

# Artificial Intelligence Based Chat-Bot

Sumit Wailthare<sup>1</sup>, Tushar Gaikwad<sup>2</sup>, Ketkee Khadse<sup>3</sup>, Pooja Dubey<sup>4</sup>

<sup>1,2,3</sup>B.E Student, Dept. of Information Technology, Nagpur Institute of Technology, Nagpur, Maharashtra, India

<sup>4</sup>Professor, Dept. Of Computer Science & Technology, Nagpur Institute of Technology, Nagpur, Maharashtra, India

\*\*\*

**Abstract** - A Chat-bot is computer program which conduct a conversation via auditory or textual method. A Chabot are software agent that interacts with the user for conversation. Chatbot typically serve text based user interface allow input from user and receive text as well as auditory from output. Information of chatbot are stored in database which is consist database who provide by owner of shop and requirement of user. This system will be provided answers to the query of the user very effectively. User just have to put there requirement to the chatbot which is used for conversation .the system will used the AI algorithm to give appropriate answer to the user. If the answer is invalid then system declares answer is invalid. This invalid answer can be deleting or modified to by admin. One of the most popular engine are used for regular expression base natural language processing engine called verbot. This makes it easy designer chat-bot & automates conversation with user.

**Key Words:** User Friendly, Information management System, Desktop Application, Product Efficiency.

## 1. INTRODUCTION

### 1.1 Basic Of Chat Bot

Chatbot also known as Chatterbots or chatter robots are software agents that simulate an entity, usually a human counterpart of vague or specifically defined characteristics, with whom the user can interact in a conversation. One of the first and main goals of Chatbot had always been to resemble an intelligent human person and make it hard or impossible for the other party of the conversation to understand their real nature. With the development of more and more Chatbots of various architecture and capabilities the purposes for their usage has widely broadened. These Chabot can prove sufficient to fool the user into believing they are "talking" to a human being, but are very limited in improving their knowledge base at runtime, and had usually little to no means of keeping track of all the conversation data.

Chatbots, which are software agents with an artificial intelligence that allows them to understand the user input and provide a meaningful response according to pre-compiled knowledge. The chatbots can be pedagogical agents or personifications of historical figures who will be able to talk about their life and work. A Chat-bot is a conversational agent that interacts with users using natural language. Numerous applications of Chat-bots such as Customer Service, call canters etc. If a person is new in the

town and want to roam the malls in town he will face many difficulties. He have to ask many people to guide him to the mall many of them will take advantage and mislead him as he is new. He will waste his time as well as more money as he will be misguided. In this project we are using Artificial Intelligence to make robot which will help him/her to guide to the mall. It will help to find ways to the outlets he want to visit, show the movie's show timings in the mall, show the discounts on a particular item in entire mall. This will be done in verbal and textual form.

### 1.2 Verbot Engine

Currently Verbot only works in Microsoft Windows Verbot is coded almost in C# language and requires Microsoft .Net 1.1 or higher to execute. The main process which makes all these happens is verbot4engine.exe (VERBOT) and agentsvr.exe (Microsoft Agent).

Whenever a knowledge base is clicked or added it will be loaded into the verbot player's memory now when you type (chat) with verbot your inputs will be compared to the inputs in the VKB or CKB files, if the searching finds a match the programs returns the output from the rule where that particular input was found, if the input wasn't found then the engine returns the default outputs from the '\*' (wildcard) provided it was already scripted, if not then verbot won't say anything now the output string is parsed with the agentsvr.exe and is converted into voice (if the output contains msagent tags it will also parsed by agentsvr.exe to reproduce the animations or special functions) in the same way advanced features like 'learn', 'mem', C# commands are also parsed by the verbot engine.

## 2. RELATED WORK

[1] One of the most popular languages for the definition of a chatbot knowledge base is artificial Intelligence Markup Language (AIML). The interpreter must guarantee the compliance of properly formed AIML documents, perform all the necessary pre-processing duties for the correct usage of the chatbot and ensure the correctness of both patterns matching of user input and chatbot response. A chatbot is software that is used to interact between a computer and a human in natural language. Naturally, it can extend daily life, such as help desk tools, automatic telephone answering systems, to aid in education, business and e-commerce. In general, the aim of chatbot designers is to build tools that help people, facilitate their work, and their interaction with computers using natural language; but not to replace the human role totally, or imitate human conversation perfectly.

