International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395-0056
Volume: 07 Issue: 05 | May 2020 www.irjet.net p-ISSN: 2395-0072

ARTIFICIAL CONVERSATIONAL ENTITY

B. Prasanna Rani[1], G .Maithri Madhurya[2], G. Divya Sri[3], M. Ramesh[4], Ch. N.D.S. Sindhuja[5], K. D. Sai Kumar[6]

[1]B. Prasanna Rani, Assistant Professor, Dept. of Computer Science, VSM College of Engineering, Andhra Pradesh, India
[2]G. Maithri Madhurya, Dept. of Computer Science, VSM College of Engineering, Andhra Pradesh, India
[3]G. Divya Sri, [4]M. Ramesh, [5]Ch. N.D.S. Sindhuja, [6]K. D. Sai Kumar

---

Abstract - *Ace is a computer program that converse with human using artificial intelligence in messaging platforms. User Conversations for software applications can come in a variety of formats, ranging from command-line, graphical, web application, and even voice. Ace can communicate with real person behaving like a human. This system will be provides answer to the query of the student very effectively.*

Ace is a text-based user interface, allowing a student to type Question and receive Answer. Bots are usually Provides Proactive services, storing previous information (and perhaps even conversation) in order to display functionalities. Students just ask their query to the Ace which is similar as chatting. If the answer is found invalid, then there is a system to declare the answer as invalid.

Key Words: *JavaScript, SQLLite, Python (PyCharm), Query, Reply*

1. INTRODUCTION

Artificial conversational Entity, The name itself derives it is a Conversational platform which is used to exchange of messages (nothing but information) about a college. This platform uses some Artificial Intelligence techniques to provide information very fast and Accurate. The process in which we use this software is just like a chit-chatting. We can ask questions to this software, it just acts like another person to provide our information. Whenever a situation comes that, the student want any information regarding the college, instead of searching the entire college website and noticeboards, he/she will ask a query in this ACE. It takes your question and give appropriate result within fraction of seconds. It can provide information based on the students Query and it gives response to that query if and only if the providing information is available in that software, so the person who enters the data should update every time.

Artificial Conversational Entity is used to provide information to any question related to college asked by user. According to users input, ACE will processes the query/question and provide information to the user. In case the query asked by user is not present in the database then it will store that question in a file which will later on seen by the administrator of software and all the questions would be provided with the answers. Ace is an artificial human, which the system communicate with students. This is a formal text based (typed) conversation for college. Chat bot can run on a browser, it can accessed through internet only. The age have embedded knowledge which helps them to identify the uses query and give a response to it. User can ask any question related to college information through this web application. This will be help the user to be updated with the important notices. Not much time will be wasted by the user to search for the important notice

1.1 Modules and their Description:

The ace was Developed using python, we use modules, every module has their own functionality based on the process of the algorithm working behind the each module**.** The system comprises of 3 modules as follows:

- Personal Query Response System
- AIML Response System
- Query Analysis and Response System

Description:

Personal query response system (Module 1): Upon receiving personal queries like CGPA, attendance, etc., the authenticity of the user is checked through user-id and password. If the user detail is invalid, an appropriate response is sent.

AIML Response System (Module-2): If the student enters a query to this Ace, it checks the appropriate answer in this AIML file. If the answer is found, it try to give result, otherwise displays "invalid input".

Query Analysis and Response System (Module-3): If the users input is valid, it sent that input query as an argument to the algorithm named as NLP, it checks the confidence of that argument, if confidence is>0.5 it display the result. Otherwise it saves the input as a log file**.** Finally this module is used to check similarity of query through NLP, the modified input to check its similarity with the questions of a predefined question- set, whose answers are provided.

2. Review of Literature

2.1 Existing System

Emanuela Haller and Traian Rebedea, Desiging a chat-bot that simulas a Histotical Figure. IEEE Conference Publications, July 2013. There are many applications that are incorporating a human dialog, but in most of the cases the knowledge of the conversational bot is stored in a database created by a human expert. However, very few researches have investigated the idea of creating a info bot with an artificial character and personality starting from web pages or plain text about a certain person. This paper describes an approach to the idea of identifying the most important facts in texts describing the life of an historical figure for building a conversational agent that could be used in middle-school CSCL scenario.

