



An Automatic Chatbot System Based on Synonym Dictionary

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Abstract: Interactive College Enquiry powered by AI and the web Chatbot is a simple online application that tries to provide college-related information. At this point, our chatbot comes to the rescue. A chatbot is frequently considered as one of the most promising methods for artificial intelligence-based communication between humans and machines. It is a software programme that uses natural language processing (NLP) and deep learning techniques to conduct an online chat conversation via text. In the form of a GUI, it offers direct communication with a live human agent. By asking a few questions, this AI chatbot confirms the user's current location. It analyses the user's query and extracts the relevant database entries. The deep learning techniques employed in this chatbot are responsible for effectively comprehending the user intents and avoiding any misunderstandings. The chatbot responds to the user's query request with the most relevant response once the user's intent has been determined. The user then receives all of the information regarding the colleges as well as their numbers.

Keywords: Admission Enquiry, Chatbot, Machine Learning.

I. Introduction

Nowadays, most universities provide services to student candidates through a corporate website, which is hosted by the institution itself. Higher education services require a university to provide consistently high-quality service in order to ensure that students and candidates are satisfied with their educational experience. The provision of consultation services and information to student candidates, in addition to the provision of high-quality education, is essential for achieving student candidate satisfaction. The use of a web-based student candidate service system, as well as social media, is one of the tools available to student candidates to help them meet their informational requirements. In tandem with the expansion of the world of web services, many of the

most recent technological breakthroughs in web development have centred on the creation of websites that place a strong emphasis on user convenience. There are several types of student candidate services available on the website itself, including phone service and live chat support, among others. All available resources are intended to facilitate communication between people; as a result, it takes time to respond to questions from student candidates. Furthermore, an increase in web visitors may result in an increase in questionnaires and waiting times, resulting in a decrease in overall client satisfaction.

II. Literature Survey

The project is about interaction between users and chatbot which can be accessed from anywhere anytime. The chatbot can be easily attached with any university or college website with few simple language conversions. Chatbot provides various information related to university or college and also students-related information. The chatbot can be used by anyone who can access the university's website[1].

In this paper we provide the design of a chatbot, which provides an efficient and accurate answer for any query based on the dataset of FAQs using Artificial Intelligence Markup Language (AIML) and Latent Semantic Analysis (LSA). Template based and general questions like welcome/greetings and general questions will be responded using AIML and other service based questions uses LSA to provide responses at any time that will serve user satisfaction. This chatbot can be used by any University to answer FAQs to curious students in an interactive fashion[2].

In this paper, we propose and describe a new recommendation approach, centered primarily on the use of a custom chatbot which can be linked to Moodle's platform using a web configuration. A chatbot is an automated

communication tool, based on intents and designed to emulate communication capabilities and conduct a conversation with individuals. The proposed system should be able to answer learner's queries in real-time and able to provide a relevant set of suggestions according to their needs[3].

In the present paper, we have focused on designing a textual communication application namely chatbot in the educational domain. The proposed chatbot assists in answering questions provided by the users. To develop the system, we have employed an ensemble learning method as random forest in the presence of extracted features from our prepared dataset. Besides, the validation system offers an average F-measure 0.870 score on various K-values under random forest for the proposed chatbot. Finally, we have deployed the proposed system in a form of telegram bot[4].

This project aimed to implement online chatbot system to assist users who access college website, using tools that expose Artificial Intelligence methods such as Natural Language Processing, allowing users to communicate with college chatbot using natural language input and to train chatbot using appropriate Machine Learning methods so it will be able to generate a response[5].

III. Proposed System

Universities nowadays provide the majority of their services through their corporate websites. In order to ensure student candidate satisfaction in higher education services, including admission services, a university must always provide excellent service. In order to achieve student candidate satisfaction, it is necessary to provide them with consultation services and information in addition to providing them with a high-quality educational experience.

With the rapid development of computer-based information technology, the joints of human life have undergone numerous changes. Artificial Intelligence (AI) is one of the most promising technological developments today (AI). By utilising artificial intelligence, the computer can perform certain tasks that would otherwise be performed by humans, such as robot chat. Robot chat is referred to as a Chabot system, which is a computer-based system that applies knowledge of human nature interaction to the computer (HCI). In order for computers to have intuitive abilities to realise conversations with their users using natural language, they must be programmed to do so.

