



IJIRCCCE

e-ISSN: 2320-9801 | p-ISSN: 2320-9798



INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH

IN COMPUTER & COMMUNICATION ENGINEERING

Volume 11, Issue 5, May 2023

ISSN INTERNATIONAL
STANDARD
SERIAL
NUMBER
INDIA

Impact Factor: 8.379



9940 572 462



6381 907 438



ijircce@gmail.com



www.ijircce.com

YouTube Based Depression Detection System for Young Generation

Prasad Cheke¹, Pritee Nagapalle², Saurav Deshpande³, Prof. Rasika Pachhade⁴

Department of Computer Engineering, VACOEA, Ahmednagar, India^{1,2,3,4}

ABSTRACT: Depression may be common and high medical issue or problem. That negatively affects how you are feeling the way you think that and the way you act. In India the national mental health survey 2015 -16 reveals that almost 15 percent of Indian off adult need active intervention for one or more psychological state issue and one in 20 Indians suffer from the depression. This survey motivates us to work thereon it's approximate show that in 2012 India had over 2,58,000 suicides, with the age limit of 15 to 49 years. Bing most of this age bracket spends the foremost time with social media and shows their view on it by using this we will provide a situation to detect the depression state of the user and supply social support to the user by automatically detecting depression this technique will use the emotions of the users recognized from video watched by the user the title of the video decrease the content or category of video with the help of this we will find the mood and depression state of the user expelled out from the depression.

KEYWORDS: YouTube sentiment analysis, natural language processing, depression level.

I. INTRODUCTION

Depression is one of the major mental ill health faced by human of all ages and gender in the recent years. The work culture stressful life, emotional imbalance, family distributed and social life is leading to depression.[1] Depression is becoming common and Serious medical illness and is causing negative effects on how one feels and act up on in day to day life.[1] Usually this mental State Causes feelings of sadness. 1083 of interest things and job and rarely may lead to suicide. If affects the natural ability of functioning at work as well as at home [6].

The main purpose of the work discussed in the paper is to make the depression detection using the emotions of the user recognized from user videos watched by the user[4]. The title watched by the user. The title of video described the content category of the video with help of this will find the mood & depression.

PROBLEM DEFINITION AND OBJECTIVE

The purpose to develop this software is to detect the depression based on emotion reorganization from title of videos watched by the users through various social media. As in present world large population uses social media by using this thing we can help people to provide a social support to users to expel out users from that situation. the main goal is to provide help through social media.[1]

There are lots of parameters to be acknowledged to indicate depression of a user. Most of the users express their emotional state through posts and tweets and watch video on YouTube, videos in the proposed model, at first Beautiful Soup is applied to collect tweets. Facebook posts are collected manually with the permission of some users. Collected data are processed and read into the machine learning model. Then collected data are uncluttered by using NLP.[4]

we have presented a Compressive computational framework for depression deletion from video emotion based on video title analysis. The system gathers information from social media use and processing on it. Collectively and identify emotions behind social active. content through the emotions obtained from processing we can easily detect the mood of user as user is happy or user in depression. By providing social support to user we can easily expel user from depression. [5]

II. RELATED WORK

1.1 Machine learning for emotion analysis

A Machine Learning-based human emotion examination approach is represented by Riyadh.[8] During this research work, the authors use sadness, happiness, disgust, and surprise for his or her distributed task. They

collected tweets from Sentiment140, labeled them manually, abolish tweets with no emotion, and created a balanced dataset accommodate 3,750 tweets.[2] 3,500 tweets were selected because of their training dataset and 250 tweets as the testing dataset. For feature extraction, the Unigram model and therefore the Unigram model with POS tagging were used. The authors use the frequency of the Bag of Words model as a feature to coach their classifier.

