SGP SEMESTER -5

Twitter Sentimental Analysis

Jhanvi Shah[1], Harsh Viradia[2] Madhav Ajwalia[3]

IT Department, Charotar University of Science and Technology
Anand, Gujarat

19it130@charusat.edu.in
19it151@charusat.edu.in
madhavajwalia.it@charusat.edu.in

Abstract: - social media plays a vital role in everyone's life. It is platform for worldwide news. Twitter, Instagram, Facebook have been the best medium for communicating. The use of social media has rose by 80 percent in this Covid19 pandemic. It helped people to maintain their relationship as well as to entertain themselves. Social media also had negative impacts like Isolation and Self-Absorption, FOMO (Fear of missing out), Depression and anxiety etc. It affected the mental health severely; anxiety and depression has been a source of multifaced stress for huge amount of population face common mental disorder. There is more than 264 million people of all ages suffer from depression in the world.

Depression Rate

WhatsApp
25 percent

Twitter
37 percent

Facebook
62 percent

YouTube
45 percent

Snapchat
69 percent

Instagram
68 percent

Keywords: - Depression Detection, Twitter Sentimental Analysis, Machine Learning, natural-language-processing, case-based reasoning, Artificial Neural Network.

INTRODUCTION

Natural language processing (NLP) is part of AI. Knowing human language is the power of computer viruses. Some of them have various real-world applications in areas like medical research, search engines, business intelligence, etc. It takes real-world data, processes it, and interprets it in a way that a computer can understand. Like humans, computers have various sensors in the form of microphones to play programs and audio, and like the brain, computers use programs to process input. At some point in the process, the input is converted into code that the PC can understand.

⇨ PROBLEM STATEMENT

- Sentiment analysis of web-app are mainly focal-point on one tweet only.

with the rapid increases of the "WWW", peoples use social media like twitter to generate large amounts of comments for emotional analysis in the form of tweets. This translates too much information from a human point of view, making it difficult to make a sentence. Read them, analyse, summarize, and organize tweets in the timely.

- Difficulty of sentiment Analysis is inappropriate English.

Informal language uses the colloquialisms and the slang in conversation, which uses spoken language conventions such as 'no' and 'not'. Not all systems can detect emotions through the use of informal language, which can hamper the process of analysis also decision making.

Emoticons is pictorial representations of human expressions that serve to grab the recipient's attention, correct interpretation, and alter the length or nature of the sender's trivial verbal communication in the body language and worms. For example, Oman's happy status indicates that the current system does not have enough data to derive sentiments from emoticons. In such a situation, men often turn to emoticons to express them correctly, which cannot be expressed in words. Not being able to analyse it harms the organization. The acronym is also widely used with Short Messaging Service. This is because Twitter limits its characters to 1 4 0.

METHODOLOGY

This research project is divided into 2 parts. First the literature is studied, then the system is developed. The study of the literature consists of carrying out studies on various techniques and methods of sentiment analysis currently in use. In part 2, the requirements and functionalities of the application are defined before its development. In addition,

the constructure and the diagram of the thing interface and how it will communicate are also known. Several tools such as Notepad are used to develop Twitter sentiment analysis applications.

⇨ Objective

The objectives is study the analysis of the value in the microblogging which consists in analysing the customer return of the product of the organization; And second, develop a customer product review program that allows you to get a feel for the organization or individual and analyze a large number of tweets in a useful format.

