IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

COURTESY ONLINE CHALLENGE

Akanksha R. Phalke[1], Shubham S. Chavan[2], Sohel Nadaf[3]
B.E Student, Dept. of Computer engineering
D.Y. Patil School of Engineering Ambi, Pune, India

ABSTRACT: *In this paper we have concentrated on the improvement of humans facing physiological state with the help of web application named Courtesy Online Challenge. The Challenge is comprised of Machine Learning/Deep Learning, Natural Language Processing algorithms and Emotion recognition. There are many physiological states of human but we have focused on major depressive disorder which is common in humans now a days. The overall journey of user/patient is going to be of 40-50 days, depending upon the Sentiment Analysis and improvement of the user/patient. Realtime image of user is obtained by Emotion recognition to understand emotions of user. We have used all the latest references, reports for this paper*

Index Terms **- Web Application, Blue Whale, Deep Learning, Machine Learning, Natural Language Processing, Emotion recognition**

1. INTRODUCTION

Human physiological state is leading to many life threating results due to fear of asking, fear of facing, fear of losing, etc. Courtesy Online Challenge helps in improving the state of such suffering humans. The Blue Whale Challenge was a distractive game which was played in 2016-2017 and was responsible is taking life of more than 100 youngsters all over the world.

The challenge was mostly played by the people suffering from depressive disorder or emotionally weak people and thus resulted in many deaths. This made a big negative impact on people as well as the game inventor. We are looking forward to deal with humans going through same psychological state, which is depressive disorder/ emotionally weak people. So that rate of suicides will decrease as well as a positive way of looking towards the life will be addressed to the humans by playing Courtesy Online challenge. This made us to consider same human state and make a positive impression on people's life. The system aims to mold the humans to look to the positive side of life rather than being depressed due to some challenge each one has in their life; this is also made even more interesting by fun challenges which conclude a life changing solution for every user. User should be able to enjoy as well as turn positive in their depressive state or emotional challenges one goes through. We are focused in making humanity a better place in the running era of internet and socializing. Internet not only make humans to be fast as well as it makes humans slow or weak with mental situation due to huge availability. So, balancing this is very necessary for each one of us so we are making this possible with Courtesy Online Challenge.

2. RELATED WORK

a. Neha Baryah et al. focused on how Blue Whale Game spread in the whole world, what are the challenges, why the game is more attractive and how they set the target, which type of platform used for sending task. The result was that the mentally disturbed humans were targeted by social medias, social sites, as psychology states that changing a depressive person is very difficult as person only turns to be negative in all situations [1]. So, we are considering same people but to make them positive in life with some challenging tasks.

b. Dr. Richa Pandey et al. tell us how to target the depressive humans for playing the blue whale game so they used FQFD (fuzzy Quality Function Development). QFD is just used in order to design the game according to customer favorites' for analyzing the people game need data is simply coming from natural language like private search engine data, social media post, comments, likes on post, etc. after based on analysis they fix the target [2].

c. They resulted in understanding the actual reason why the aged group of 12-20 played the Blue Whale Challenge, because there was no one to stop (NST) our children's, the availability of internet where not only good but also the contact to unreal world is established and the third is monitoring the children's [2]. Considering not only aged group of 12-20 of human we target all the aged group as NST and availability of internet has made mental disorder to even all aged groups above 5 years.

d. Dana Atwood-Blaine et al. indicated all the creativity self-efficacy scores in variation of gender, age, and the young people enjoyed in playing the mobile game which were more creative than low creativity self-efficacy people. Every activity resulted in consideration of creativity self-efficacy in every age, gender [3]. We are considering the creativity in every challenge to check the creativity self-efficacy for categorizing the user in different challenge modules.

e. Frank Hegel et al. facial emotion recognition tested on artificial robot because human already have expression, they tested how robot make expression like human and how system algorithm responds and show result in this experiment uses MiCo (Mimic Control) is an interface to control six different facial expressions in applications [5]. We are considering the facial emotion recognition to get the actual emotions of user.

f. Madeleine George et al. focus on how adult people waste their time online social media, what kind of posts they post, read. So, their online attitude reflects on their offline life because of which they get disturbed and sometime letting you think negative, not all people are depressed by social posts they are already disturbed by the whole article written on the topic [6]. We are making use of such posts to understand the mentality and improve such emotional and depressive people.

g. F.A. Pozzi et al. with the help of NLP (natural language processing) finding the sentiment analysis of given data is also called as opinion mining finds the relation between words and other words and get analysis report on how much positive and how much negative their opinions [7]. So, using the NLP for finding the sentiment analysis and getting the actual state of user is easy.

h. Nilesh Wani et al. proposed result on image process which helped in building the Emotion recognition for the application [8]. Using this technique, we have filtered the image and processing the image emotions are categorized.

i. Vinod Bharat et al. illustrated techniques on data mining which cleared the idea of data mining [9].

j. Sonal Sharma et al. after successfully banning the game in world for preventing this type of harms some rules and regulation are implemented [10]. Which was necessary to establish a proper use as well as follow some rules so that everyone will be safe and not go into wrong influences.

