Virtual Companion

Ananya Saxena[1], Archita Awasthi[2], Pranjall Sharma[3], Saksham Bhardwaj[4]
[1,2,3,4]*Computer Engineering, Bharati Vidyapeeth College of Engineering, Pune*

Abstract **- Many people have occasional mental health problems. Mental illness can make a person feel bad. So, we created a default chatbot using google API dialogue flow. One goal is to help mentally ill patients like people with dementia, insomnia. Therefore, our Virtual Companion (chatbot) will help them, helping them to remember their program. We will use data sets for people with dementia and improve our chatbot. We will use data sets for people with dementia and improve our chatbot. The COVID-19 epidemic has had a profound effect on public mental health. Therefore, monitoring, supervision and immediate solutions to human mental health during crisis-like problems are of immediate importance. Keywords: virtual companion, chatbot, Dialogflow, intelligent monitoring, solution for mental health.**

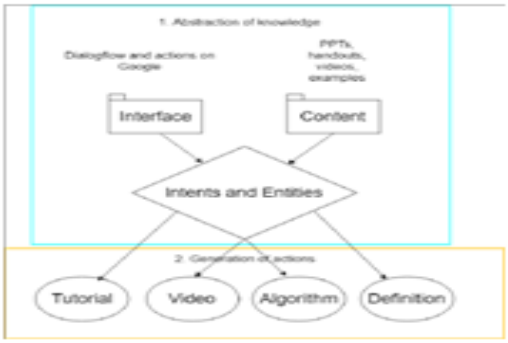
I.INTRODUCTION

We are creating a default chatbot using google API dialogflow. The purpose of our "Virtual Companion" project is to analyze existing research activities and findings about the spread of stress, anxiety and depression bots that help people urgently, and to develop a unique and technical solution to this problem. Many people have occasional mental health problems. Mental illness can make a person feel bad. Anxiety related to illness and death during a period of violence can have a profound effect on people's psychological well-being. The set of locks that lead to loss of control and the feeling of being trapped, can only aggravate and make it worse. So, we created a default chatbot using google API dialogflow. The only purpose is to help mentally ill patients such as those who suffer from dementia, insomnia etc. So, our real friend (chatbot) will help them, help them remember their plan. We will use data sets for people with dementia and improve our chatbot. The COVID-19 epidemic has had a profound effect on public mental health. Therefore, monitoring, supervision and immediate solutions to human mental health during crisis-like problems are of paramount importance. The only purpose is to help mentally ill patients such as those who suffer from dementia, insomnia etc. So, our real friend (chatbot) will help them, help them remember their plan. We will use data sets for people with dementia and improve our chatbot. The COVID-19 epidemic has had a profound effect on public mental health. Therefore, monitoring, supervision and immediate solutions to human mental health during crisis-like problems are of paramount importance. We are creating a default chatbot using google API dialogflow. The purpose of our "Virtual Companion" project is to analyze existing research activities and findings about the spread of stress, anxiety and depression bots that help people urgently, and to develop a unique and technical solution to this problem. Many people have occasional mental health problems. Mental illness can make a person feel bad. Anxiety related to illness and death during a period of violence can have a profound effect on people's psychological well-being. The set of locks that lead to loss of control and the feeling of being trapped, can only aggravate and make it worse. So, we created a default chatbot using google API dialogflow. This will help them to have a lasting companion, for patients with dementia, it helps to set schedules and remind them in a timely manner. It also sets simple drug reminders / doctor appointments and creates a simple and easy-to-use UI / Ux.

II. LITERATURE REVIEW

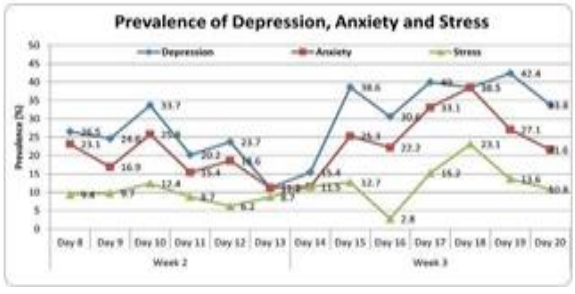
This project is inspired by the Methodology of the Use of Visual Education Assistants Using the Google Dialogflow research paper. The authors
are:
Carlos Roberto Reyes Ochoa David
Garza
Leonardo Garrido Victor De
La Cueva
Jorge Adolfo Ramirez Uresti
They have developed a visual assistant that allows students to access interactive content prepared for the undergraduate course of practical study. This chatbot