LITERATURE REVIEW

A. Twitter

Twitter is popular live example of micro-blogging service short pieces of information called tweets. Users are writing tweet to show their opinion on different topics related to there life. Twitter is a great platform to get people's opinions on specific issues. The bunch of tweets is use as the main repository for sentiment-analysis, that is, opinion-mining. or natural language processing. Twitter, has more than 600 million users and it has millions of posts every day, it has become a valuable thing for any organizations to quickly strengthen their reputation and brands by extracting and analysing people's, we all know services, markets and competitors. Let me points out that with the vast development of the www, opinion has been generated through social media, with a huge amount of opinion pieces available for analysis in the form of tweets, these guys make the world-wide canvas. The fastest, most inclusive. NL refers to the use of processes. Twitter, with more than 600 million users and millions of messages per day, is quickly becoming their product of choice for organizations,

B. TWITTER SENTIMENT ANALYSIS

Emotions are found in the comments or in the tweets to get useful points for different purposes. In addition, and said emotion can be classified in 2 groups, negative and the positive terms. Sentiment analysis is a NLP technique to calculated the opinion or sentiment expressed in a poll of tweets.

C. Opining Mining

An opinion exploration refers the broad field of NLP, txt-mining, that includes the computational study of the feelings, thoughts expressed in text. It has many areas of app, account, law, technology, politics, and marketing. However, an attitude or point of view based on emotion rather than a cause is often colloquially referred to as emotion. Therefore, lend your peers to opinion research or mind analysis. In recent times, many social media have offered an open space for in

D. SOCIAL MEDIA

Social media is a hub of internet app developed the conceptual technical-foundation and of web_2.0 that allows to the creation exchange of content. The Internet World Start discussion revealed that Internet users are spending more time on social-media, social media in the US has increased 40% to reach 122 billion-minutes in 2013. hand job Up from eighty-eight billion minutes in 2012. The other next side, organization use the social-media sites to find and know with customers, which can hamper productivity because of social media.

Conversely, the advantages of using in social media were discussed. far outweigh social sharing in improving the reputation of the organization and generating career opportunities and financial income. In addition, it is mentioned that social media is also used by businesses for promotion, professional research, recruiting, online social education and e-commerce advertising. Ecommerce or e-commerce refers to the online buying and selling of services that can be done through social media, like twitter, it is convenient due to its availability. It's service and global reach.

One of the reasons businesses are increasingly using social media is to present an opportunity to learn more about trends in consumer behaviour, market information, and consumer opinions and perceptions.

E. TECHNIQUES OF SENTIMENT ANALYSIS

Concepts of semantic items derived from the tweets use for calculate total relation of groups of items with a shown sentimental. Polarity takes the max basic form, whether a txt or a line is plus or minus. It has polarization assignment techniques.

⇨ ARTIFICIAL NEURAL NETWORK (ANN)

ANN is a technique that connects a part of neurons that are artificial with each other. It will work on the information using the attachment approach for the calculation. ANN is used to find the connection between inputs and outputs or to find common in the data.

⇨ NLP: - NATURAL LANGUAGE PROCESSING

NLP are connect to ML and in particular statistical learning which uses large samples of data to learn rules, general learning algorithms involving corpora. Sentiment analysis is conducted at several levels of granularity, as NLP refers to NLP. From the classification function to the document level, it has been handled at the row level and more recently at the row level. NLP is an area of computing in which computers generate meaning and data from human language.

⇨ SVM: - SUPPORT VECTOR MACHINE

SVM used to detect sentiment in tweets. Said SVM can extract and analyse the test set to achieve an accuracy of up to 70% -81.3%. Collecting of data from different twitter sentiment detection websites that primarily use a predefined sentiment lexicon to tag each tweet as plus or minus. Using SVMs trained from this noisy tagged data, they achieved 82.4% accuracy in different of emotions.

⇨ CBR: - CASE-BASED-REASONING

CBR is available for implementing sentiment analysis. CBR is known for remembering successfully resolved issues from the past and for using similar solutions to resolve issues related to the present. Recognizing some benefits of CBR, it's doesn't require a domain model and therefore becomes a task of collecting elite care history and learning by gaining new knowledge as in the case of RBC system. The use of these technologies and databases simplifies information.

F. MICRO-BLOGGING AND E COMMERCE

A micro-blogging platform as twitter, is similar to a traditional blogging platform with only a short message. The tweet has limited to some words intended for the rapid transmission of data or the exchange of ideas. However, small-businesses or huge-organizations are baptized for the potential of micro-blogging.