Problem with current scenario

- Traditionally, the chat bot system is not known to people who are not more into the technology.
- Even if there exist a chat bot system, it is not much accurate in proving the answer or solutions.
- This process consumes lot of time as well as money as the customer needed to visit college if its miles away from home.
- Also, this process may lead to communication gap between student and college.

Hardware Requirements:

- i3 Processor Based Computer
- 3GB-Ram
- 64GB Hard Disk
- 1.1 GHz speed

Software Requirements:

- Windows
- HTML, JavaScript
- Python (PyCharm)
- SQLite

2.2 Proposed System

- Pre-processing is carried to the input text to standardize the input as per the systems requirement.
- Based on the keywords used in the text, appropriate context is recognized.
- A Student bot project is built using artificial algorithms that analyzes user's queries and understand user's message.
- This Ace just acts as a web application which gives response to the query of a student.
- Students ask query through this Ace, just likes a chatting.
- Students can chat in text based format, no other Formats are allowed.
- With the help of Artificial intelligence, to give response for the query.
- Ace will give appropriate answers to the user queries.
- If the answer is not found, it displays '' I am unable to answer it".
- Admin can view invalid answers on their screen, and also add a specific proper response to asked questions
- The student can enquiry any college related activities through this Ace.

2.3 System Framework

(A) System Design

The System Design Narrates Architecture of the system and Subsystems. The motive of system design is to enlarge the system architecture layout particulars and useful data, and it must be necessary for implementing the data elements. The main role of system design is to validate and deploy the system. Some common tools of this system design are context diagram and flow Diagram. The system design is essential because it will give the entire description about the project.

Principles of Chat Bot Design:

1. Don't pretend to be a human

Playing bait-and-switch with a user can make them feel that they have been duped, or that they don't understand how a system works; both are bad user experiences. Don't pull the rug out from under your users. This means not using "is-typing" indicators or artificial delays to make it seem more human. On the contrary, bot messages should be styled differently and be clearly labeled in a way that communicates they are not human. This doesn't preclude us from giving the bot personality.

2. Keep it incredibly simple

Bot conversations should be bounded to very particular subjects and follow linear conversation routes; we avoid complicated branching paths. We're not trying to create a general, self-aware A.I. here. It's okay to expose and explain limitations. BASAAP.

Individual bot designers shouldn't have to account for tricky failure cases. Users will tire of complicated passages of dialogue

3. Respect the chat medium

One advantage of smart messaging apps is that we can strip away a lot of apps and interface and reduce the interaction to a simple chat UI. It just acts alike a call-response procedure so that the student can call (asks) the question and the Ace will response (giving answer) to the caller (student).

It would therefore be pointless to turn around and drop an entire web application directly into a conversation. Keep everything native to the conversational back-and-forth.

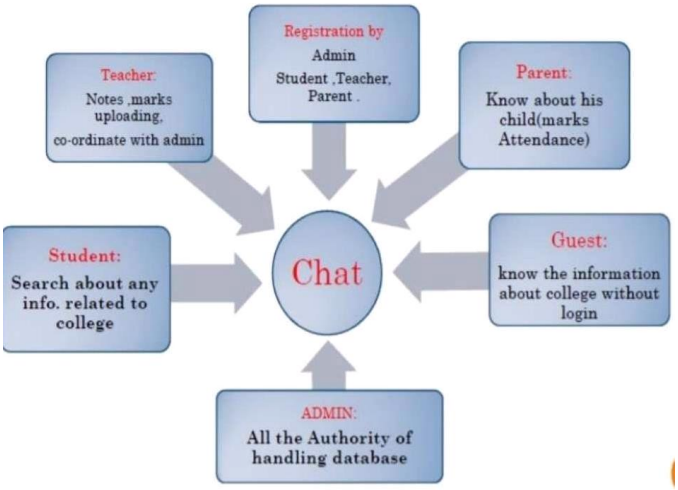
4. Optimize for the end user

Ace will use some of the Ai techniques, so it gives the best and effective answer. Bots should be used to improve the end user experience, not just to make life easier for customer support teams. Ace can check and prove itself to give better and quick response than human. A System should Query themselves would a human be better for the end user? If the answer is yes, you shouldn't be using a bot. Bots should not attempt to replace what humans are good at; rather they should attempt to improve what humans are slow at. Machines should work; people should think.

