

Integration of Intelligent Conversational Software or Chat-Bot

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ABSTRACT : Chat-bot is a type of software designed to conduct a conversation via speech or text. They are expected to act as potential replacements in the place of human conversationalists. Chatbots are being adopted in greater numbers due to major strides in development of platforms and frameworks. The novelty of this project lies in the specific integration of chat-bots in the android scenario, identification of the newer challenges and possible future directions with this new integration. The main aim is to design and develop a generative hardware based prototype model of a chatbot to provide directions with the help of PIC microcontroller and MP3 modules that are managed via an android application, is proposed. Moreover, the proposed method is more efficient and bully-free. It further aims to have a variety of applications that are not as effective in its existing counterpart.

KEYWORDS: Chat-bot, PIC microcontroller, MP3 modules, bully-free chat.

I. INTRODUCTION

Chat-bot provides instant messaging framework so they are implied as a messaging service provider. Chat-bots provide conversational service to the user who interact with bots in an efficient way. A web application and mobile application which is easy for installation without any installation packages is the fastest and the minimal confusing way. They are easy to manage and distribute [1]. Chat-bots do not contain any online status and or last seen and call with other user they completely differ from other chatting application.

There are many different kinds of chatbots available. To retrieve general informations like general knowledge weather forecast etc open domain chat-bot are used. For example siri bot from apple or google assistant alexa bot, cortana bot from windows. For specific purpose closed domain chat-bot are used. They is used to answer to the questions on related domain. [2] Generative based chatbot otherwise called as a rule based chatbot that is based on the input the output is provided, since it is already data based these kinds of chatbots are used in proposed system Retrieval model based chatbot produces the output through defining the input by grammatical format.

Chatbot depends on machine learning, natural language processing and logics. From machine learning, to activate dynamic answers using mp3 modules with chat-bit supervised algorithm is used in proposed system. It uses speaker and mouth action with PIC microcontroller which is connected to a servo module that monitors the connected actions. Using chatbot app turning on or off the load is decided. If the load is on it will convey the respective answers for the respective questions using mouth action and speaker. The mouth action is connected to microcontroller using servo motor and speaker is connected to mp3 SD card based modulator. LCD is used to monitor the status of chatbot. It is used for a specific purpose and is hence more efficient and bully-free in nature.

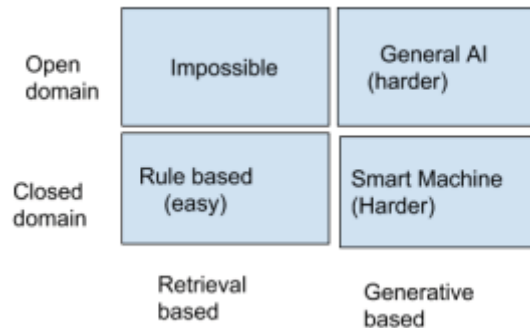


Figure 1 Chat bot types

II. LITERATURE SURVEY

Android-based intelligent mobile robot for indoor healthcare integrates cloud and offline speech recognition technologies to control the movement of the robot. It is based on Android features multiple wireless communication functions, which, via Internet and WLAN, may control the movement of the robot. Chat bots can also be applied in real time human life. They provide the information about the various existing chatbots and their history of evaluation, and the applications of various chatbots in different domains. They are applied in fields like medical, E-commerce, business, education, banking, customer services, entertainment, etc. Smart Living Using Bluetooth-Based Android Smartphone coupled with Bluetooth technology, which aims to exchange data wirelessly in a short distance using short-wavelength radio transmissions, is providing a necessary technology to create convenience, intelligence and controllability. This involves home lighting control system using Bluetooth-based Android Smartphone is proposed and prototyped. Artificial Intelligence based IoT Automation involves controlling devices with Google and Facebook. It enables the connection of people towards ubiquitous automation universe based on Social Internet of Things (SIoT) therefore bridging the gap between social networks. Chatbot-based healthcare service involves a knowledge base for cloud computing. Internet of Things involves a survey on Enabling Technologies, Protocols and Applications. The proposed framework enables a smooth human-robot interaction that supports chatbot healthcare service. The framework design comprises the following levels: data level, information level, knowledge level, and service level. Internet of Things is a survey on Enabling Technologies, Protocols and Applications. It delivers desired functionalities without having to go through RFCs and the standards specifications.

