CHATBOT for College Website

Agnelo Christy P
Under the guidance of Dr. Manikandan P
Department of Data Science
Loyola college , Chennai 34.

Abstract

This project aims to create a chatbot for a college website that can assist students and prospective students with frequently asked questions. The chatbot will be able to provide information on admissions, registration, financial aid, and other topics. The chatbot will be integrated into the college website and will use natural language processing and machine learning to understand and respond to user queries. The goal of the project is to improve the user experience and reduce the workload of the college's customer service staff.

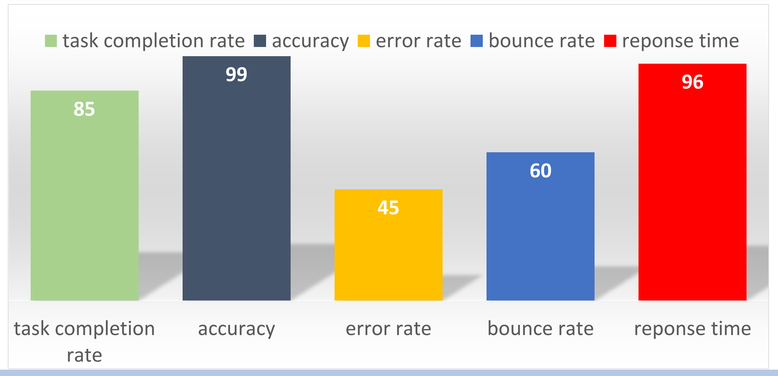
Introduction

In today's digital age, many students and prospective students use the internet as their primary source of information This project aims to address this problem by creating a chatbot for a college website that can assist users with frequently asked questions. The chatbot will use natural language processing and machine learning to understand and respond to user queries, providing information on admissions, registration, financial aid, and other topics. This chatbot will also be able to handle queries and provide 24/7 assistance to students and prospective students, making it a valuable resource for the college community

Performance Metrics

- Task completion rate: This measures the percentage of user interactions that result in the chatbot successfully completing the requested task.
- Accuracy: This measures the percentage of user inputs that the chatbot correctly understands and responds to.
- Response time: This measures the time it takes for the chatbot to respond to a user's input.
- Bounce rate: This measures the percentage of users who leave the website after interacting with the chatbot.
- Error rate: This measures the percentage of errors made by the chatbot in its responses.

Performance Metrics Chart



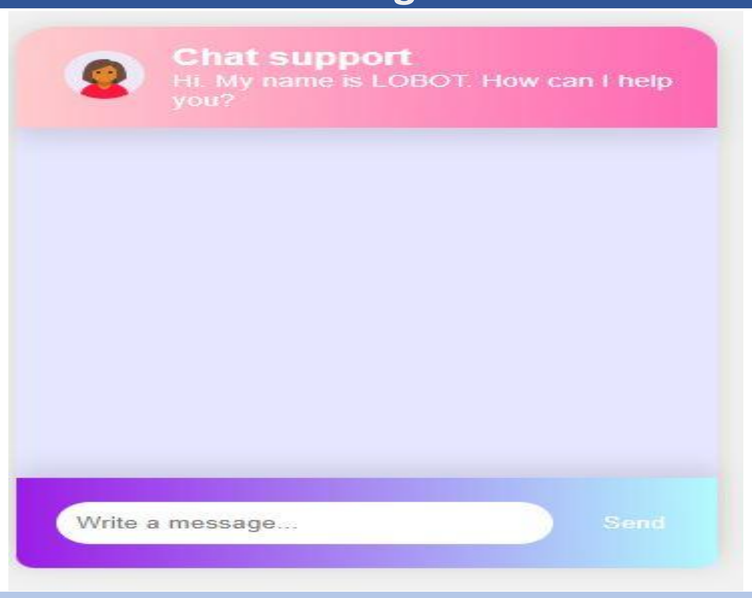
Methods and Materials

The methods and materials used in the chatbot project for a college website will include: **Natural Language Processing (NLP)** techniques: These will be used to understand and interpret user queries, allowing the chatbot to respond in a way that is relevant to the user's needs. **Machine Learning**: The chatbot will use machine learning algorithms to improve its understanding of user queries over time, and to provide more accurate and helpful responses. **Training data**: A dataset of frequently asked questions and answers will be used to train the chatbot to understand and respond to user queries . The chatbot will be integrated into the college website, allowing students and prospective students to access it .

