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Article

A Nobel Approach Towards Designing A Personalizing bot to Reduce Human Efforts

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I N F O

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A B S T R A C T

A bot is "a computer program that completes automatic repetitive tasks." To expand on this definition, bots also act as the primary tool for autosmating interactions and meeting with website content on a large scale.

When thinking about bots, however, it's important to maintain viewpoint. Bots are a software that are becoming easier to implement. They can serve a variety of purposes and what they ultimately accomplish is dependent on the humans that control them. With BOT, one gets to understand with the ability to connect with them on a level where they feel understood, listened to and accommodated.

Keywords: BOT, Android, Automation, Silent Mode, General Mode

Introduction

Overview

A bot (short for "robot") is an automated program that runs over the Internet. Some bots run automatically, while others only execute commands when they receive specific input. A rapidly growing, benign, form of internet bot is the chatbot. A bot is an automated program.

Our bots are future-proof, scalable solutions that can be iterated as new needs arise. Automation has become a boom in recent years and so many developments are being made since. As the days passing by the work has been increasing and so does the innovation in automation. By this automation in the industry, the efforts of humans become less.

By taking this information about the BOT into consideration, the solution to the problem has been performed. An app has been made which will help in day to day activity of the user. The more personalized and tailored your bot, the better the experience for the user.

Bots can improve the user experience by reducing and sometimes eliminating the need for human assistance by allowing Artificial Intelligence (AI) to take over and solve problems.

Problem Statement

As the problem statement states, we have to design & develop a BOT which will reduce the human efforts of doing most of the things manually. That app must help the user in its day to day life and also helps in a busy schedule which can reduce its efforts. The BOT should be able to do all the things manually. That means it should be fully automatic.

Currently, automation is the need of the hour. Here an attempt is made to automate some needful work which an individual need to perform on a daily basis. This app is more convenient compared to some other apps. It will automatically notify the caller about the user's whereabouts. This app will show the user the details of the caller, it will notify the user if that was an emergency call or not, it will help the user by automatically rejecting the call and by

automatically sending the message to the caller. This app will help the user into the busy schedule by managing all the process itself without any human interaction in it.

Objectives

- The idea proposed in this technical research paper is dedicated to achieve some of the following objectives.
- To automate various processes associated to call receiving and call rejection.
- To reduce human efforts and enhance efficiency.
- To design and develop a system which will give rise to an automated communication system.
- To design a mechanism which must be user friendly and effective to accomplish the task of communication.

Scope

Presently, bots are gaining wide popularity among every type of organization. They existed with scientific logic in the past years. At present, it has gained much importance in enterprises. Such popularity has come from advances in artificial intelligence and machine learning.

Increased awareness: Many enterprises are adopting it as fast technology. It is helpful in several aspects such as security, marketing, communication, branding, and so on.

Based on the future: With several advancements, it has entered into the field of management within an enterprise. In the coming future, it will be a crucial tool present in every industry.

Literature Survey

The Android operating system provides a rich Inter-Component Cmmunication (ICC) method that brings enormous convenience. Nevertheless, the Android ICC likewise proliferations security risks. To address this problematic, a formal technique is proposed to model and detect inter-component communication behaviour in Android applications. Firstly, they generate data flow graphs and data facts for each component through component-level data flow analysis. Secondly, their approach treats ICC just like method calls. After analysing the fields and data dependencies of the intent, they identify the ICC caller and called, track the data flow between them, and construct the ICC model. Thirdly, the behaviour model of Android applications is constructed by a formal mapping method for component data flow graph based on Pi calculus. The runtime sensitive path trigger detection algorithm is then given. Communication-based attacks are detected by analysing intent abnormality. Then finally, they analyse the modelling and detection efficiency, and compare it with relevant methods. Analysis of 57 real-world applications partly verifies the effectiveness of the proposed method.[1]

