

Survey Paper on HealthCare Chatbot System Using Machine Learning

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Abstract: Healthcare is a very important to led good life. However, it is very difficult to obtain consultation with the doctor for health problem. The basic idea is to create the Healthcare chatbot using Artificial Intelligence to diagnose disease and provide basic details and solution about disease before consulting the doctor. This will help us to decrease the healthcare costs and improve accessibility to medical knowledge through medical chatbot. The chatbots are computer programs that use the natural language to interact with users. The healthcare chatbot stores all data in database to identify the disease. Ranking & sentence similarity calculation is performed using ngram, TFIDF & cosine similarity. The score will be obtained for each sentence from the given input sentence & more similar sentences will be obtained for the query given. The 3rd party, expert program, handles question presented to a bot that is not understood or is not present in the database.

Keywords: Healthcare chatbot

I. INTRODUCTION

A Healthcare chatbot is an automated program that simulates human conversation through text messages, voice chats, or both.

The chatbot is a computer programs that use natural language to interact with users.

It stores the data in database to identify the sentence keywords & to make a query decision and answer to question.

There are wide ranges of chatbots such as business, customer care, healthcare, recommendation systems, support system, accessory shopping, travel chatbots, banking chatbots etc.

Everything in this generation is getting related with web. It's extremely efficient to

Utilize approach to management of benefit everything at your doorstep. The chatbots are

sufficient to fool the users in believing that they are talking to a human being, they have a very limited knowledge base at runtime and have no means to keep track of all the conversations. Chatbots uses machine learning to reach Artificial Intelligence for helping them to understand the user queries and provide user with an appropriate solution.

II. LITERATURE REVIEW

Sr. No	Title	Author	Year	Reference	Description
1	Contextual Chatbot for Healthcare Purposes	Prathamesh Kandpal Kapi J Jasnani, Ritesh Raut, Siddharth Bhorge.	2020	Fourth World Conference on Smart Trends in Systems, Security and Sustainability (WorldS4)	The idea is to create a medical chatbot using Artificial Intelligence that can diagnose the disease and provide basic details about the disease before consulting a doctor.
2	The Role of AI Chatbots in Mental Health	Nadja Damij, Suman Bhattacharya	2020	IEEE Technology and Engineering Management Conference (TEMSCON EUROPE)	The purpose of this paper is to explore the advances in artificial intelligence (AI) chatbots as part of public services, mainly when applied to mental health in today's post-pandemic world.

3	Smart Medical Chatbot with Integrated contactless vital signature monitor	Zaki, Wan Muhamad Asyraf Wan, Hanif Ramlee, Muhammad	2019	Fourth International Conference on Advanced Computing & Communication Technologies.	Chatbots have evolved from being Menu/Button based, to Keywords based and now Contextual based.
4	Chatbot for Disease Prediction and treatment Recommendation using Machine Learning	Rohit Binu Mathew, Sandra Varghese, Sera Elsa Joy, Swanthana Susan Alex	2020	3rd International Conference on Trends in Electronics and Informatics (ICOEI)	In this proposed system, a medical chatbot is built to be a conversational agent that motivates users to discuss about their health issues.
5	Chatbot for Healthcare System Using Artificial Intelligence	Lekha Athota, Vinod Kumar Shukla, Nitin Pandey, Ajay Rana	2020	8th International Conference on Reliability, Infocom Technologies and Optimization (Trends and Future Directions) (ICRITO)	These systems can learn themselves and restore their knowledge using human assistance or using web resources.
6	Mobile-based Medical Health Application – Medi Chat App	Mustapha Adamu Mohammed, Bright Selorm Kodzo Anibrika	2019	International Journal of Scientific & Technology Research	The development and implementation of the Android operating system and its associated Application Programming Interfaces
7	Chatbot for Healthcare System Using Artificial Intelligence	Lekha Athota Vinod Kumar Shukla, Nitin Pandey, Ajay Rana	2020	8th International Conference on Reliability, Infocom Technologies and Optimization (Trends and Future Directions) (ICRITO)	Artificial intelligence is one of the important fields in modern technologies to help us strive for better life.

III. CONCLUSION

The user of this application can specify their symptoms to the chatbot and chatbot will specify the health measures to be taken. General information about symptoms and diseases and the solution for that diseases are available in the dataset. After analyzing the symptoms of the different users, it finally predicts the disease to the user.

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