is able to show answers to frequently asked questions in a systematic way, guiding readers by voice, text or relevant content input that better solves their questions and doubts. It was developed using Google Dialogflow as an easy way to generate and train a native language model. Another advantage of this forum is its ability to collect usage data that may be useful for educators as learning guides. The main purpose of this paper is to present a practice that guided our implementation so that it can be reproduced in a variety of educational contexts and learning chatbots as learning tools. At the moment, there are few articles, news and blogs writing about the power, implementation and impact of chatbot in general contexts, however few books suggest ways to produce them for educational purposes. As a result, we developed four main categories as a standard content study curriculum and focused on quick application, easy refinement and general practice. The final product has received general student approval due to its accessibility and well- structured data.



A. Literature of Art

		Duration of Lockdown			
		Week 2 (n = 700)		Week 3 (n = 687)	
		n	%	n	%
Depression	Normal	342	70.6	427	62.2
	Mild	87	12.3	107	15.6
	Moderate	69	9.7	139	20.2
	Severe	10	1.4	14	2.0
Anxiety	Normal	579	81.8	504	73.4
	Mild	55	7.8	56	8.4
	Moderate	54	7.6	105	15.5
	Severe	11	1.6	19	2.8
	Extremely severe	9	1.5	1	0.1
Stress	Normal	643	90.7	469	67.6
	Mild	47	6.6	70	10.2
	Moderate	19	2.7	14	2.0



In a week-long intelligent analysis of the impact of Lockdown we found a growing negative impact of closure. The survey was conducted during the second and third weeks of the closure. By week 3 the incidence of depression (37.8%versus 23.4%; p <0.001), anxiety (26.6%versus 18.2%; p <0.001) and depression (12.2% versus 9.3%; p <0.045) was reported to be significantly greater. high compared to the second week. On the scale of stress and all the Well researched aspects of mental health have shown a deteriorating trend Table 3. The prevalence of a clever day of depression, anxiety and depression is highlighted.

Our results suggest a continuing detrimental effect of job closure on various aspects of mental health. We noted an eight to ten-fold increase in depression (30.5%) and anxiety (22.4%) during the closure, compared with baseline figures for the Indian population (3 · 1–3 · 6% depression and 3 0–3 · 5% anxiety).

We found that the group most affected by our study were young people between the ages of 18-30, who were still pursuing their education. Another study also reported that the group was the most vulnerable to mental illness during such closure situations. It is thought to be related to the technologically friendly environment of the new generation of adults today. This makes them more susceptible to exposure and stress due to access to unrestricted but unverified information available online and on social media.

With free access and access to the internet and social media there are significant concerns about real issues compared to fiction. Experiences from Korea and Vietnam underscore the need for a public system to ensure the validity of the information available. It is important that while the authorities focus on physical health, there should be consistent efforts to improve social support systems, address emotional needs and eradicate stigma. Although fighting disease is a major part of the epidemic, strategies for dealing with mental health problems in such difficult times should not be overlooked.

Women were at greater risk of suffering from all types of psychological symptoms (depression, anxiety and depression) compared to men; similar to previous studies.

III. METHODOLOGY

A. React Js: React has become a free JavaScript library with opensource resources used to enhance an attractive UI. It promises to give an amazing look to the app interface, regardless of the operating environment. Allows the developer to customize Cross Platform applications. Therefore, the need to upgrade to a separate App that will run on Android and iOS is removed.

B. Material UI: Material-UI is simply a library that allows us to import and use different components to build user interaction in our React systems. This saves a lot of time as developers do not need to write everything from scratch.

C. Dialog Manager: The background includes the development of the Application Conversation Manager. We have used a version of Google Dialogflow's ES (Standard) which handles all conversations and actions provided by the user.

D. Firebase: Google Firebase is an app development software supported by Google that enables developers to improve apps for iOS, Android and the web. Firebase provides tools for tracking statistics, reporting and fixing app crashes, creating marketing and product testing.

IV. IMPLEMENTATION

A. We conducted a survey with the help of a psychology student and collected the necessary information and organized it into a logical database.