The chatbot in Alibaba Group is called AliMe Chat which is an open-domain chatbot engine that integrates the joint results of Information Retrieval (IR) and Sequence to Sequence (Seq2Seq) based generation models.[2]

The communications between mobile apps are an important aspect of mobile platforms. Android is specifically designed with inter-app communication in mind and depends on this to provide different platform specific functionalities. Android Apps can either be designed with the help of Android SDK and using IDEs such as Android Studio or by using a browser-based platform called App Inventor. These two development platforms provide their own technique for inter-app communication in the same platform, however lack an established method of inter-app communication when apps are developed using the two separate development platforms. This paper provides the missing information required for the app communications and presents the method for sending and receiving arguments between apps developed in these two platforms. The paper also outlines the significance of the result, and examines their limitations.

It has been proposed that in earlier days humans have[3] dreamt about program that can act, talk, and think like humans hence latest technology includes software bots there are many bot hosting programs available like Alexa Echo Cortana Line Android Discord Cisco Spark Messages Viber Intercom Google Allow Twilio SMS Web bots. Users should always know what to expect, developers should make it clear to users, this ensures that users don't lose trust in the system.[4]

It has been proposed that, Bot detection - identifying a software program that's using a computer system is an increasingly necessary security task. Existing solutions balance proof of human identity with unobtrusiveness in users' workflows. Cognitive modelling and natural interaction might provide stronger security and less intrusiveness.[5]

It has been proposed a Taxonomy of software BOTS which focuses on observable properties and behaviours of Software BOTS, as well as the environments where bots are deployed and designed. Authors see this Taxonomy as a focal point for a discussion in our community so that together they can deeply consider how to evaluate and understand existing bots.[6]

It has been proposed that, Increasingly, bots are being used to coordinate work in open source software projects. As mechanisms that ensure the smooth functioning of open source software projects, bot activity influences how scholars and practitioners understand open source software development.[7]

It has been proposed that the framework is based on social context and analyses the changes in user need for different social situations. Such user behaviour data can be obtained if we have access to users logs or users Clickstreams (e.g.

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Recorded by social network platforms). The difference in user's behaviour can be obtained, for e.g. By analysing the image search logs of users to study the search intention of different users.[8]

After surveying all the research papers to the automation of BOT it is found that very less work is done in the field of phone communication, so here's an idea which is trying to put light on the topic.

Proposed Systems

1. This technology conducts tasks easily and in a fast manner as compared to human activity.
2. It is a technology which is replacing human tasks.
3. It has a good flow with the timings to perform tasks.
4. It helps to reach a huge customer satisfaction level.

