment increment the counter n_counter else the word is neutral so no counter is incremented.
4. Check the count of each counter. If n_counter is greater than p_counter discard the post or report the post to authorized admin of the server. If p_counter is greater than n_counter, share the post.
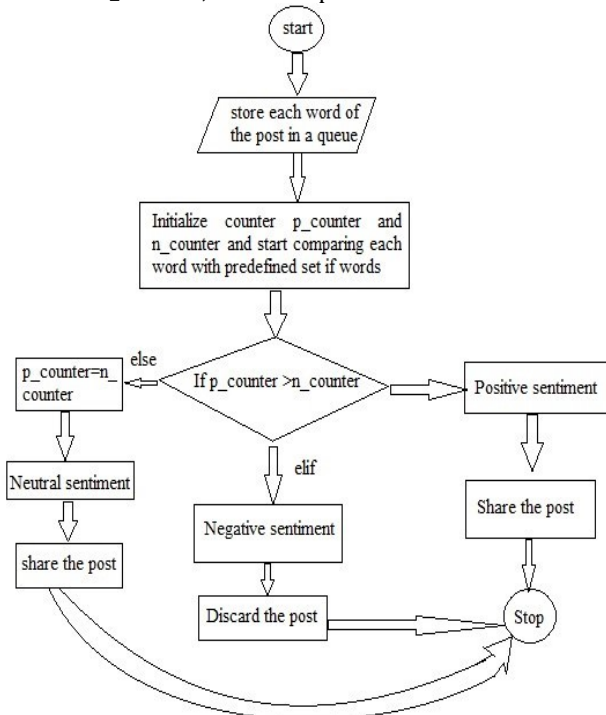

Fig1. Flow chart

Figure1 shows the flows chart for the above algorithm. The flow chart satisfies all the condition to be occurring. The counter count will determine the sentiments of the post to be positive or negative and further necessary actions will be taken by the server.

4. Results
Depending on the count for both the counters, the server will decide whether to share the post publically or to deny the post. The server can detect the negative and positive words more precisely if the text data or predefined date is huge. This algorithm is more efficient if the serve is trained to self learning by using artificial intelligence and machine learning algorithms. This technique acts like a firewall to negative sentiments.

5. Conclusion
This is a proposed technique that can be useful to study human behavior. This technique can be helpful to stop negativity through social media all over the world. To conclude I would like to say that the social media world is for connecting to other people all over the world but not to spread hate.

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