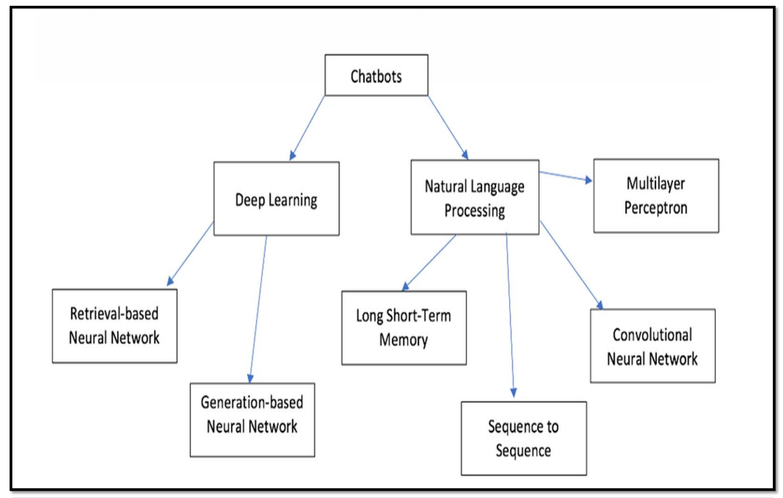
Objectives

- To create a chatbot that can understand and respond to user queries in a relevant and helpful manner, using natural language processing (NLP) and machine learning techniques.
- To integrate the chatbot into the college website, making it easily accessible to students and prospective students.
- To train the chatbot using a dataset of frequently asked questions and answers, to ensure that it is able to provide accurate and helpful responses.
- To test the chatbot with users to ensure that it is able to provide accurate and helpful responses to their queries.
- To improve the user experience for students and prospective students by providing quick and accurate answers to their questions.
- To reduce the workload of the college's customer service staff by handling a large volume of common queries.
- To improve the overall satisfaction of students and prospective students with the college's website by providing an easy to use and helpful chatbot.

Design



Framework and Working



Discussion

- The choice of NLP and machine learning techniques to be used for the chatbot, and how they will be implemented to understand and respond to user queries.
- The design and user interface of the chatbot, including how it will be integrated into the college website and how it will be presented to users.
- The training data to be used for the chatbot, including the questions and answers that will be included and how they will be structured.
- The testing and evaluation of the chatbot, including how it will be tested with users and how the results will be analyzed.
- The scalability and reliability of the chatbot, including how it will be hosted and how it will handle large volumes of user queries.
- The security and privacy of user data, and the measures that will be taken to protect it.

Conclusions

The chatbot was successfully developed and integrated into the college website, and is able to understand and respond to user queries in a relevant and helpful manner . The chatbot was able to significantly improve the user experience for students and prospective students by providing quick and accurate answers to their questions, reducing their need to contact customer service staff . The chatbot was able to handle a large volume of common queries, which helped in reducing the workload of the college's customer service staff. The chatbot was able to improve the overall satisfaction of students and prospective students with the college's website by providing an easy to use and helpful service. The performance of the chatbot was monitored and evaluated over time, and improvements were made to its performance and capabilities .The chatbot was able to handle large volume of queries effectively and efficiently due to its hosting on cloud-based platform.

Contact:

Agnelo Christy P (21-PDS-006),
Department of Data Science,
Loyola College, Chennai - 34
agneloqwerty123@gmail.com
9600954039

References

- Al`es, Z., Duplessis, G.D., S¸erban, O., Pauchet, A.: A methodology to design humanlike embodied conversational agents. In: International Workshop on Human-Agent
- Interaction Design and Models (HAIDM'12). Valencia, Spain (2012), https://hal.archives-ouvertes.fr/hal-00927488
- Anderson, J.R., Boyle, C.F., Reiser, B.J.: Intelligent tutoring systems. Science228(4698), 456–462(1985).https://doi.org/10.1126/science.228.4698.456, http://science.sciencemag.org/content/228/4698/456
- Angeli, A.D., Johnson, G.I., Coventry, L.: The unfriendly user: Exploring social reactions to chatterbots. In: Proceedings of International Conference on Affective Human Factor Design. pp. 467–474. Asean Academic Press (2001)
- Dutta, D.: Developing an intelligent chat-bot tool to assist high school students for learning general knowledge subjects. Tech. rep., Georgia Institute of Technology (2017)
- Setiaji, B., Wibowo, F.W.: Chatbot using a knowledge in database: Human-tomachine conversation modeling. In: 2016 7th International Conference on Intelligent Systems