IJARCCE ISSN (O) 2278-1021, ISSN (P) 2319-5940

International Journal of Advanced Research in Computer and Communication Engineering

Impact Factor 7.39 ⁜ Vol. 11, Issue 4, April 2022

DOI: 10.17148/IJARCCE.2022.11446

Sentiment Analysis for Social Media Response

Manas Narsing[1], Aditi Dave[2], Mueez Adeen[3], Anjay Kumar [4], Dr. Rais Abdul Hamid Khan[5]

UG Students, Computer Science and Engineering, G. H. Raisoni University, Amravati, India[1,2,3,4]

Assistant Professor, Computer Science and Engineering, G. H. Raisoni University, Amravati, India[5]

Abstract: With the rapid growth in users of social media in current years, their users get attracted to the use of social media data for sentiment analysis of people or a particular product or event. The word sentiments describe feelings like emotion or opinion. Sentiment analysis includes identifying how sentiments are expressed in texts and whether the expressions indicate positive or negative opinions toward the subject. An important part of our information-gathering behavior has always been to find out what other people think. With the growing availability and popularity of opinion-rich resources such as online review sites and personal blogs, new opportunities and challenges arise as people now can, and do, actively use information technologies to seek out and understand the opinions of others. Online shopping sites encourage users for posting reviews about products they purchase. Such reviews are useful for new users to make the decision about the product at the time of purchasing and for manufacturers of that product to make decisions about its production. Thus, sentiment analysis of product reviews is becoming popular in text mining and computational research. Social Media houses a vast amount of data that can be utilized for data mining. It has become an inseparable source that has been influencing the lifestyle of millions of people.

Keywords: sentiment analysis, opinion mining, social media, product safety, natural language processing

I. INTRODUCTION

The Internet has gained access in each and every domain and has become an integral part of all walks of life. In today's world, people give their reviews over the internet. All these reviews are being stored as a huge amount of data for each and every minute. These reviews have equal importance as those buying the commodity. Analyzing these reviews will enhance both the end-users and the account executive. Sentiment analysis has earned its identification and is used in classifying the reviews.

Sentiment analysis, also called opinion mining, is the field of study that analyses people's opinions, sentiments, evaluations, appraisals, attitudes, and emotions towards entities such as products, services, organizations, individuals, issues, events, topics, and their attributes. It represents a large problem space. There are also many names and slightly different tasks, e.g., sentiment analysis, opinion mining, opinion extraction, sentiment mining, subjectivity analysis, effect analysis, emotion analysis, review mining, etc. However, they are now all under the umbrella of sentiment analysis or opinion mining.

Sentiment Analysis is a topic of Natural Language Processing. It is also a task of information extraction which can obtain feelings of writers expressed in positive or negative comments, questions, and requests, by analyzing a large number of documents. In general sentiment analysis is capable of determining the attitude of a speaker or writer with respect to some topic In these days use of the internet is increasing rapidly and because of that exchange of public opinion also increases which is the driving force behind sentiment analysis. Sentiment Analysis is a very challenging task as it is difficult to extract the public opinion and sentiment from structured and unstructured data available on the web. Sentiment Analysis includes finding the correct entity from the text towards which the sentiment is directed. Text-Based Sentiment Analysis classifies text based on the sentimental orientation of opinion they contain. The analysis of sentiments may be document-based where the sentiment in the entire document is summarized as positive, negative, or objective. It can be sentence-based where individual sentences, bearing sentiments, in the text are classified sentiment analysis can be phrase-based where the phrases in a sentence are classified according to polarity. Sentiment Analysis identifies the phrases in a text that bears some sentiment. Sentiments can be classified into objective sentiments, positive sentiments, and negative sentiments.

Objective sentiments may include facts. Positive sentiments will denotes feelings like happiness, joy, satisfaction, etc and negative sentiments may include feelings like dissatisfaction, disappointment, sorrow, etc. The sentiments can further be given a score based on their degree of positivity, negativity, or objectivity.

Sentiment analysis aims to determine the attitude of a speaker or a writer with respect to some topic or the overall contextual polarity of a document. The attitude may be his or her judgment or evaluation, affective state, or the intended emotional communication. The basic task in sentiment analysis is classifying the polarity of a given text at the document, sentence, or feature/aspect level whether the expressed opinion in a document, a sentence, or an entity

IJARCCE ISSN (O) 2278-1021, ISSN (P) 2319-5940

International Journal of Advanced Research in Computer and Communication Engineering

Impact Factor 7.39 ⁜ Vol. 11, Issue 4, April 2022

DOI: 10.17148/IJARCCE.2022.11446

feature/aspect is positive, negative, or neutral. Advanced, "beyond polarity" sentiment classification looks, for instance, at emotional states such as "angry," "sad," and "happy". This project is dealing with sentiment analysis. Sentiment Analysis is also called opinion mining. Sentiment Analysis refers to the use of natural language processing, text analysis, and computational linguistics to identify and extract subjective information in the source material.

