

Human Chatbot Interaction

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Abstract: Chatbots, are also known, present a new way for individuals to interact with computer systems. The technology at the core of the rise of the chatbot is natural language processing (“NLP”). Recent advances in machine learning have greatly improved the accuracy and effectiveness of natural language processing, making chatbots a viable option for many organizations. A simple chatbot can be created by loading an FAQ (frequently asked questions) into chatbot software. The functionality of the chatbot can be improved by integrating it into the organization’s enterprise software, allowing more personal questions to be answered.

Keywords: Chatbot

1. Introduction

The Artificial Intelligence have been a wide subject of attention in our technical community. From then, various chat agents have been initiated, been worked upon, and destroyed. It is conventional agents used to interact with the user on some particular topics in understandable language. Normally, any Chatbot comprises of the ability to reply to answers to some particular fields and questions set according to it. To provide a good platform to Chatbots, web services were provided to be deployed on the internet for education purpose, site guidance, client services etc. “Human chatbot interaction for company (photocorp)” project will be built using Artificial Intelligence algorithms that will analyse user’s queries and understand the user’s message. The system will use artificial intelligence algorithms to give appropriate answers to the user. If the answer is found invalid, then system declare the answer as invalid can be incorporated. Artificial intelligence will be used to answer the customer’s queries. The customer will get the appropriate answers to their queries. The answers will be given using the built-in artificial intelligence algorithms. Customer’s won’t have to go to the showrooms to make the enquiry. Chat Bot project will be built using artificial intelligence algorithms that will analyse user’s queries and understand user’s message. This system will be a web application which will provide answers to the queries of the customers.

2. Proposed solution

Python is a software that provides user-friendly interface to make the connection easier and convenient with the internet

providing valid and reliable web services. We’ve created a sample chatbot using the same with twitch as an online platform which provides a chatbot platform to the clients who are online. Web based platform provides a vast intelligent base which can be helpful in simulating problem solving for humans.

Taking in account of the user’s requirements, this bot is created using Python as a source. We’ve created a database db.sqlite3 file which includes the main buffer where we stored the message to be printed on the bot to the user. As it creates a socket to another file which acts as a socket connecting the twitch.tv to our program file importing HOST, PORT, CHANNEL and PASS (which are provided by the server to us). We have used django framework of the python. Here, the socket file connects the host value to the program importing socket from the library. The server provides ideal channel and password that the user can join online.

Now, we create another component to initialize the values to the buffer creating temporary string. “import string” must be used in python to include the properties of strings. After the initializations are done, we declare sendmessage across the socket we’ve already created to make a successful join room function. Further, we create a persistence loop to create an infinite loop which allows running my function without errors.

```
while true  
persist=true
```

And now let’s run on chatbot once on the command prompt (console window) before running through the server and correct it before-hand. This will allow you to prevent your program to get crashed. And finally, we define a read file consisting of 2 critical user.

```
getUser: to get the user who’s connected  
getMessage: to get the message someone typed
```

But, sometimes twitch.tv PING us. This means if we won’t PONG it back, it’s going to seal our account and shut the socket down.

Thus, the chatroom gets connected to our console window when we call “Run.py” from the command window. The message types by the user is displayed on our console and hence

processed.

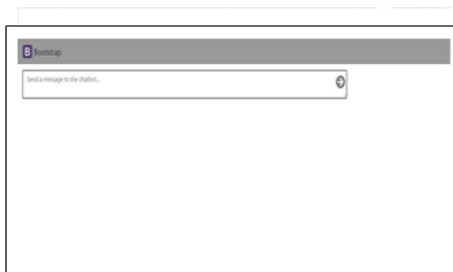
If “Hello” in message:

```
sendMessage(s, “How’re you doing?”)
```

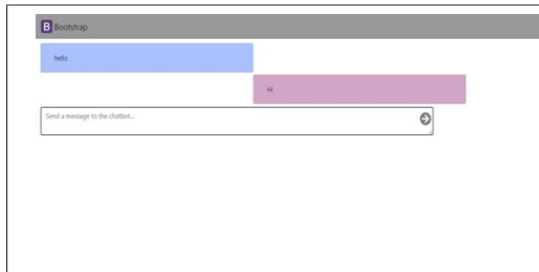
Every chatbot is differentiated on the way they convey their language to the user. Thus, being a user-friendly one.

3. Result

To demonstrate our approach, we have developed a web based application. This application can be used to chat with the bot through voice and text also.



In the home screen, we have navigation option for two different activities, first we can start communication with the bot using our voice and in the second we can communicate with the bot using text messaging like another messaging apps we are using.



4. Conclusion

The main objective of the project is to develop an algorithm that will be used to identify answers related to user submitted questions. The need is to develop a dataset where all the related data will be stored and to develop a web interface. The web interface developed will have two parts, one for simple users and one for the administrator. A background research took place, which included an overview of the conversation procedure and any relevant chat bots available. A database will be developed, which will store information about questions, answers, keywords, logs and feedback messages. A usable system will be designed, developed and deployed to the web server. Chatbots, on the contrary, show only a bit of information at a time, and can advance the interaction with a user based on user input at each specific point. Our Chatbot will give assurance of correct answers to users. Our Chatbot is mainly play a very important role for online company.

References

- [1] M. Dhaniya, (May 2017), “A Tool of Conversation: Chatbot”, International Journal of Computer Sciences and Engineering, Volume-5, Issue-5.
- [2] Vibhor Sharma, Monika Goyal, Drishti Malik, (April 2017), “An Intelligent Behaviour Shown by ChatbotSystem”, International Journal of New Technology and Research, Volume-3, Issue- 4, Pages 52-54.
- [3] Balbir Singh Bani, Ajay Pratap Singh, (January 2017), “College Enquiry Chatbot Using A.L.I.C.E”, International Journal of New Technology and Research (IJNTR), Volume-3, Issue-1, Pages 64-65.
- [4] AM Rahman, Abdullah Mamun, Alma Islam, (Dec 2017), “Programming challenges of Chatbot: Current and Future Prospective”, IEEE Region 10 Humanitarian Technology Conference (R10-HTC), Dhaka, Bangladesh.