



CONTEXTUAL CONVERSATION LEARNING SYSTEM FOR ELDERLY HEALTH AND PSYCHOLOGICAL CARE

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Abstract : This project aim is to present a medical Chatbot that tells us possible disease on the ground of symptoms that are fed on the system. Then the system will be able to identify the possible disease. A Chatbot can be defined as a system that can communicate with its human users with voice interaction as well as textual. With the help of the information that we provide while the interaction or the data that are available on the internet fuels the Chatbot to give its users accurate, almost precise and efficient information based on the user's input and desirable needs. Chatbots are also helpful in fields like customer backup, helping hand in virtual assistance, collecting data for online trainings, reservations and also for conversations.

I. INTRODUCTION

The number of people who need health support has been noticeably growing for the recent decades. People who need to know their disease from symptoms can be from kids, adults and elderly. Regardless of age group, everyone needs healthcare support. Our system technology is used in health care, it can help patients determine their health problem, it can save costs for both the hospitals and patients. By monitoring the data collected by the medical chatbots can tell a patient's disease. Healthcare sector is among the most overwhelmed by the number of patients who need support outside the hospital settings [6].

An important concept in public health research is that from time to time a new technology or approach to obtain the best possible data, or the application of a new service or tool, will make such an impact that it is then used in education and routinely used in practice for decades. Humans from the early days onwards always tried to work effortlessly and thus led to automation with machines: as a matter of fact, the first humanoid-robot was invented by an Arab inventor Al-Jazari, who lived in the Turkish dynasty of Artu kids, in 1206 AD [5]. For long-lasting impact, one can look at the use of the body temperature thermometer, which was initially invented for medical use in the late 1800's; this enormously successful device is still in use today. Simply put, it made a positive change on health care that has been sustained over the century since its introduction. Technology is still a catalyst that can be impactful to the level or degree of the body temperature thermometer, and it is up to researchers, practitioners and engineers to continue to experiment and try new ideas and approaches. This paper will focus on whether the use of a bot (a software application that uses steps or scripts to automate a task and is also known as a web robot or Internet bot), can be taken as beneficial to public health research efforts. Through a variety of toolkits available, chatbots utilize Natural Understandings (NLU) services. facilitate offering a 100% personalized service and guarantee a complete availability for customers' requests. In addition to these functional advantages, they also offer an extremely obvious benefit: the reduction of costs in the service, which leads to a higher profitability of this activity and the business in general. In focusing on the development of a chatbot for use in public health or pharmacy education, we found that building such a solution is feasible given the many options that are available for use by a variety of technology vendors.

II. LITERATURE REVIEWS

Regardless of age group, patients always need healthcare support. This support could be for knowing their disease with their symptoms. Unlike mobile apps, chatbots are easy to install and can deliver a unique user experience. Moreover, two of the three apps on our phone are messaging apps. Using conversation is easier than heavy interfaces in the application especially by the elderly. The software can be used by any people. It can help patients determine their health problem, it can save costs for both the

hospitals and patients [8]. By monitoring the data collected by the medical chatbots can tell a patient's disease. A named entity is a term or entity which differentiate one entity from another collection of entities. Related ascribe. Samples of named entities are organization, person, and location names, disease names, gene, protein, drug etc.

It basically classifies the named entities. NER used in many unstructured data and identified domain specific keywords [1]. Diseases, drugs and symptoms are tagged in biomedical text. Stack overflow contents are used to extract software engineering related terms like usage pattern, issues, solutions. NER has been tried in generic domain to get fine grained terms. Named entities are recognized from various regional languages. In every text document there are specific terms that define particular entities that are richer in information have a rare text. These entities are called named entities, which more clearly refer to terms that mascot real life objects like places, people, organizations which are often called by proper names. A weak approach could be to find these by looking at noun phrases in texts in documents [9]. Named entity recognition also called as entity chunking or entity extraction is a very known technique used in information extraction to identify and segment the names of entities and categorize them under predefined classes[3kn]. Custom entity recognition extends the capabilities of NER allowing you to recognize a new unsupported entity type as of pre-established generic entity kinds. This implies the expansion to recognizing substance sorts such as LOCATION, DATE, PERSON, etc. it can be also used to examine documents and bring out entities such as product codes or company-specific entities which suit one's specific requirements [10]. Chatbots have made users life much simpler. Many of them have really good conversations with the chatbots. Chatbots need the huge amount of information work as intended. They need to store into the system. When the required information is missing the chatbots does not work as expected. Voice enabled chatbots are really helpful in keeping up a conversation in a natural way. Our users can speak about their symptoms and the chatbots use the stored information to give an accurate output.