5. Use sparingly

Ace Conversations should be short and precise. It should be impossible to get into a protracted back and forth conversation with a bot; anything above two inputs feels laborious.

(B) System Architecture



3. Conclusions

This project was successfully completed within the time span allotted.

The project ARTIFICIAL CONVERSATIONAL ENTITY has been developed in Python. All the modules are tested separately and put together to form the main system. Finally, the system is tested with real data and everything worked successfully. Thus, the system has fulfilled the entire objective identified. The system had been developed in an attractive dialogs fashion. So, user with minimum knowledge about college can also operate the system easily. It will make easy interactions between users. The speed and accuracy are maintained in proper way.

The main objectives of the project were to develop an algorithm that will be used to identify answers related to user submitted questions. A database will be developed, which will store information about questions, answers, keywords, logs and feedback messages.

ACKNOWLEDGEMENT

Commencing with our final year project **"ARTIFICIAL CONVERSATIONAL ENTITY"** which would be the decider of all the efforts throughout these four years was a bit hesitant, but the dilemma was soon put to stake by the kind of support we received throughout the building of our idea into work. To begin with we would like to thank our Project Guide **Prof. B.PRASANNA RANI** who kept guiding us and informing about the execution of the project.

We would like to thank our Project Co-ordinator **Prof. H. B. Sale** for his valuable guidelines and for always encouraging us.

We would like to thank our Project Co-ordinator **Prof. H. B. Sale** for his valuable guidelines and for always encouraging us. We are grateful to our Head of Department **Prof. K. SUREKHA** for boosting our confidence. And last but not the least we would like to express our sincere gratitude to respected Principal Sir **K. BALAJI** for allowing our little mind to think in different directions and help us broaden our horizons by making available all the necessary amenities needed in the working of our project.

REFERENCES

1. Q Vera Liao, Matthew Davis, Werner Geyer, Michael Muller, and N Sadat Shami. 2016.

What Can You Do?: Studying Social-Agent Orientation and Agent Proactive Interactions with an Agent for Employees. In Proceedings of the 2016 ACM Conference on Designing Interactive Systems. ACM, 264–275

2. Ran Zhao, Tanmay Sinha, Alan W Black, and Justine Cassell2016.

Automatic Recognition of Conversational Strategies in the Service of a Socially-Aware Dialog System.

3. Joseph Weizenbaum ELIZAâˇAˇTa computer program for the study of natural language communication between man and machine. Commun. ACM 9, 1 (1966), 36–45.

4. Robert J. Moore, Rafah A. Hosn, and Ashima Arora. 2016.

The Machinery of Natural Conversation and the Design of Conversational Machines in American Sociological Association annual meeting.

5. Chatbot Using Gated End-to-End Memory Networks Jincy Susan Thomas1, Seena Thomas2 Issue: 03 | Mar-2018

6. CORDULA: Software Requirements Extraction Utilizing Chatbot as Communication Interface Edwin Friesen Frederik S. Baumer Michaela Geierhos

BIOGRAPHIES

B. Prasanna Rani working as Assistant Professor – Computer Science Engineering in VSM College of Engineering, Ramachandrapuram and project guide to the Employee Performances analysis Management system.

G. Maithri Madhurya pursuing B.Tech final year in the stream of Computer Science Engineering in VSM College of Engineering, Ramachandrapuram and take the responsibility as a Team Leader.

G. Divya Sri pursuing B.Tech final year in the stream of Computer Science Engineering in VSM College of Engineering, Ramachandrapuram and team member of this project.

M. Ramesh pursuing B.Tech final year in the stream of Computer Science Engineering in VSM College of Engineering, Ramachandrapuram and team member of this project.

CH.N.D.S.Sindhuja pursuing B.Tech final year in the stream of Computer Science Engineering in VSM College of Engineering, Ramachandrapuram and team member of this project.

K.D.Sai kumar B.Tech pursuing final year in the stream of Computer Science Engineering in VSM College of Engineering, Ramachandrapuram and team member of this project.