Application Process

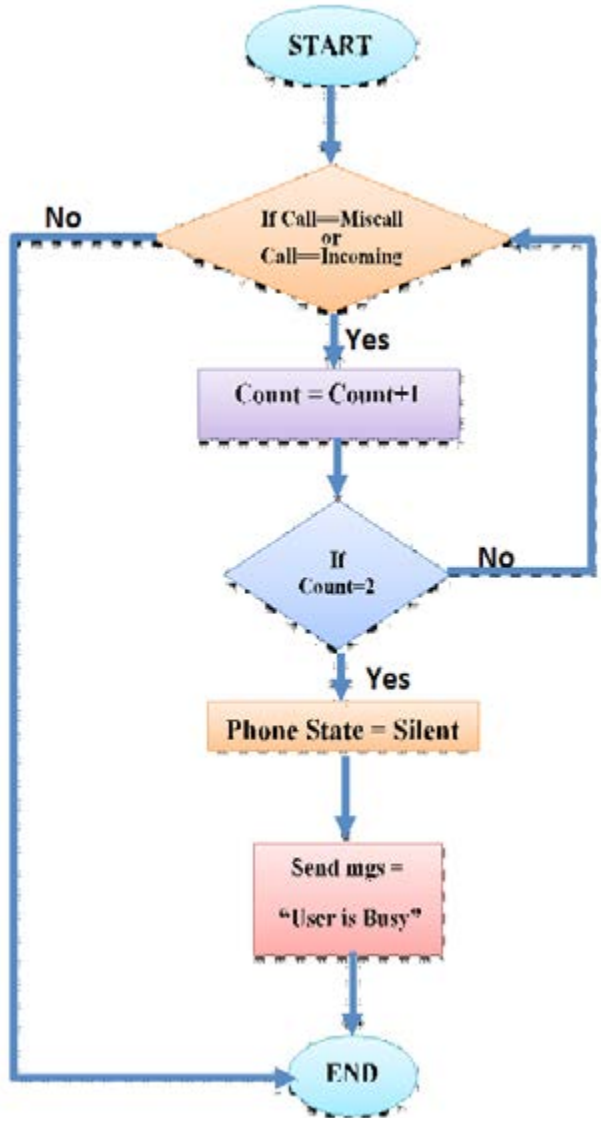

Figure 1.Flow Chart of an Application

As from the above fig:(1), it shows that, when the App will turned ON, it will read if there is any incoming call or miss call if there is no such log then, it will end the process else there will be two counts for incoming calls, after 1st call count, will start if next call comes just after 1st call then it will complete the count as both calls were unanswered and it will take phone from general to silent mode after two calls. If again the call comes from same phone number it will send caller message as "user is busy if it is urgent then, call two more times" after that if same phone number calls two more time there will be 2 more count and then app will understand that it is emergency and it will take phone from silent mode to the general mode this process will be executed for each different number.

Implications (Probable Outcomes)

Step 1-

Screen Shot:(1)-Installation of an App

Step 2-

Screen Shot:(2)-Running an App

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From the Screen Shot:(1), it has been observed that, to run the application, we have to install it in the mobile via USB cable.

The screen shot shows the process that takes place after connecting the pc to the mobile phone via USB. After that a particular pop up comes up which shows the choices like 1. INSTALL and 2. DENY. Then, we have to select the install option for installation of the APP.

Refer the above picture for the overall process.

The Screen Shot:(2) shows that, this is the second step after the installation of the APP. A page comes on the screen after installing the APP. (refer screen shot:(2)). A button with the ON/OFF option comes on the screen and below it the details of the calls will be displayed. As soon as you turned on the button, the mobile phone goes on the silent mode.

Step 3-

Screen Shot:(3)-Granting the permission

The Screen Shot:(3) shows that, in the third step, an interrupt will occur after turning on the ON/OFF button.

This interrupt will seek permission for allowing the APP to manage the phone calls and also grant permission to access them. Don't select the DENY option, if you select it, the app won't be able to access the phone calls. That's why select the ALLOW option for running the APP.

Step 4-

Screen Shot:(4)-Output

The Screen Shot:(4) shows that, after granting the permission in the third step, here comes the fourth step. In this all the calls of your phone will be displayed on the screen as you have granted the permission before by allowing to manage the contacts.

From the screen shot:(4), some missed calls and incoming calls been displayed on the screen and its call duration, date, the caller's phone number as well as time.

Step 5-

Screen Shot:(5)-App View Page

Discussion

Till now the researchers found that the BOT's which are currently in use possess a variety of capabilities but lack some of very common one and simple one such as automatically sensing a phone call, counting them, and rejecting them. These are some basic tasks which require very complicated coding and compatibility with the device which are running them. So here it is provided about how to implement BOT on a phone and use it effectively and efficiently.

Conclusion

In this technical research paper, we have designed a bot, which gives a detailed description about every aspect associated with the bot. Here an approach is proposed by the virtue of which a software BOT can be applied which will simplify the process of call acceptance or call rejection in mobile phone communication which will give rise to the simplified and efficient communication in the future.

Future Scope

The BOT which is described here has a very vast future scope and can be implemented to an extent such as automatic message reading, automatic replying to a message, reading mail and composing mails automatically and sending them, etc.

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