



A CHAT BOT FOR COLLEGE WEBSITE BUILT USING POWER PLATFORM

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Abstract : These days, a lot of people use smartphones that are loaded with new apps, technology is advancing daily. These days, artificial intelligence is being used extensively in a wide range of sectors, from public relations and customer service to the manufacturing of products. Because there are a lot of chatbots and other online artificial intelligence (AI) systems available to assist individuals in solving their difficulties. Thus, we want to deploy an artificial intelligence (AI) virtual assistant that can respond to any question about education. This device functions as a machine for college-oriented intelligence. Students will get answers to their questions on college-related matters via this virtual computer. A chatbot uses data stored in its database to recognise phrases and decides how to respond to a question by itself. The chatbot designed to answer college inquiries will be constructed with an algorithm that interprets user messages and assesses queries.

Keywords— Artificial Intelligence, Database, Intelligence Machine.

1.INTRODUCTION

A chatbot is a type of web application that requires an active network connection to function. It facilitates communication between humans and computers online. Designed to mimic human conversation, a chatbot interacts with users much like a human. A college chatbot specifically responds to inquiries related to college topics such as administration, management, examinations, placement, canteen services, stationary supplies, and similar matters.

Creating bots involves using various programming languages and technologies, such as Artificial Intelligence Markup Language (AIML) and Natural Language Processing (NLP). AIML, which relies on XML, allows developers to define rules for the bot to follow. These rules dictate the bot's behavior in response to user input. On the other hand, NLP facilitates seamless communication between humans and bots by understanding and processing natural language.

In this project, an power virtual agent is employed to handle simple queries specifically related to college-related topics. If a query falls outside the scope of college-related topics, the bot will not respond. However, a significant drawback is the time-consuming nature of writing queries for different scenarios.

Queries are typically presented in text form, using the English language, and the bot responds in text as well. Users may feel as though they are interacting with college staff due to the bot's intelligent responses, which are facilitated by Power Agents technology

RELATED WORKS:

The creation and use of web-based chatbots for college inquiries is examined in article [1], with a particular emphasis on the informational function that chatbots provide to provide for inquiries about colleges. It looks at how Artificial Intelligence (AI) language and Natural Language Processing (NLP) libraries can be used to make human-machine dialogue easier. Furthermore, the poll underscores the importance of natural language processing (NLP) in empowering machines to comprehend and react to human language, thereby promoting smooth user-chatbot interactions.

2.EXISTING SYSTEM

In In the past, inquiring about specifics and other information required students to physically visit institutions, which was a laborious and time-consuming process for both parents and students. These days, substantial advancements in technology have made it easier to make changes in the educational system. Nowadays, everything can be done easily online. It used to be necessary to visit in order to submit even a modest application, but this paradigm is quickly changing. The manual process of gathering applications was labor-intensive and manpower-intensive. Over time, a number of tools and methods have been developed to address these issues.

- More time consuming
- Delay in response
- In the existing system we have only limited number of predefined queries.
- It cannot understand specific problems and cannot perform task for the client.

3. PROPOSED SYSTEM

A chatbot that answers questions from students about college-related issues and makes it easier for them to obtain pertinent information about colleges and news letters that offer technical information on a regular basis. Power Virtual Agents and Power Automate facilitate a simplified creation procedure that does not require much coding knowledge. Power Virtual Agents, Power Automate, a part of the Microsoft Power Platform, offers an easy-to-use interface that requires little or no code, making it possible to design and use chatbot quickly

3.1.ADVANTAGES

Power Virtual Agents offers a user-friendly interface, enabling users to effortlessly create chatbots without requiring in-depth coding expertise thanks to its simple and intuitive design. Such accessibility extends to a diverse user base, encompassing educators, administrators, and even students themselves.

No-Code/Low-Code Development: Power Virtual Agents empowers developers to craft chatbots through a visual interface, eliminating the necessity for intricate coding. Such an approach diminishes development time while facilitating swift prototyping and iteration of the chatbot's functionality.

Integrated within the Microsoft Power Platform: Power Virtual Agents seamlessly merges with other Microsoft applications like Dynamics 365, Power BI, and Microsoft Teams, facilitating convenient access to data and resources, thereby streamlining the development and deployment process.

Scalability: Power Virtual Agents empowers users to effortlessly scale their chatbots to manage a substantial volume of inquiries. The platform efficiently juggles numerous conversations concurrently, ensuring students promptly receive responses to their queries.

Natural Language Processing (NLP): Power Virtual Agents incorporates NLP functionalities, enabling the chatbot to understand and provide responses to natural language inquiries from students. This enhancement enriches the user experience by fostering more conversational interactions.

