



Online Chatbot System

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ABSTRACT

A chatbot is a technique used in android and Web based technique. The basic feature of chatbot is, it replies properly for the queries given by the end user. We try to extract the best pairs of chatbot knowledge from online communication which leads to get knowledge more from a specific area, we used based classification by related threads. We give ranks for the pairs squirm from the online discussion. Finally we select top most N pairs for the chatbot knowledge which helps for better communication of end user and this

Keyword: Artificial Intelligence, Best Pair, Knowledge, Ecommerce.

I. INTRODUCTION

Chatbot is an agent conversation that gets interact the user and a domain, with simple language sentence for a specific topic [4]. User works with the chatbot for any information, many chatbot are available in internet for frequently asked questions or to start some new topics but has some websites has strict restrictions to access. The existing chatbots are ELIZA, PARRY, and LCC, in all these existing chatbots dialog management modules are present to control the knowledge base and process feature. Currently the templates used in chatbots are hand coded. Since it is hand coded, the knowledge bases needs move time and and also adaption of this is very difficult.

II. RELATED WORK

The initial Chatbot named as ELIZA follows keyword matching technique, it will take the input from the user and find out a specific pattern then it

retrieve the answer. If the particular keyword is not found, it will get more information from the user which makes user alive [2].

Artificial Intelligence Mark-Up Language (AIML) files are used to pattern matching. The main use of AIML is to have normal communication with the user. Hike android application uses Natasha for live assistance, it uses predefined intelligent way, it is an entertainment usage. If the user gets bored they can communicate via Natasha [5].

In all the above said existing system, ELIZA doesn't understand what it is saying. Based on the rules it will produce results. ALICE doesn't have the ability to learn and can only come with data that exist in its database [1].

III. PROPOSED SYSTEM

A Proposed System The in order to demonstrate the concept of the project we will design an E-

Commerce Website that has a catalog of products that can be browsed. The website itself is designed so it can be integrated entire with the chatbot. The website has traditional navigation options for the user if he or she desires to browse the website, in a courteous manner. It will also feature conventional search/filter options. This website will have an courteous chatbot that can be accessed from any page. The user can interact with the bot using Natural Language. The bot can make suggestions, give information or ask further questions to elicit further information depending on the user interaction. The bot has a minimum response time.

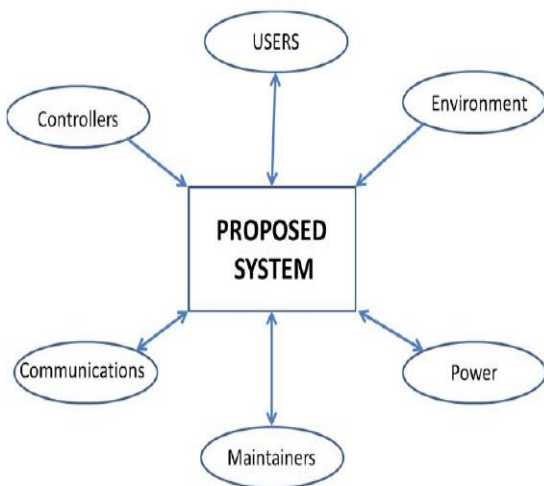


Figure 1. Proposed system

IV. INTERACTION WITH USER

The user can access the website through his/her android device and it will have a chat system with the bot. Any requirement of the user can be directly entered into the message window. The chatbot takes this input and matches it with the pattern matching programmed and it will give out responses. If the response that is returned is matching the needs of the user, he/she can click on ‘YES’ and the product will be added to cart. After this point, payment for the same can be made.

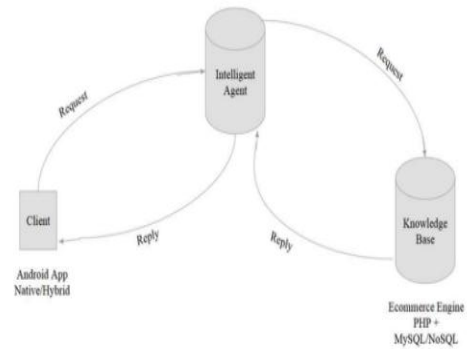


Figure 2. Three- Tire Architecture of chatbot

V. IMPLEMENTATION PLAN

The Implementation Plan of the entire system is divided into three tiers, which are to be done sequentially.

The architecture of the system is as shown in the figure 2.

Input controls or other widgets that draw some part of the UI. this hierarchy tree can be as simple or complex as you need it to be but simplicity is best for performance [9].

The Three-Tire Explained as follows:

5.1.Android: All user interface elements in an android app are built using View and ViewGroup objects. A View is an object that draws something on the screen that the user can interact with.A ViewGroup is an object that holds other View (and ViewGroup) objects in order to define the layout of the interface. android provides a collection of both View and ViewGroup subclasses that offer you common input controls (such as buttons and text fields) various layout models(such as a linear or relative layout).

5.2.Intelligent Agent: An agent will gather information and perform the necessary services without your immediate presence and on some

regular schedule. Typically, the agent program will use the parameters you have provided, will search all or some part of the engine, gather information you're interested in, and present it to you when you ask for it. A simplified architecture and working of the agent that will be used as

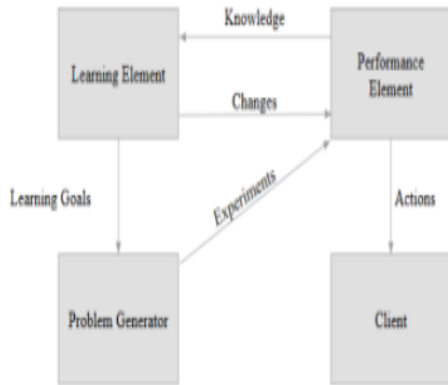


Figure 3. Architecture of Intelligent Agent

VI. COMPONENTS

There are two components website and Chatbot. they are integrated to provide a good user experience.

1. Website: The website is coded in HTML/CSS with PHP used for scripting. The website has a MySQL database that stores the product details and inventory.

2. Chatbot: The chatbot utilizes Rivescript, to fetch responses based on user input. Rivescript is a simple scripting language for giving intelligence to chatbots and other conversational entities. It's a plain text, line-based scripting language with goals of being simple to learn, quick to type, and easy to read and maintain. [11]

VII. WORKING

In order to implement the dynamic functionality, the server contains a PHP file that serves as a medium of interaction between the Chat Client and

the MySQL database. When a trigger that contains an object macro is called, the response is parsed and then executed by the Interpreter's Javascript Object handler. The response makes an AJAX request to the PHP page, and on receiving a response, displays it within the chat window. This response contains a hyperlink to the respective product pages of the suggested products.

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+ Hello

- Hello. I am a chatterbot. How can I help you?

Figure 1 Simple atomic trigger and response

User: Hello

Bot: Hello there. How can I help you?

User: Can you suggest a good phone?

Bot: Have you decided a budget?

User: 40,000.
    
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Figure 4. Sample conversation between user and the bot.

VIII. CONCLUSION

The Chatbot will use artificial intelligence and hence will learn the responses of the users resulting in increasing efficiency. Chatbot will have the ability to respond like human being hence it will ease the efforts that are required to be done by human.so, in this paper, we have planned to implement an Ecommerce engine based Chatbot which will attempt to improve the interaction of the user with E-Commerce engine.

Chatbot will store a set of responses, but also will take dynamic user input into account and thus its to provide relevant responses and product suggestions.

IX. REFERENCES

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