II. LITERATURE SURVEY

The author [1] analyses from their research are that the sentiment of the data to find out their market values by using the naïve byes algorithm. It is a machine learning algorithm that detects the probability of sentiment and predicts the class of test data. It performs multiclass prediction. The lexicon-based dictionary approach works efficiently, it is a simple approach to sentiment analysis of any data. So, the prediction is that the sentiment behind a post is in nature of unstructured data. The author [2] says that emotions are a part of life and among other things, highly influence decision making. This paper presents emotional theories which we will briefly mention. Ekman's emotion model, which is consist of sadness, happiness, anger, fear, disgust, and surprise provides a basis for emotion models, which shows how this model has been used by computational approaches to emotion detection, for that we used hybrid based architecture for emotion detection and SVM algorithm is used for validating the proposed architecture and it achieves the prediction accuracy of 96.43% on web block data that suggests semantic and syntactic information can vastly improve prediction accuracy.

The author [3] suggests from their paper that when each user can share their ideas about different things and the process involved in this analysis is brought out by the user, this can be done by following. When the user will posted something on the website in the form of text then it will be split into sentences. And then sentences can be converted into bags of words by the process of stemming and cleaning that can be compared with the opinion lexicon and the sentiment score is calculated by scoring the function.The author [4] Presents the comparative analysis of pattern matching. There are various solutions for it that we can use algorithm the highly efficient algorithm like the brute force and Boyer Moore algorithm that we can use in our project. where brute force algorithm, simply try to match the first character of the pattern with the first character of text, and if we succeed, try to match next and so on. And Bayer Moore algorithm is used for exact and approximate multi-object and multi-pattern matching. this algorithm determines the maximum possible shift distance in case of a mismatch. if the first comparison causes a mismatch and the corresponding text symbol does not occur in the pattern at all. As a result, the most efficient algorithm is brute force. So by using this algorithm the sentiment analysis can be done.

III. METHODOLOGY

Proposed Methodology:

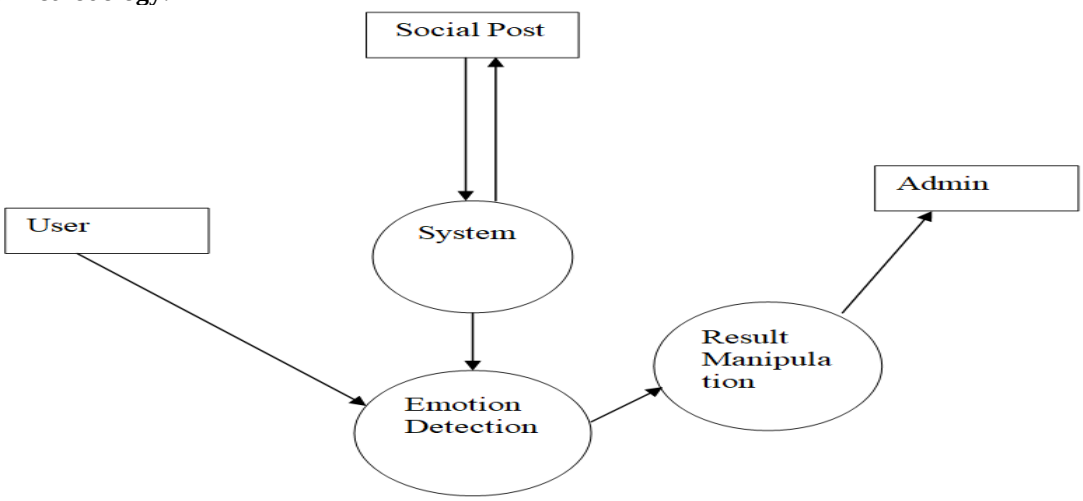

Fig.1.The overview of the proposed system

The system shows that there is a number of users who will register on the website and upload their social posts on it. All the social posts coming on the website will be saved to the database in the system. The system does the sentiment analysis of emotion detection by matching the patterns of the dataset and keywords. After completing the processes of emotion detection according to the post uploaded on the website by the various user and the final result will be shown in the admin login.