24/7 Availability: Once deployed, the chatbot is available 24/7 to assist students with their inquiries, regardless of time zone or location. By guaranteeing students have access to support whenever necessary, this elevates overall satisfaction and engagement levels.

Overall, Power Virtual Agents simplifies the process of creating and deploying chatbots for college-related inquiries, offering a user-friendly solution that enhances accessibility and efficiency for both students and educational institutions.

WEBSITE DEVELOPMENT

A college website built with HTML, CSS, SQL, and PHP becomes more functional and interactive when a chat component is integrated into it. The website acts as a thorough resource with details on sports, student affairs, college administration, and more.

The user-friendly and visually appealing structure and style of the website are guaranteed by HTML and CSS, facilitating effortless navigation and access to different areas. Effective data administration is made easier by SQL, which securely stores and retrieves student data, academic records, and sports-related data.

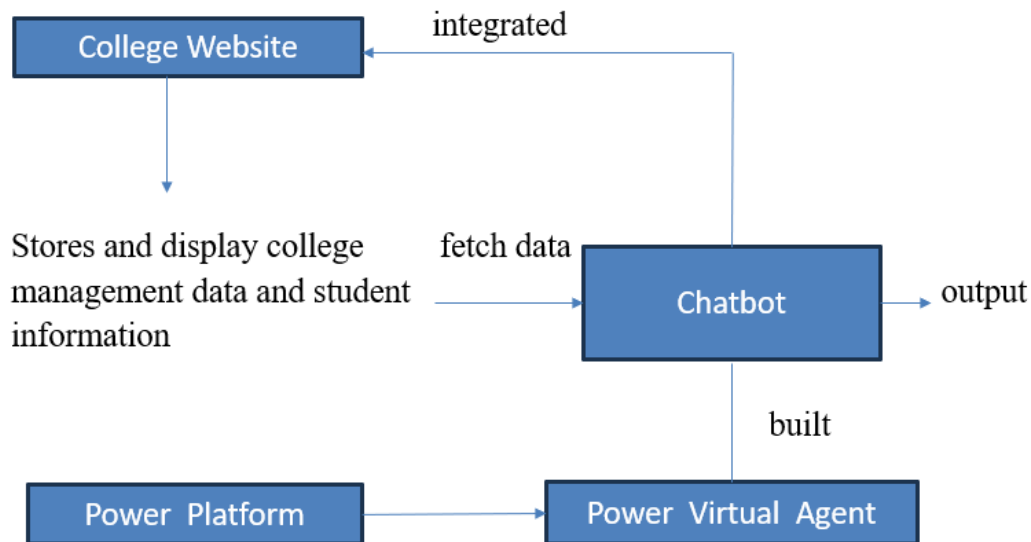
PHP makes dynamic web development possible, facilitating the addition of interactive elements such as chat rooms and forms. Instant messaging between users is made possible by the establishment of real-time communication channels, allowing for socializing, event discussions, and academic help.

The website offers thorough coverage of extracurricular activities like sports and clubs, catering to a wide range of interests. The website enhances the whole educational experience by promoting community interaction, collaboration, and support among students, teachers, and staff through the addition of a chat component.

4.SYSTEM ARCHITECTURE

In this section, the basic steps regarding how we provide answers to the user queries .

Given below is the system architecture of this chat-bot:



5. IMPLEMENTATION

All of the actions necessary to switch from the outdated manual method to the suggested chatbot and news letter system are included in the implementation process. For a dependable solution to be provided that satisfies the needs of the organization, this shift is essential.

The college website has integrated the chatbot, which is a web application. "How can I help you?" appears as a pop-up prompt on the user interface. When users click it, a chat window comes up where they may ask questions about the college. After then, the chatbot reacts appropriately. The bot gently reroutes users who ask queries unrelated to the college, stating things like "Please ask questions regarding the college only."

With this implementation, the chatbot will be seamlessly integrated into the college website, offering users an easy-to-use interface for finding information and getting help about the college.

A news letter, which is an online program, is a frequent source of technical information or articles related to open AI (Chatgpt).

User: This will enable all user duties. The user will receive pertinent responses from the chatbot when he asks a question about college.

Chatbot: This automated system receives user input, looks for pertinent answers, and displays the results to the user when the query and the output match.

5.1 POWER PLATFORM:

Low code tools are available on Power Platform to enable the creation of virtual assistants, apps, and much more. There are numerous applications on this power platform, including Power Virtual Agent, Power Automate, and Power Apps. With Power Platform, people with little to no coding experience may design solutions that meet their specific business requirements. It enables the creation and implementation of intelligent chatbots that can communicate with people through a variety of channels and perform automated tasks and answers in accordance with predetermined scenarios.