3. PROPOSED MODELLING

The system is made up of Machine Learning/Deep Learning which is used in training a system 'How' and 'What' to respond in several conditions without actually being explicitly used. Courtesy Online Challenge uses Machine Learning/Deep Learning to train from different answers and emotions recognized by user. This makes the system more reliable and smarter.

The idea is to make people positive in life this web application has a number of components which are bind together and work on all humans' physiological ways of expressing themselves in this digital world. Like for emotion on face there is face recognition module and natural language basically used in a chat conversation for that Natural Language Processing (NLP) module. The Courtesy online challenge is bounded of 4 main modules Image Recognition, Question and Answer module, Machine Learning module/Deep Learning module, Natural Language Processing (NLP) module.

Firstly, the user registers for the challenge, but focusing on depressive states of humans we needed to categories such humans. So first five tasks will tell whether the user is actually into the depressive state or not using Image Recognition algorithm which will be running in the background to capture the actual emotions of the user. After that sentiment analysis works on categorizing that which module should be assigned to the user which is trained using Machine Learning.

The span for each user is same of 30-40 days only the modules will be varied depending on analysis of user. After successful completing 30-40 days user is left with a positive note as well new way of looking towards the life. After every task completion user will get a conclusion which will make user understand if such challenge or situation user goes through life how positive side should be seen instead of running out or getting panic. Not only the user is left on positive note as motivation for this challenge is to make the user positive in life but also other hand even decreases the number of depressive disorders in humans.

The actual flow of web application is explained with data flow diagram:

1. User has to register for playing so that a unique id will be assigned to the user.
2. Login using the mail and password provided while registering.
3. User profile will be displayed with level 0 on dashboard. The dashboard is at level 0 as the user is at initialize stage, as user will play the challenge the dashboard will increase depending on user's performance. There will be tour of the web application to have a hand on it.
4. Trial round will be allocated to the use to decide the actual depressive or emotional stage of user.
5. After the trial round the actual module is assigned to the user. Depending upon the trial round performance and emotion recognition.
6. The user can send the answer by different medias as such picture, text, audio, video which will be stored in database for analysis propose only.
7. The text answer has to be analyzed for that NLP is used to increase the accuracy of the system.
8. The dashboard will be at the top when user completes 30-40 days challenge. And successfully understand the life actually.
9. The answers are uniquely identified as everyone has their own way of experiencing a situation or the challenge so, keeping this in mind the system only analyses the understanding and positive way of user rather than putting them into so competition.

10. Analysis is done on the basis of two important components sentiment analysis after answering which is obtained by NLP and emotions which is obtained by Image recognition.

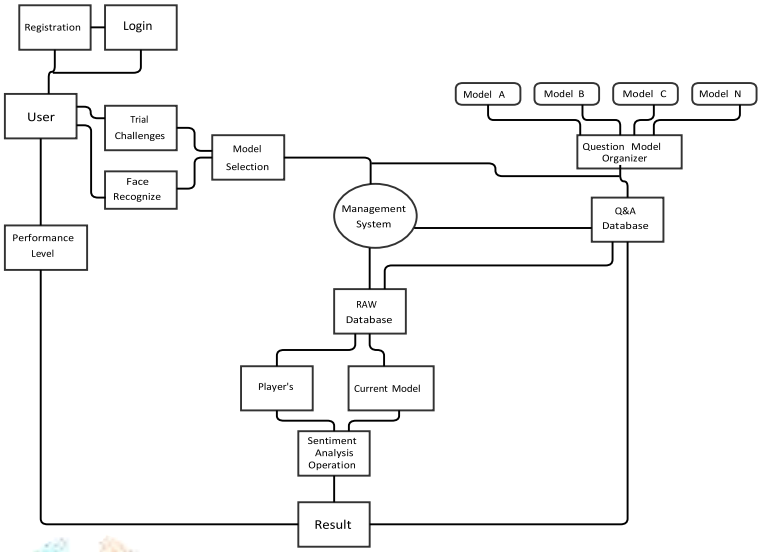

Figure: 1. Block diagram.

The system is comprised of 4 modules and each module is making the latest algorithms to make the system work efficiently. The figure below states the system architecture also the details of each module are explained below. System Architecture shows the components as well as modules in the system. Emotion Recognition and Natural Processing Language are consisting Machine Learning and Deep Learning algorithms.