III. EXISTING METHOD

ALEXA BOT

Amazon Alexa, is a virtual assistant technology developed by Amazon. It is capable of voice interaction, making to-do lists, music playback, setting alarms, playing audiobooks, and providing weather, traffic, sports, and other real-time information, such as news. Several smart devices can be controlled by using itself as a home automation system. Users are able to extend the Alexa capabilities by installing "skills". Using a wake word (such as Alexa) most devices with Alexa allow users to activate the device; other devices require the user to push a button to activate Alexa's listening mode, although, some phones also allow a user to say a command, such as "Alexa" or "Alexa wake". Currently it is functioning only for certain languages.

DEVELOPED BY	Amazon
RELEASED IN	Nov 6,2014
OPERATING SYSTEM	Fire OS, iOS, Android
PLATFORM	Amazon Echo, Fire OS, iOS, Android, Cortana, Linux
AVAILABLE LANGUAGES	English, French, German, Japanese, Italian, Spanish, Portuguese, Hindi
TYPE	Intelligent personal assistant, cloud-based voice service

Table 1 Content table for Alexa bot



Figure 2 working of alexa bot

AI ASSISTANT

AI Assistant can also be called as **Google Assistant** is an artificial intelligence-powered virtual assistant developed by Google that is available on mobile and smart home devices. It can engage in two-way conversations.

A large variety of devices, including cars and for third party smart home appliances the assistant has been supported. The functionality of the Assistant can be enhanced by third-party developers. Users primarily interact with the Google Assistant through natural voice. Input through keyboard is also supported. AI Assistant is able to search the Internet, schedule events and alarms, adjust hardware settings on the user's device, and show information from the user's Google account. The AI Assistant will be able to identify objects and gather visual information through the device's camera, and support purchasing products and sending money, as well as identifying songs.

DEVELOPED BY	Google
RELEASED IN	May 18, 2016
PROGAMMING LANGUAGE	C++
OPERATING SYSTEM	Chrome, iPadOS, Android, OS, KaiOS, Linux,iOS

Table 2 Content table for AI Assistant

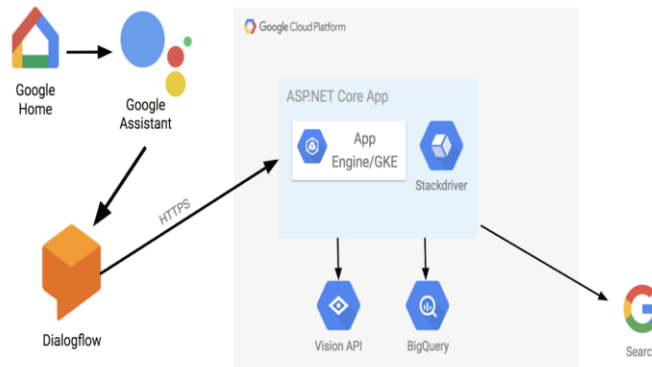


Figure 3 Working of AI ASSISTANT

V. PROPOSED METHOD

This proposed system involves in activation of dynamic answers using mp3 modules with a chat-bot. It uses chat-bot with a speaker and a mouth action coupled PIC microcontroller that is connected to a servo module which keeps monitoring the connected actions. The final output involves turning load on or off using a specifically designed application to control the chatbot. Thus it conveys the respective answers for our predetermined questions by fetching the appropriate answer through mp3 SD card based modulator thus involving faster and more efficient communication.