Sharing instant, interactive and community-driven features opens up e commerce, launching a bright spot that could show that microblogging platforms enable businesses to build branding, product sales channels, product sales, products, exchanges with customers. To engage in good conversation and several activities.

1. ML APPROACH

ML methods often rely on a classification of supervised approach in the emotional probes are constructed as negative and positive binaries. Approach requires labelling of the data

to train the classifiers. This approach, it becomes clear, must take into account aspects of the word's local context, such as negative (like not pretty) and intensity (like very beautiful). However, here is a basic example of creating a feature vector.:

- • count of positive words
- • count of negative words
- • Absence or presence or frequency of every word

Let show some examples of switch negation, it's reverse the polarity of the lexicon: changing wonderful (+8) into not wonderful (-8).

It isn't terrible (14-13 = 1) but not (-14+13 = -1). In that way, firmly denying a positive or negative value reflects a mixed outlook that is properly caught in the misplaced value. the limitations of the ML-based approach were noted more suited to Twitter than lexicon-based method. In addition, ML methods create a number of the most regular events. Popular words that specify Z value on instand of the word's frequency on Twitter.

2. LEXICON-BASED APPROACH

These methods used a predefined word. Every word is linked with a dedicated emotion. Methods of the to the context in which it was created and enter into the calculation of its orientation. The lexicon methods are presented with basic examples It also indicates that the purpose of the sentiment lexicon is to find the opinion that leads the word to then to predict the opinion expressed in the text and corpus. which are:

- • Pre-process every tweet and post by remove punctuation
- • A total polarity score 0 in the starting
- • We have to check token present in the dictionary then

  If the it's positive then s "+"
  If the it's negative then s "-"

- • After that check s

  If s > threshold, positive tweet
  If s < threshold, negative tweet

An advantage of the tilt-based method is the got to adapt and build a trained model for specific goals and contexts. Conversely, the availability of labeled data and therefore the new, less applicable data methodology that leads to the labeling of data can be costly or even restrictive for certain tasks.

G. API: - APPLICATION PROGRAMMING INTERFACE

API is ahead of the rest in terms of the quantity and quality of bodies extracted. Over time, the Python Twitter API has been replaced with built-in tweets. python automatically calculate the fre quency of re-tweeted messages every one and half minutes, Sort the first 200 messages by tweet frequency and store them in the specified database. it collected data that needed to stored in a separate-database.

RESULT

However, the output will classified in 2 part, encoded and uncoded. Depending on the some of the output will be displayed in ID format such as String ID security issue for accessing the data. sentiment analysis. Tweets will be ranked in positive and negative terms
according to the lexicon, and the value of each word will be determined. The end will be displayed in csv and html and text format.

A. INFORMATION PRESENTED

The end will be displayed in a diagram. Null hash Represents the hash tag for the hash tag that has been assigned a null value. the program is able to list the top ten positive and negative hashtags.

B. SENTIMENTAL ANALYSIS

The value of each word will be assigned to match the tweets in the dictionary of the JSON file. Like a series of words in the lexicon that cannot assign a value to each tweet.

However, like the science language of python, which is able to analyse the meaning of each tweet in plus or minus to get the result.

C. TWITTER RETRIEVED

In order to integrate with the twitter API, the developer must agree to the Twitter Platform Development Terms and Conditions which are provided in order to obtain permission to access the data. The output of this process will be recorded JSON file. The reason is that said JSON is easier to generate and analyse for machines. JSON is a different from language text format, but from the C-language, which includes python others. the size of the output depends on how long it takes to retrieve the tweet from twitter.

CONCLUSION

This project was developed to analyze consumer attitudes towards what is critical to market success. The program uses a ML approach which is more specialized in the analysis of emotions; Natural language processing techniques will be used together.

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