Detecting Mental Disorders In Social Media Through Emotional Patterns The Case of Anorexia And Depression

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Abstract- *This paper's goal is to succinctly demonstrate how we might advance chatbots in the medical field and treat infectious illnesses. Through the users, we can raise awareness and provide appropriate medical care to avert illness. In 2021, we developed a research report and an early training model to enhance human-database interaction. Natural language processing is used to characterize the chatbot's traits and human-like activities. In this research, we present a deep feedforward multilayer perceptron-based AI chatbot interaction and prediction model. Our investigation uncovered a knowledge vacuum on theoretical standards and useful advice for developing AI chatbots for programs aimed at improving people's lifestyles. This report also includes a quick comparison of our suggested model with respect to testing accuracy and time complexity. Our work has a minimum loss of 0.1232 and a maximum accuracy of 94.32%. This paper examines the related issues provided by using these developing technologies during such health emergencies, primarily caused by pandemics, and outlines the capabilities and potential uses of medical chatbots. We think that our study will contribute to a better knowledge of the architecture and uses of these cutting-edge technologies among researchers, which will be necessary for ongoing enhancements to medical chatbot functionality and will help prevent COVID-19.*

Keywords- Predicting Infectious Diseases Using an AI-Based Medical Chatbot Model

I. INTRODUCTION

The SARS-CoV-2 virus causes the illness known as COVID-19. On March 11, 2020, the World Health Organization (WHO) announced a pandemic. Over a million people have died from COVID-19 globally, affecting over 15 million people. In impoverished and developing nations, the sustainability and affordability of oxygen have long been issues. One of the most crucial medications for Covid-19 patients in hospitals is oxygen. The nonprofit PATH, which collaborates with international organizations and companies to address health issues, reports that India's need for oxygen

cylinders has been rising by 6% to 8% per day. The body's oxygen levels drop when someone has severe COVID-19. The SARS-CoV-2 virus caused patients to have severe fevers, coughing, and loss of taste and smell, all of which proved troublesome. Consequently, in order to avert the severe issues linked to COVID-19 and expedite a prompt remediation approach, we have created a Chatbot that enables a natural interaction between humans and computers. Chatbots, a contemporary kind of interaction, are one of the innovative mediums that consumers may communicate with in the twenty-first century to avoid and quickly fix acoustic issues. Artificial intelligence algorithms have been employed to build this medium. Chatbots mimic human interactions by making decisions, carrying out routine chores, responding to users promptly, and handling difficulties in a human-like manner. Answering engines and communicational agents are other names for chatbots. With the use of artificial intelligence and machine learning systems, developers and programmers teach these chatterbots to communicate with consumers via text-based messages, voice commands, and via communication. In order to communicate with consumers more effectively, comprehend their questions, and provide relevant solutions, we concentrated on building the AI's core. Due to the fact that the data has already been entered into the system, this application operates rather simply. The program uses a number techniques to train the system, including data mining, natural language processing, and matching patterns. Chatbots compare text or voice input from users with previously stored data and provide responses based on the match.

II. OBJECTIVE

Provide an easy-to-use user interface so that people and the system can communicate easily. Utilize natural language processing (NLP) methods to comprehend and analyze user questions on medical conditions and symptoms. Delivering accurate and reliable information may be achieved by acquiring information from reliable medical sources. Give the system the capacity to evaluate symptoms and offer broad recommendations in response to user input. Preserve data

security and privacy, especially while handling confidential medical information. Make use of machine learning approaches to enhance the system's ability to comprehend complex queries and respond more quickly.

III. EXISTING SYSTEM

In order to anticipate disease outbreaks and individual risk, existing systems for infectious disease prediction employing AI-based medical chatbots usually make use of substantial databases of medical records, symptom reports, and epidemiological data. These chatbots often make use of machine learning techniques to identify trends and forecast possible infections, as well as natural language processing (NLP) to comprehend user inputs. In order to provide real-time updates and suggestions based on the most recent illness patterns and user health information, they could interface with health databases. Nevertheless, a number of current systems have drawbacks, including issues with data privacy, restrictions on the precision of forecasts, and the need for ongoing modifications to accommodate newly discovered infectious illnesses.

IV. PROPOSED SYSTEM

The goal of the proposed AI-based medical chatbot model for infectious illness prediction is to combine real-time epidemiological data, individualized health information, and sophisticated machine learning algorithms to improve both user engagement and forecast accuracy. In order to better comprehend and reply to user inquiries, this system will make use of advanced natural language processing. It will also use ensemble learning techniques to increase prediction reliability. Through the integration of dynamic data sources, including real-time health reports and regional illness trends, the model will provide personalized actionable suggestions and timely alarms based on individual risk profiles. Furthermore, the system will provide strong data privacy safeguards and flexibility in response to novel infections, delivering a complete instrument for illness prediction and prevention.

V. ARCHITECTURE
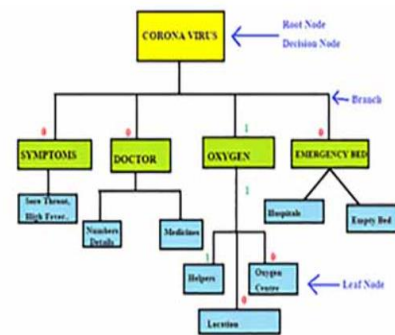
RESULTS AND ANALYSIS:

CONCLUSION

We may infer from this research that the chatbot is highly user-friendly and that anybody can utilize it in their native tongue. This bot provides medical information such as a doctor's contact information, hospital addresses in the area, how to acquire an oxygen cylinder, symptoms, diagnosis, and treatment methods of various diseases. We believe that our study will enable researchers to use the sophisticated data in the design and other aspects of these cutting-edge technologies, which may be necessary for ongoing advancements in the functioning of medical chatbots and might perhaps aid in the prevention of COVID-19. Future prospects for this medical chatbot are very promising. This may also help those who live in rural places. TensorFlow, which makes use of deep neural network architecture, is used

in this instance to aid in the development of NLP for chatbots. Once our chatbot has built its network, it will be able to anticipate the right responses to the user's questions. The bot checks the phrases and words that will be closer to the answer of the training model in an attempt to forecast something even if it is not in the training model.

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