System Architecture:

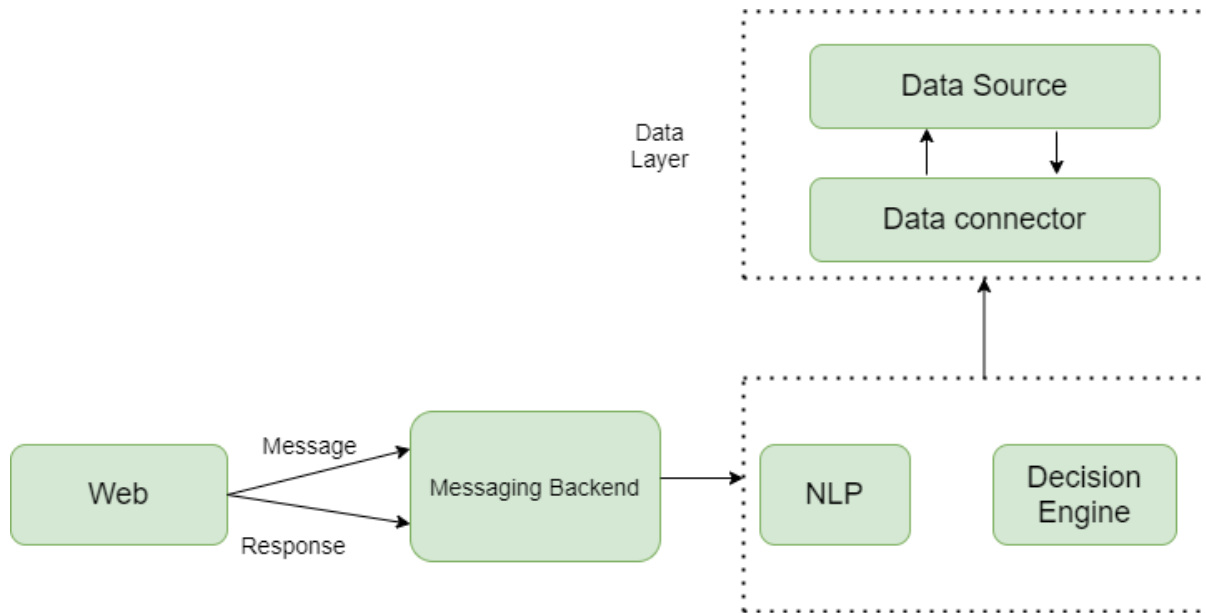


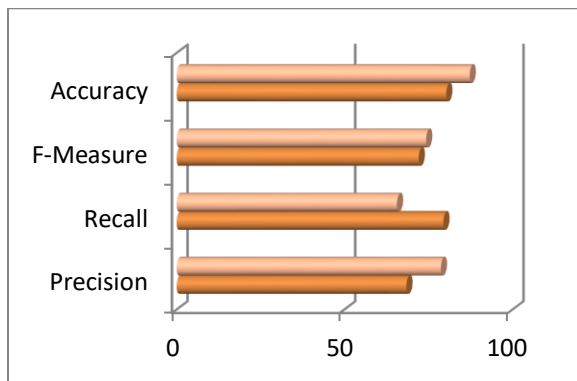
Figure 1. System Architecture

IV. Result and Discussion

Experiments are done by a personal computer with a configuration: Intel (R) Core (TM) i3-2120 CPU @ 3.30GHz, 4GB memory, Windows 7. The application is web application used tool for design code in Eclipse and execute on Tomcat server.

We compared the proposed cardiovascular disease prediction accuracy on number of samples and show the result graphically. Let see the following graph and table shows the Cardiovascular disease prediction accuracy result based on decision tree classification technique.

	Existing System	Proposed System
Precision	68.45	77.70
Recall	79.44	65.64
F-Measure	72.11	74.31
Accuracy	80.29	88.26



Conclusion

With the proposed approach, major flaws in current Chatbots, such as their inability to understand the relationship between entities and their properties, can be addressed and resolved. The proposed system successfully maps and retrieves data from a variety of sources. By utilising the findings of this study, we can continue to develop intelligent chat bots that can assist users in finding the appropriate information. It also assists users in obtaining answers without having to wait for the admin staff to respond. We are now able to successfully interact with ontology bots after receiving sufficient training from ontology bots. Voice recognition and text-to-speech capabilities will be added to our Chatbot in the future as part of its development.

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