5.2. POWER AUTOMATE :

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5.3. POWER VIRTUAL AGENT:

One component of Microsoft Power Platform is Power Virtual Agent. With power virtual agents, users can simply create AI-driven chatbots without requiring extensive coding or development expertise. Chatbots may be designed to undertake a variety of activities, respond to inquiries, and automate processes, improving human-to-person communication and interaction. Numerous of the most significant problems with bot creation in the market today are addressed by Power Virtual Agents. It speeds up response times and offers tailored responses. With Power Virtual Agents, you can build robust AI-powered chatbots to handle a variety of tasks, from answering frequently asked queries to handling problems that call for in-depth discussions.

6. RESULTS

In this paper we have seen how the proposed system is implemented and how it works

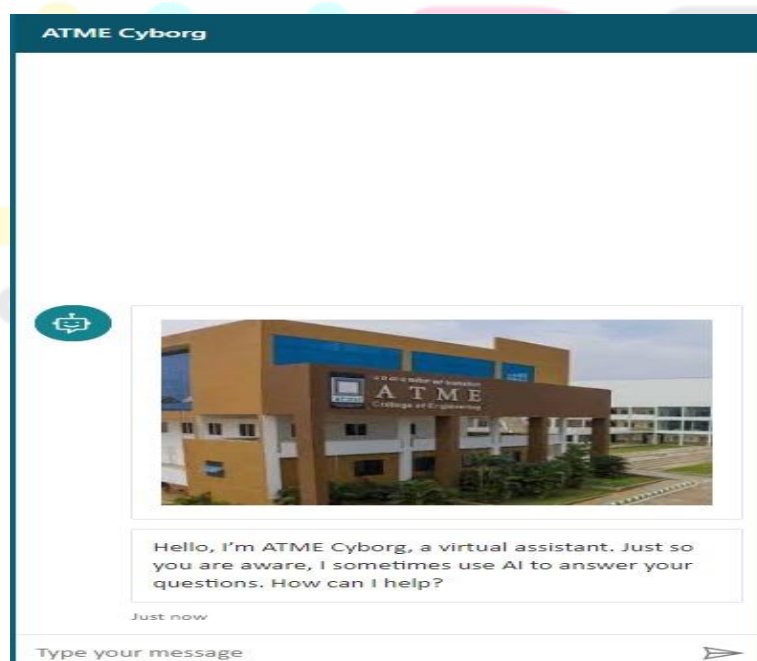


FIG: Interface of the chatbot

Conclusion:

In conclusion, a major step forward in applying artificial intelligence in educational institutions has been made with the creation and deployment of a chatbot for college website interactions that makes use of Power Virtual Agents and Power Automate. With this study, we have shown how AI-powered virtual assistants can effectively handle college-related inquiries, improving accessibility and user experience for students overall. Through the proper utilization of these technologies, we have developed a College Oriented Intelligence machine that can comprehend and provide appropriate answers to user inquiries. The chatbot can assess queries and respond with precision and speed thanks to the smooth integration of AI algorithms with databases. The ongoing development and improvement of these AI-powered solutions has the potential to improve student support services even more and make college community interactions more seamless in the future. The application of AI in educational settings will surely become increasingly important as technology develops, helping to suit the varied demands of students and improving their entire educational experience.

Future Enhancements:

- 1. Multilingual Support:** Provide multilingual support to accommodate a multicultural student body by allowing the chatbot to converse in various languages according to user choices.
- 2. Customized Suggestions:** Utilize machine learning algorithms to examine user behavior and inclinations, enabling the chatbot to offer tailored suggestions for educational programs, resources, and extracurricular pursuits.
- 3. Integration with Learning Management Systems (LMS):** By integrating the chatbot with the college's LMS, you may improve student productivity and engagement by giving them easy access to course materials, assignment due dates, and grades.
- 4. Improved Natural Language Processing (NLP):** Constantly enhance the chatbot's NLP algorithms to make it more intelligent and capable of handling intricate requests, resulting in more precise and pertinent user interactions.
- 5. Integration with Student Information Systems (SIS):** By integrating the chatbot with the college's SIS, administrative procedures can be streamlined by giving students access to their financial information, course schedules, and academic records.
- 6. Mobile App Integration:** Make a specific mobile app for the chatbot with extra capabilities like push alerts, offline accessibility, and easy interaction with other student-used apps.

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