

REAL TIME DEPRESSION ANALYSIS SOFTWARE FOR PSYCHOLOGIST FOR INITIAL SCREENING OF AN INDIVIDUAL

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ABSTRACT

Depression is the foremost reason for disability in global. This depression analysis model foremost goal is to help patients as well as doctors in finding mentally depressed people by using machine learning algorithms. This model is built by using machine learning algorithms along with sentiment analysis technique is used for finding sentiment of the post or articles. Decision tree machine learning algorithm is used for classifying the comments or articles based on that the machine will predict the level of the depression for this model Dataset is collected from social network such as twitter account data.

This model prediction is very helpful for initial screening for the patients who are not ready to consult doctor. And also helps for doctors simply repeating the by asking the questions for patient. This application reduces the time instead of going and consulting the doctor by manually.

Keywords-Datasets,Psychology,
Depression level, Prediction level.

INTRODUCTION

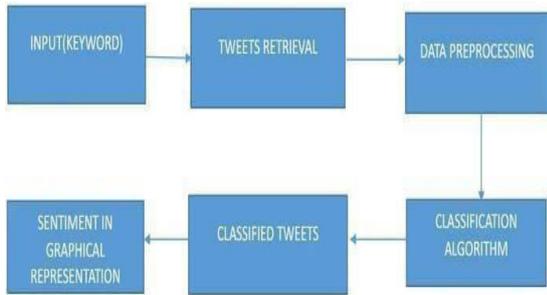
With the large amount of increase in the web technologies, the No of people expressing their views and opinion via web are increasing. This information is useful for everyone like business, government and individual with 500+ million tweets per day, twitter is

becoming a major source of information. Twitter [1] is a micro blogging site, which is popularly known for its short messages known as tweets. It has basically limit of 140 characters but from 2017 its doubled. Twitter has base of 240+ million active users and hence it is a useful source of information. The users often discuss their personal views on various subjects and also on current affairs via tweets. Out of all popular social Medias like Facebook, twitter, Google. Twitter's audience varies from regular users to celebrities, president. Therefore it is possible to collect tweets of users from twitters and internet groups.

Sentiment analysis method is proposed utilizing vocabulary and man-made rules to calculate the depression inclination of each comment/review/message/article.

Depression is a leading cause of disability worldwide. In clinical diagnosis, psychological doctors often make face-to-face interviews referring to the commonly used Diagnostic and Statistical Manual of Mental Disorders criteria, where nine classes of depression symptoms are defined.

Problem: effective but not proactive. More than 70% of people in the early stages of depression would not consult the psychological doctors.



Popular social media – Facebook, Twitter User generated contents (UGC) Emotions and moods Daily lives & mental states.

RELATED WORK

Over the years many sentiment classification systems have been developed using many techniques. These systems have been implemented using many machine learning algorithm. In [2] The propose a twitter sentiment classification. System for us airline service analytics which is designed by taking the data from the kaggle data set. The author have been used word embedding's and document vector technique used for data processing and machine learning classification algorithm can be used for classification of the tweets and find the accuracy.

METHODOLOGIES

SYSTEM MODEL

fig 1:system model

DATASETS

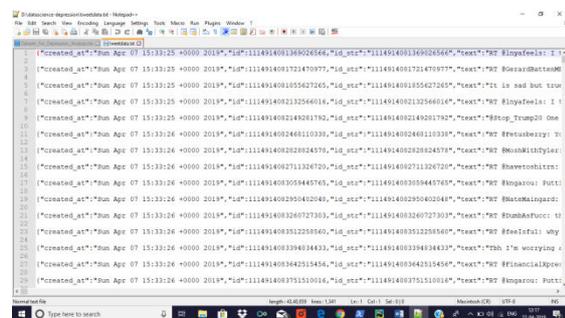


fig 2:datasets

This is a image for accessing the twitter data from the twitter social media .The accessing program written in python. It should be access individual users id,text and image etc .this data called as trained data set

DEPRESSION LEVEL OF PATIENT

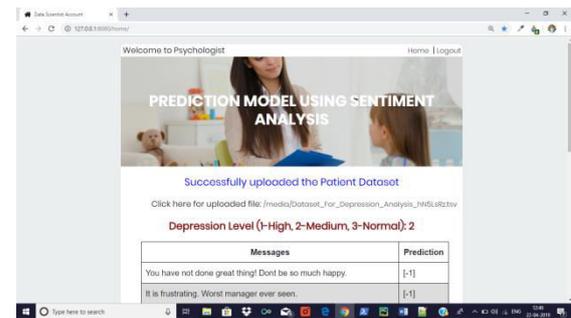


fig 3:depression level of patient

This is the Result page ,It gives the result in the form of three levels , one is high depression ,second one is medium depression level and third one is normal.

FEASIBILITY STUDY

Feasibility Study provides the complete picture of the Qualitative and Quantitative analysis of the application which is being developed during the initial design of the application.

It is all about getting the right information regarding the resources, tools to be used and the total time taken for the completion of the project.

Technical Feasibility

The tools are to be set before it is being used properly before the application is being developed.

The tools and technologies used are not to be changed frequently which varies the financial cost already estimated. The team needs to have the complete details of how the tool exactly works.

Economic Feasibility

This feasibility gives the complete details of the financial status of the application which tells about the total cost and its benefits of the application developed. The tools and resources needs to be utilized properly for the application developed. Unnecessary tools are not to be purchased for the application development which might also cause loss when the team members are unaware of using the tool which is being purchased.

Operational Feasibility

The application developed should be compatible with all the major browsers. No ambiguity is to be caused when the user uses the application. It overall defines whether the application developed has met the requirements given by the client.

CONCLUSION

Depression is one of the major issues for death that is mental health illness. Depression affects the people how they interact and behaviour of the patient. This model is built for people who is having depression and helps them to come out of the depression by changing their behaviour. In this model, for depression analysis decision tree machine learning algorithm is used along with sentiment analysis for predicting the patient's mental health condition for depressed or not. This model is built by considering the twitter dataset that is having tweets data posted by the twitter users. dataset is most important for building an application in machine learning. This helps the model to increase the knowledge. The model is trained with different training dataset from the twitter data for prediction. Training with lot of dataset gives the predictions with more accuracy.

FUTURE ENHANCEMENT

- We can add more features like personal details of patient i.e, Name, age phone number, address and country.

- We can made it has to achieve more accuracy ,efficient and reliable for the user.
- We also do this application has online .Presently we are running this project in our local server.
- Presently we are fetching the information through text and image not in video and audio. We also fetch the information through video and audio for that we have to use the technology like voice and image processing.
- Admin can add more details of doctor's Specialization, Theories and personal details.

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