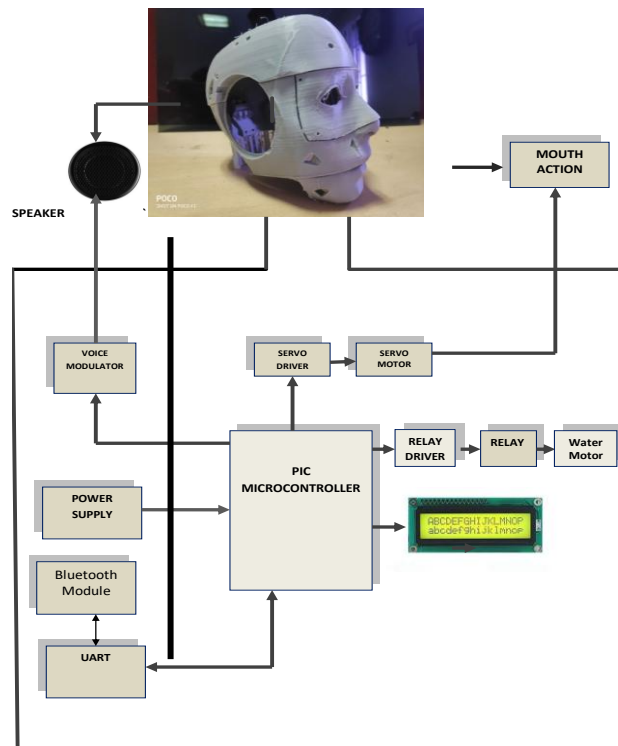


Figure 4 proposed system block diagram



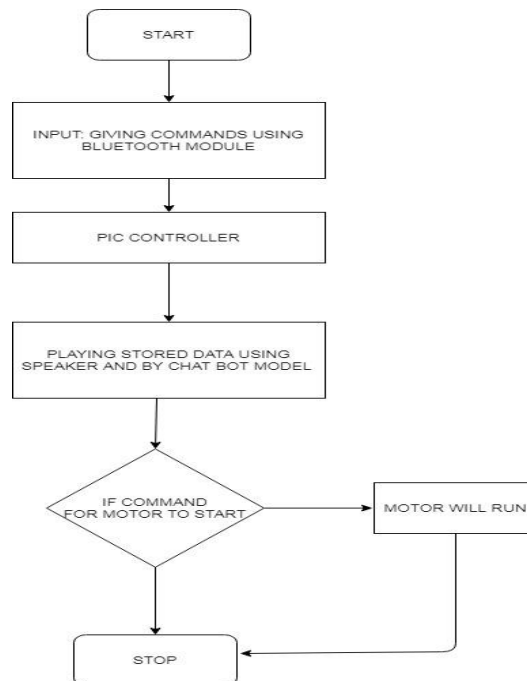
Table 3 Content table for Chat bot

OPERATING SYSTEM	Android
PLATFORM	Android
AVAILABLE LANGUAGE	English
PROGRAMMING LANGUAGE	Embedded C
TYPE	Personal assistant, generative hardware chat-bot

VI. CONCLUSIONS AND DISCUSSIONS

Proposed model can support interaction between the bot and the user only for the database, which is provided already. This model has drawbacks which includes frequent adaptation of the database, administrating of efficient memory space. We aim to eliminate the drawbacks in our future work through AI by storing all the required information to cloud so that better utilization of memory would allow the chatbot to operate in various sectors.

The entire model is operated by interfacing it with a Bluetooth module. Using this module input commands are passed to the chatbot. These commands are processed by the PIC controller. The predefined responses in the controller are targeted according to the questions asked. And the speaker plays the audio. If the command is sent the motor starts otherwise it does not start.



VII. CONCLUSION

In this project, the survey has covered a number of research papers that have focused specially on history of various existing chatbots and their applications in various domains. General purpose chatbots must be user friendly, easy to understand and simple. So that it can provide assistance on a daily basis to a host of industrial, education and healthcare services. From the above survey it can be concluded that improvement, design, implementation and development of various chatbots is taking place at an unpredictable rate.

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