[2] Presently Chappie is being used as a routing agent wherein it can classify the requirement of user into one of the services provided by business based on the first few chats and then transfer it to an agent expert in that service. It uses natural language processing (NLP) to analyses chats and extracts intent of the user with a score similar to the likes of WIT1. Then it uses this information and AIML (Artificial Intelligence Mark-up Language) to make a conversation with the user. Through Chappie, trying to redefine chat experience in an automated manner. The novelty lies in the way we define our system as not merely a response generator but an intelligent interface to a response generator. Then we try to bring counting as a way to avoid repetitions. Overall Chappie is performing decently, but it needs more sophisticated algorithms to extract intent and classify chats more accurately.

[3] Provides answer to the query of the student very effectively. Students just have to put their query to the bot which is used for chatting. The system will use the artificial intelligence algorithms to give appropriate answers to the user. If the answer is found invalid, then some system to declare the answer as invalid can be incorporated. These invalid answers can be deleted or modified by the admin of the system. 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 database 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.

[4] This paper describes an approach to the idea of implementing web-based artificially intelligent chat-bot as a personal assistant of the user, which stimulates setting and initiating meetings of user with his clients. The exchange of information happens through email conversations whereas its evaluation happens through natural language procession and natural language generation and AIML files. Using pattern matching algorithm, a system that can act as a virtual personal assistant to plan user's work and schedule his meetings was successfully designed. In terms of the efficiency of the system to respond within a stipulated time period, which achieved overall 70% efficiency, it can be concluded that the system is capable enough to be implemented in the practical world.

### 3. PROPOSED SYSTEM

In order to provide a proper guidance to the visitor of a mall there an virtual robot who guides us with then navigation and according to the latest discount going on in the shop. Another advantage concerning the path is solved as we can search for the shop and get the path. In addition, it will provide us accurate path without wasting our time. The main objective of the system is to utilize our time and do not waste it. This is practical, reliable and eliminates time loss. A further objective is to present a system that can accurately evaluate where we can go for shopping and which path to follow. If the chatbot was trained on real conversations,

rather than just using generalized forms of the most common sentence types, I hypothesize the chatbot could generate more interesting conversation.

This would still be Case Based Reasoning but rather than using generalized data, the program would store past conversation explicitly, and mimic a given screen name personality. The chat-bot would only reply using responses learned from the training corpus, and would thus have more emotional and personality content than other chatbots.

### 4. SYSTEM ARCHITECTURE

1. **Home Screen** -The Home page is the starting page of the application. It has a "Welcome" button to be click in for entering into the application.

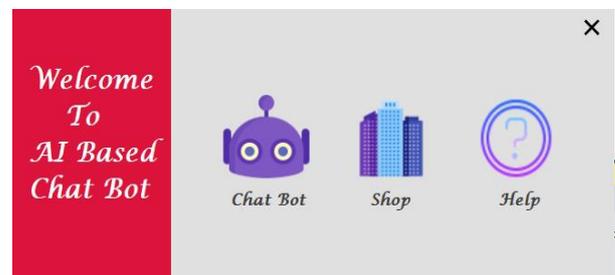


Figure 1: Home

2. **Login Activity** -This enables the user to login to the application so as to perform activities. The shop owner can login by entering their email and password. If the user enters the wrong credentials, then he/she is not allowed to login. In case the user is new user for this application then he can register himself by choosing "not a User? Click to Sign Up".



Figure 2: Login

3. **Register Activity** - This lets the Shop owner to register with the application. The shop owner has to register by giving a shop name, mobile number, email address, valid password and an address. All the shop owner details are stored in a database. This enables the shop owner to login.