B. SK- learn Library we have divided our database into small data sets which are test data and train data.

C. The algorithm we used to get the results for more accuracy was the Naïve-Bayes Algorithm. Since the Naive Bayes text section is based on the Bayes' Theorem, which helps to calculate the probable occurrence of two events based on the probability of the occurrence of each event, coding those opportunities is very important. Naive Bayes is a split algorithm that is ready to be divided into binary categories and multiple categories. The Naïve Bayes perform well in terms of classification variability compared to numerical variability. It is useful for making predictions and predictable data based on historical results.

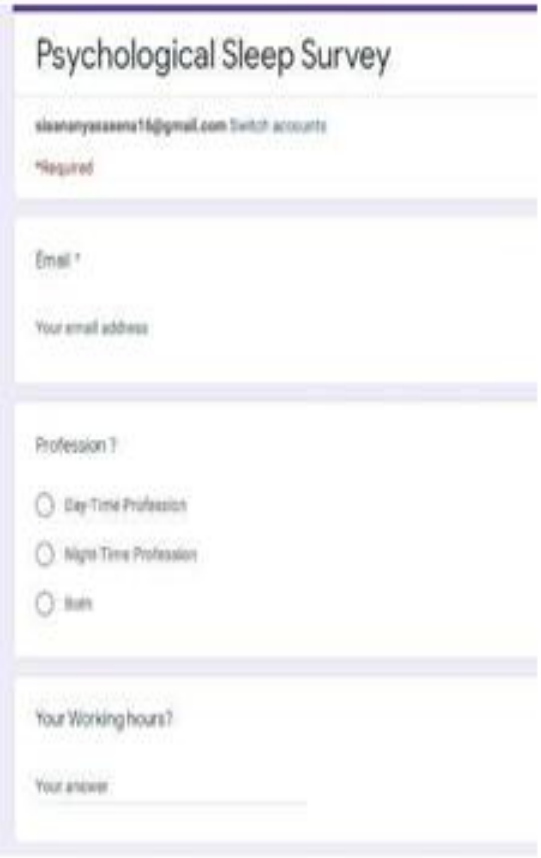
D. We have developed a collaborative approach to register users and collect their required information during difficult times on our website.

E. After the use of the user interface, our main task was to make the chat manager able to handle all user commands either voice/text and perform the required task. Google Dialogflow, NLU Platform, was required to do the same.

F. The parameter to separate the chat with our chatbot is based on the function that if a person is a student it means that the purpose of the bot will be different from that of the employee.

V. RESULTS

1. Survey



2. UI(Registration form) :


VIRTUAL COMPANION
Welcome


Registration Form
Welcome

3. Chatbot:


VirtualCompanion
hi
Greetings! How can I assist?
I am unable to sleep
I see you are unable to sleep, let me help you! Does it usually happen?
yes
Ask something...


VirtualCompanion
I know being a student is tough but one thing you are good at is answering
Have you ever been to a doctor regarding this issue?
no
Are you a student or do you work?
I go to college
Ask something...


VirtualCompanion
I know being a student is tough but one thing you are good at is answering questions. Let's see if you can answer some of mine.. Are you ready
lets go
For how many hours do you study in a day?
6
Ask something...


VirtualCompanion
How many caffine rich drinks, like coke and coffee, do you drink in a day?
1-2
Are you on any new medical prescription lately?
no
Ask something...


VirtualCompanion
1-2
Are you on any new medical prescription lately?
no
so you are a Student, you study for 6 hours a day. You use your phone and laptop for around 4 hours, you drink around 2 caffine rich drinks in a day and sleep for 8 hours a day. That sounds about right
Ask something...

VI. CONCLUSION

The COVID-19 pandemic and lockdown situation seem to have ignited another pandemic of depression, anxiety and stress. The psychological impact of a mandatory mass quarantine should be weighed more thoughtful and, in evidence, based manner. In order to combat present crisis of increasing mental distress among population, there is a need to take an immediate action to improve the mental health of the affected ones.

VII. FUTURE SCOPE

1. Till now, we have implemented our system for students and employees but in future we can categorize our system requirements on the basis of age, gender, and communities.
2. We can also modify our system and chatbot to overcome psychological animalities other than what we are configuring now such as dementia, insomnia, depression, anxiety etc.
3. After a healthy response from the people in the society, we can also integrate and implement our very own website/web app. 4. After a healthy response from the people in the society, we can collaborate with India's best psychologists so that they can peep into patient's mind and can have a one-on-one meet with them.

VIII. ACKNOWLEDGEMENTS

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