Interactive AI Chatbot Integrated with School Website

Team members:
- Ayush Bhakat
- Faiza Reza
- Keshav Balwant Deoskar

Introduction:
A chatbot is an artificial intelligence (AI) software that can simulate a conversation (or a chat) with a user. A chatbot is often described as one of the most advanced and promising expressions of interaction between humans and machines.

Objective:
The “Zee Bot” aims to make interactions between parents and the school easier. The purpose of this chatbot is to make it possible for parents, and students, to get answers to their questions without having to meet or directly contact school officials. This would ease the workloads of school officials and provide prompt, precise answers to parents and other users.

Scope:
The chatbot can provide information relevant to all groups of people.
For enrolled students, it can provide exam syllabi and timetables, academic calendar, email and zoom IDs of teachers, school events etc. Students may also send leave notes and other emails to school officials directly through the chatbot.

For those interested in enrolling, it can display admission related info, give details of the school fees, school uniform, location of the school etc.

It can also display other information and media such as weekly school assembly videos, records of COVID-19 cases etc.

Tools used:
Programming languages used -
1. Python
2. HTML
3. CSS
4. Javascript

The Chatbot was built using the Rasa Open Source (Python), and integrated into the website using HTML, CSS, Javascript. The website was built using the same.

Working Methodology:
Our chatbot is custom built using artificial algorithms that analyzes and understands the user’s queries and gives appropriate answers to invalid questions.The user can raise questions by using buttons or voice to which the bot can reply through text/voice making it interactive.If the

user asks an invalid question that is not recognised by the bot, the bot will give a standard response.

How is Data Analysed?

- In technical terms, the chatbot takes the user's messages and internally converts them into lists of individual words [Tokenization].
- Then, the root meaning of these words is extracted [Lemmatization], following which they are assigned to different categories based on the intent (what the user is trying to ask).
- Then each category gets paired with the most logical response which is selected using the 'confidence level' of the intents, and the bot sends a response.

How is Data Collected?

After every conversation, the bot stores the new data (words encountered) and identifies which category they fall under (intent) for future use.

Contribution/Impact:

It would benefit both parents and school officials in the following ways:

1. It would be available to parents 24/7.
2. A larger number of doubts could be answered in a more efficient manner.
3. It would lighten the workload of school officials.
4. It gives real time response which helps save time and effort of the Parents and the School.
5. Can be accessed anywhere with any device, without the need to download a school app.

Conclusion:

Introduction of chatbot to a school website will undoubtedly bring in a different approach to interaction between the school and parents. It can help to reduce the number of calls and emails and at the same time reduce any gap in communication between the school and parents. It would have many benefits, and could prove to be an incredibly useful project.