1.2 RNN for Depression Forecasting

A novel approach for depression forecasting was initiated by Sahara, using RNN. The authors design the LSTM-RNN based deep learning algorithm.[6] They used their model to elaborate embedding layers regarding every absolute parameter, which also assimilate a day-of-the-week variable to work out the day-of-the-week consequences in their imitation. They collected depressing data from 2,382 self-declared depressed persons, covering 22 months' time span, via an android application[7]. Their technology was successfully ready to forecast 84.6%, 82.1%, and 80.0% severe depression instances in 1, 3, and 7 days beforehand, respectively.

1.3 Machine Learning for Depression Analysis

Wang et al. conducted an investigation on Sina microblog, a Chinese micro-blog, which is one among the foremost influential social media services in China[4]. They integrate both Psychological and Machine Learning knowledge for their evaluation. From the technical perspective, Machine Learning techniques, like Decision Tree, Naive Bayes, and Rule-based classifiers were used.[5] Their described method contained mainly three types, namely, polarity calculation of sub-sentences, sentence and word segmentation, and polarity calculation of sentences. Their model was ready to achieve 80% precision.[5]

III. PROPOSED METHODOLOGY

Our proposed system for detection of depression and provide social support is developed for the users who are suffering from depression but due to lack of support sometimes they lost their life. The proposed system we provide social platform the proposed system we use we social media Platform like YouTube for the detection of depression as we know that mobile users are more Connected help of things we used in our project. The proposed system it detects the mental Condition or mood of the user during the use of Social media via YouTube API. An the we manually would assign a depression factor to that video. Depression factor of video be and official video link would be saved in our database.

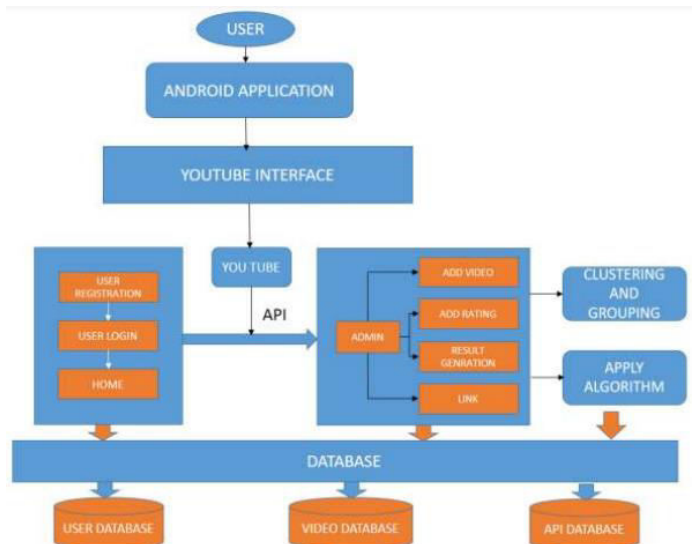


Fig 1. Proposed System Architecture

Natural language processing:

Natural language processing (NLP) is a subfield of linguistics, computer science, and artificial intelligence concerned with the interactions between computers and human language, in particular how to program computers to process and analyse large amounts of natural language data. The goal is a computer capable of "understanding" the contents of

documents, including the contextual nuances of the language within them. The technology can then accurately extract information and insights contained in the documents as well as categorize and organize the documents themselves.[5]

Graded Sentiment Analysis

If polarity precision is important to your business, you might consider expanding your polarity categories to include different levels of positive and negative:

- ❖ Very positive
- ❖ Positive
- ❖ Neutral
- ❖ Negative
- ❖ Very negative

IV. WORKING MODULE

- User Login/Registration:

The first step is to register on the android application and login to avail the services and features.

- You Tube Interface:

The interface is designed with the help of the official YouTube API. It stores the details of the video in the database.

- Historical Data

System user Historical data i.e. data search by user for watch video to calculate the depression factor using sentiment analysis as a NLP

- Result Generation:

The dashboard displays the results of depression level calculated by the NLP algorithm based on the user history.

- Database

The database stores login credentials and history of each YouTube video search title.