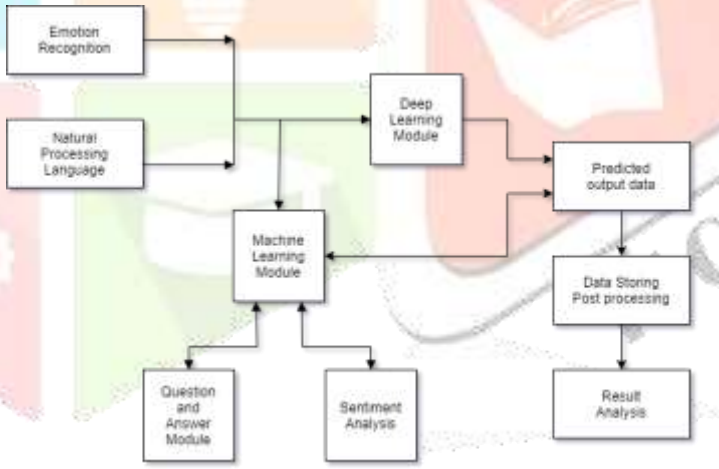

Figure: 2. System Architecture.

This algorithm makes the NLP module train by different data sets and understand the user response use of this to make the system smart. Question and Answer module and Sentiment Analysis is also making use of Machine Learning algorithms to make the analysis accurate on pre-defined filters as well as categorizing the user. The output data which is in form of text, video, audio, picture is predicted and stored and sent for training as well post processing to get the result of each user. The system is a web application as there is no platform dependency for a web application it can easily run on Android, Mac, Window, IOS. Keeping availability in mind system is a web application.

Let's understand the table below based on different parameters what the system consists of:

Parameters	Courtesy Online Challenge
Programming Language	**Server: Python, Json, Angular JS**
	Client: HTML, XML, CSS
Framework	**Server: Django, NLP, Sentiment Analysis**
	Client: Django
Algorithm	***Convolutional Neural Network (*CNN), Naïve Bayes, K-nearest neighbors (KNN)**
Database	**No SQL**

Table: 1. System Parameters.

4. CONCLUSION

The Courtesy Online Challenge is an alternating solution for humans in their false mood. It mainly focuses on the task assigning for positive impact on every human to rise and not go through any negative influence using different tasks. The expectation is to mold the future of user to walk through positive and avoid false activities. Web application is ease of access and availability to user with the Machine Learning/Deep Learning backend and for efficient and effective system performance in all the conditions. Sentiment Analysis for categorizing the user in different categories of depressive state. We conclude, that this application will rise in improving many humans' depressive disorder and look life in positive manner.

REFERENCES

[1] R. Mukhra, N. Baryah, K. Krishan, "'Blue Whale Challenge': A Game or Crime," in *Science and Engineering Ethics*, vol. 25, Netherlands: GZ Dordrecht, 2019, pp. 285–291.

[2] R. Pandey and T. Mukherjee, "Fuzzy QFD for Decision Support Model in Evaluating Basic Cause of Children Falling into Blue Whale Game," *in IEEE 18th International Conference on Advanced Learning Technologies (ICALT)*, Mumbai, 2018, pp. 108-110.

[3] D. Atwood-Blaine, A. C. Rule; J. Walker, "Creative self-efficacy of children aged 9-14 in a science center using a situated Mobile game," in *Thinking Skills and Creativity*, vol. 33, 2019, article 100580.

[4] G. Cao, Y. Ma, X. Meng, Y. Gao and M. Meng, "Emotion Recognition Based On CNN," in *Chinese Control Conference (CCC)*, China: Guangzhou, 2019, pp. 8627-8630.

[5] F. Hegel, T. Spexard, B. Wrede, G. Horstmann and T. Vogt, "Playing a different imitation game: Interaction with an Empathic Android Robot," in *6th IEEE-RAS International Conference on Humanoid Robots*, Genova, 2006, pp. 56-61.

[6] M. George, "The Importance of Social Media Content for Teens' Risks for Self-harm," in *Journal of Adolescent Health*, vol. 65, 2019, pp. 9–10.

[7] F.A. Pozzi, E. Fersini, E. Messina, B. Liu, "Chapter 1 - Challenges of Sentiment Analysis in Social Networks: An Overview," in *Science Direct*, 2017, pp. 1-11.

[8] N. Wani, D. Bodade, S. Gunjal, V. Mahadik, "A Survey on: Image Process using Two-Stage Crawler," in *International Journal of Computer Applications*, vol. 975, 2016, pp. 88-87.

[9] V. Bharat, B. Shelale, K Khandelwal, S. Navsare, "A review paper on data mining techniques," in *International Journal of Engineering Science and Computing (IJESC)*, vol. 6, 2016, pp. 6268-6271.

[10] Dr. M. Shakir, S. Sharma, "Adolescents under Stress: The Blue Whale Game Challenge," in *International Journal of Multidisciplinary*, vol. 3, 2018, pp. 379-386.