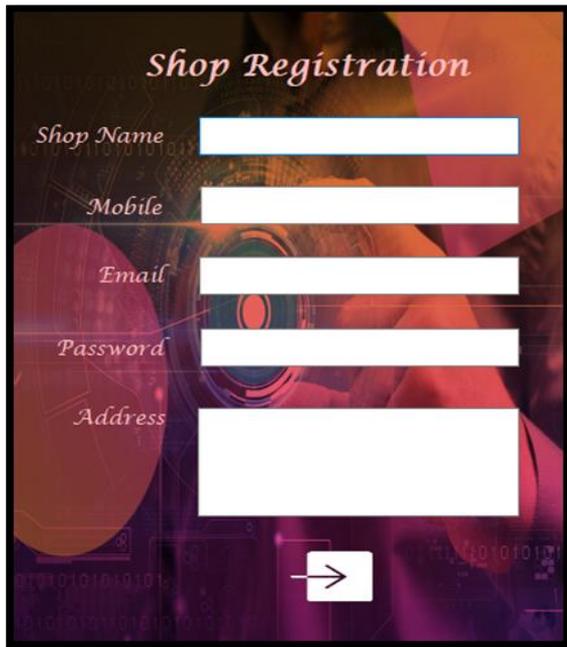


Figure 3:Registration

**4. Product Discount Activity** -This allows to the shop owner to add product with discount.

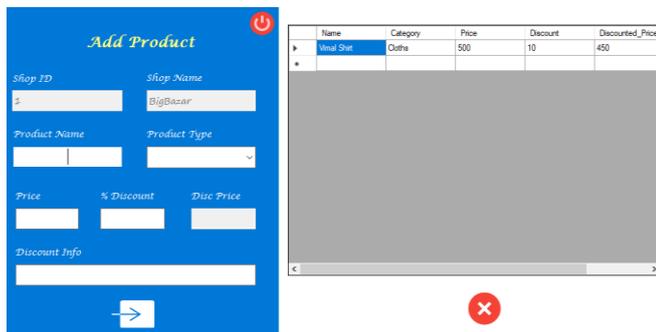


Figure 4: Add Product

**5.Search Product Discount Activity**- This allows to the users to search products with discount by product name or product type.

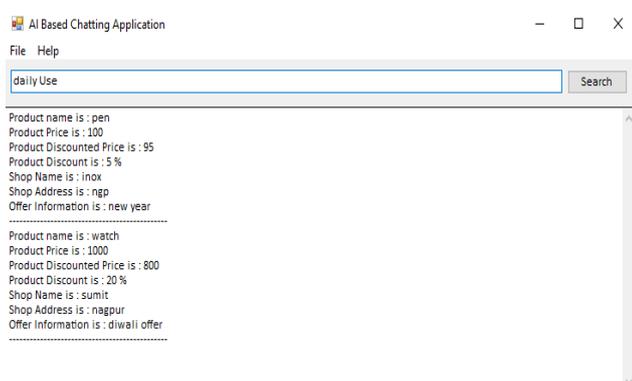


Figure 5:search

### 3. CONCLUSIONS

We have surveyed several Chabot systems which succeed in practical domains like education, information retrieval, business, e-commerce, as well as for amusement. In the future, you could ‘imagine chatterbots acting as talking books for children, chatterbots for foreign language instruction and teaching chatterbots in general’.

### REFERENCES

- [1] Nikita Hatwar “AI BASED CHATBOT” International Journal of Emerging Trends in Engineering and Basic Sciences (IJEEBS) Volume 3, Issue 2 (March-April 2016).
- [2] Pratik Salve “College Enquiry Chat Bot” International Journal on Recent and Innovation Trends in Computing and Communication ISSN: 2321-8169 Volume: 5 Issue: 3.
- [3] Aniket Dole “Intelligent Chat Bot for Banking System” International Journal for Research in Applied Science & Engineering Technology (IJRASET) Volume 4 Issue IV, April 2016.
- [4] Sarthak V. Doshi “Artificial Intelligence Chabot in Android System using Open Source” Program-International Journal of Advanced Research in Computer and Communication Engineering ISO 3297:2007 Certified Vol. 6, Issue 4, April 2017.
- [5] BayuSetiaji” Chatbot Using A Knowledge in Database” International Conference on Intelligent System, Modling and Simulation 2016.

### AUTHORS



Sumit Walthare  
 Nagpur Institute Of Technology



Tushar Gaikwad  
 Nagpur Institute Of Technology



Ketkee Khadse  
 Nagpur Institute Of Technology