The scope of our project is to take a part of the whole depression level detection process. From a technical

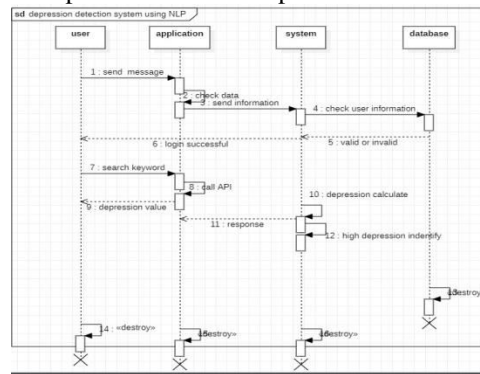


Fig 2. System Module

V. CONCLUSION

As per studies, depression if unaddressed can negatively impair an individual’s ability to regulate their thoughts, behaviors, and emotions. This research demonstrated the use of machine learning to detect depression among individuals. The proposed system presents a comprehensive framework for depression detection from video emotion based on video title analysis. The natural language processing based technique analyses the user’s watch and search history to determine their depression level.

By providing social support to the user we can aid in receiving timely medical care. The features are also highly complementary, combining attributes with the title features shows very promising results. The future scope could require a focus on building a system that would limit the opportunities of exploitation of an individual’s privacy. One such approach could be compliance with data protection regulations. Provision of transparency about the quantity as well as quality of data collected and to make sure that information collected for one purpose is not used anywhere else.



REFERENCES

1. H. Klumpp and N. Amir, "Preliminary study of attention training to threat and neutral faces on anxious reactivity to a social stressor in social anxiety," *Cogn. Therapy Res.*, vol. 34, no. 3, pp. 263–271, 2010.
2. B. Andrews and J. M. Wilding, "The relation of depression and anxiety to life-stress and achievement in students," *Brit. J. Psychol.*, vol. 95, no. 4, pp. 509–521, 2004.
3. N. Bayram and N. Bilgel, "The prevalence and socio-demographic correlations of depression, anxiety and stress among a group of university students," *Social Psychiatry Psychiatric Epidemiol.*, vol. 43, no. 8, pp. 667–672, 2008.
4. F. R. Schneier, "The influence of anxiety as a risk factor for major depression," in *Proc. US Psychiatry*, 2007, pp. 14–16.
5. B. J. Kim, C. C. Sangalang, and T. Kihl, "Effects of acculturation and social network support on depression among elderly Korean immigrants," *Aging Mental Health*, vol. 16, no. 6, pp. 787–794, 2012.
6. B. A. Primack et al., "Use of multiple social media platforms and symptoms of depression and anxiety: A nationally-representative study among U.S. young adults," *Comput. Hum. Behav.*, vol. 69, pp. 1–9, Apr. 2017.
7. F. Sadeque, T. Pedersen, T. Solorio, P. Shrestha, N. Rey-Villamiza, and S. Bethard, "Why do they leave: Modeling participation in online depression forums," in *Proc. 4th Int. Workshop Natural Lang. Process. Social Media*, 2016, pp. 14–19.
8. J. Qi, P. Yang, G. Min, O. Amft, F. Dong, and L. Xu, "Advanced Internet of Things for personalised healthcare systems: A survey," *Pervasive Mobile Comput.*, vol. 41, pp. 132–149, Oct. 2017.
9. "Depression," World Health Organization, 04-Jul-2017. [Online]. Available: https://www.who.int/mental_health/management/depression/en/. [Accessed: 21-Dec-2018].
10. X. Wang, C. Zhang, Y. Ji, L. Sun, L. Wu, and Z. Bao, "A depression detection model based on sentiment analysis in micro-blog social network," in *Pacific Asia Conference on Knowledge Discovery and Data Mining*, pp. 201–213, Springer, 2013.



INNO  **SPACE**
SJIF Scientific Journal Impact Factor
Impact Factor: 8.379



ISSN INTERNATIONAL
STANDARD
SERIAL
NUMBER
INDIA



INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH

IN COMPUTER & COMMUNICATION ENGINEERING

 **9940 572 462**  **6381 907 438**  **ijircce@gmail.com**



www.ijircce.com

Scan to save the contact details