III. PROPOSED METHODOLOGY

The proposed system can be used in home or any place to know our disease. As the quality of the content is increased it enhances the efficiency of model which can be included and it will make the system more efficient and improve its Conversation learning system by providing more options for stable and human like Conversation. The purpose of This survey is to examine recent studies focused on deep learning NER solutions to promote the development of new researchers' Comprehensive knowledge of the field. From gauging purchase intent to answering questions about IT issues, chatbots are on track to play a major role in the contemporary enterprise [10].

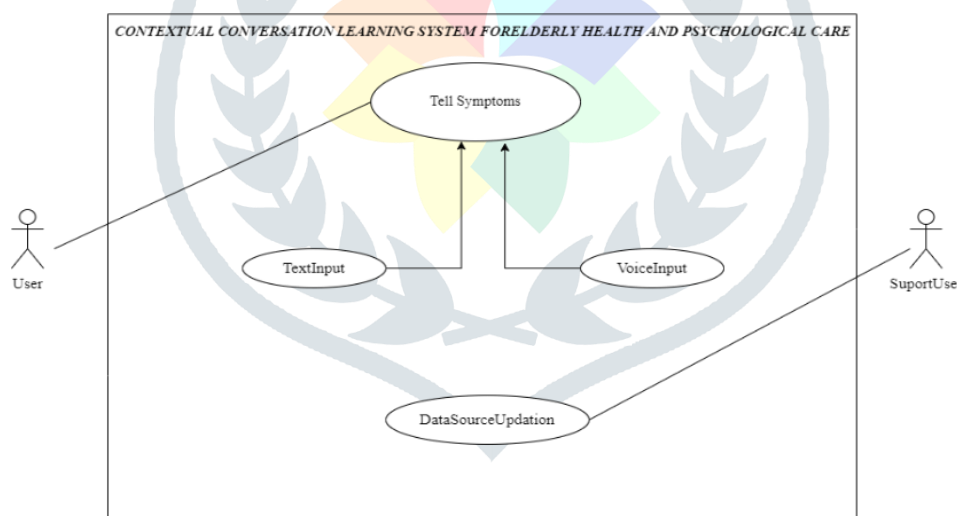


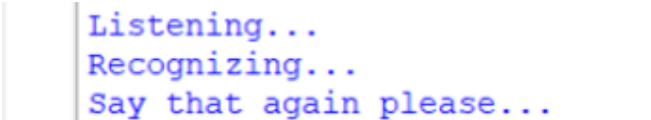
Fig. 1 Working of the proposed system.

Required Libraries

- | | |
|----------------------|-------------|
| 1.Pyaudio | 2.Pyttsx3 |
| 2.Speech Recognition | 4.Wikipedia |

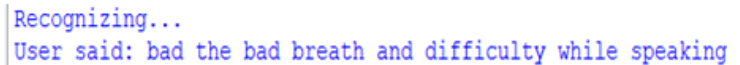
IV. RESULTS AND DISCUSSION

4.1 Output Screenshots



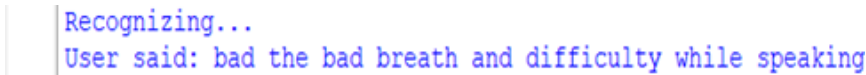
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Listening...
Recognizing...
Say that again please...
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Fig1.5 Error message



```
Recognizing...
User said: bad the bad breath and difficulty while speaking
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Fig1.4 Recognizing voice and showing the recognized text.



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Recognizing...
User said: bad the bad breath and difficulty while speaking
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Fig1.4 Recognizing voice and showing the recognized text.

4.2 Conclusion

The proposed system helps to identify early symptoms of deadly diseases and an early diagnosis may help for a healthy recovery. Therefore, the system is helpful for people irrespective of age. The voice assistant on the system is mainly designed for elderly people because it makes the system appear more friendly to them. For the future, there're a number of updates that can be made to the system, in terms of new technologies as well as new features. For example, online doctor's consultation and so on. This offered method is utilized in variety of conversation contexts and it could be comfortably Transformed where artificial neural networks can be restored by memory networks for the sake to increase performance and attain more sustainable and effective. Many conversations material can be combined to enhance consistency of the templates, and more buttons, such as addition of more data can be used to make the prototype more practical and efficient.

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