IJARCCE ISSN (O) 2278-1021, ISSN (P) 2319-5940

International Journal of Advanced Research in Computer and Communication Engineering

Impact Factor 7.39 ⁜ Vol. 11, Issue 4, April 2022

DOI: 10.17148/IJARCCE.2022.11446

User Interface: There are various sections designed on the page first is for user login i.e. Sign In and the second is to create a new account i.e. Sign-up. Here users firstly create their account and then the user can log in here any time whenever they want. The third section is for My Profile here users can post their text and then our system can predict the result for a particular post entered by any single user and here users can upload their images. The home screen as shown in figure 2 is the first screen that the user sees when they login to the application.

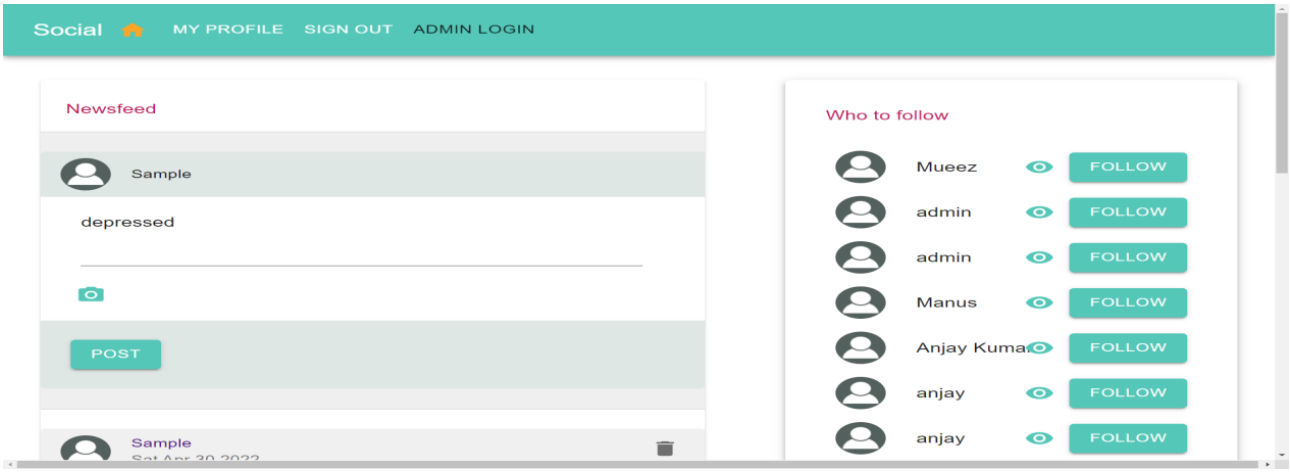

Figure 2: User Module

Another section is for the admin where the admin can log in and sees the home page. Here admin can predict the mood of that user.

Figure 2: Emotion detector

IV. CONCLUSION

In this paper, we have shown how sentiment analysis works on emotion theories and that have been used as a basis for building models applied in computational approaches in emotion detection. Sentiment analysis is the task of natural language processing and information extraction task which obtained the writers feeling in the form of emotion. The post will be entered in our webpage posts are automatically recognized by the computer in the form of emotions. We have presented a literature review of the latest research in this area.

International Journal of Advanced Research in Computer and Communication Engineering
Impact Factor 7.39 ⁜ Vol. 11, Issue 4, April 2022
DOI: 10.17148/IJARCCE.2022.11446

REFERENCES

[1]. Sanjida Akter, Muhammad Tareq Aziz, "Sentiment Analysis On Facebook Group Using Lexicon Based Approach", iCEEiCT 2016.
[2]. Haji Binali, Chen Wu, Vidyasagar Potdar, "Computational Approaches for Emotion Detection in Text", 4th IEEE International Conference on Digital Ecosystems and Technologies, 2010.
[3]. S. Rajalakshmi, S. Asha, N. Pazhaniraja, "A Comprehensive Survey on Sentiment Analysis", 4th International Conference on Signal Processing, Communications and Networking, 2017.
[4]. Priya Jain and Shikha Pandey, "Sentiments Analysis Of Twitter Data Using Data Mining", International Conference on Information Processing Vishwakarma Institute of Technology, 2015.
[5]. Sindhu C, Dyawanapally Veda Vyas, Kommareddy Pradyoth, "Sentiment Analysis Based Product Rating Using Textual Reviews", International Conference on Electronics, Communication and Aerospace Technology, 2017.
[6]. Pietro Ducange, Michela Fazzolari, "Social Sensing and Sentiment Analysis: Using Social Media as Useful Information Source ", 2017.