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Review Article

Review Paper on AI Desktop Voice

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I N F O

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A B S T R A C T

The AI Assistant enables users to access online websites and calendar notification using natural language speaks through a PDA interface. The user must present the system and enabling the user to conduct a dialogue in which it is affable to operate between these domains. The JARVIS(SPA) is applied to an agent platform and includes a special PDA controller with plans for coordinating the accuse assistants and for encoding the system's speak model. The agent-based dialogue model is at an upper level of abstraction, enabling the domain free plans in the dialogue model to be reused in alter JARVIS(SPA) systems.

Keywords: CPU - Central Processing Unit, OS - Operating System, RAM - Random Access Memory, UI – User Interface, API – Application Program Interface, ATA –Advanced Technology Advancement, SCSI – Small Computer System Interface, SATA – Serial Advanced Technology Advancement, NCSA – National Centre forSupercomputing Applications, TF – Term Frequency, IDF –Inverse Document Frequency, AI – Artificial Intelligence – Machine Learning

Introduction

Our research is mainly focusedonnaturallanguage interaction with our smart personalassistant systems for use on mobile devices such as PDA sand mobile phones .Our acquaints Smart Personal Assistant (JARVIS(SPA))is a personal information address assistant that allow users with integrated access to different websites, other information. The JARVIS(SPA) must present aunified interface to users so that they can switch without bounds between the various domains. In addition, though speech recognition systems have greatly improved inrecent years, achievement is far from perfect, so dialogue model must be built to include mechanisms for recovery froms peech recognition mistakes.

Our proposed paper is based on the project avoice command-based voice assistant.It over comes the disadvantages of the traditional system by not only speaking but also showing the results.Speaking of the future scope, the seam less conversation performance of today's popular voice assistant(s) has made the mamus tha vein today's fast-moving world to complete our bigors mall daily needs. Also, its compatibility along the household and office furniture and appliances increases their overall production level and quality; it can be integrated using numerous procedures to many devices.Notonly that, we can personalize them: however,we want, whenever we want. This means that you actually experience a whole new set of productivity each time you feel dull. Users have shown faith and got in return an unexplainable amount of confidentiality while going for these voice assistants, thisbringsnew dynamics in the game experimenting and aiming for more and more. Its shop percent is expectedtogo to almost 18% by next year.

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Literature Review

AIVC: AIVC (Alice) is a pretty standard virtual assistant with an above modal track record. It includes the ability to ask for simple things such as starting many apps, the weather,

time, date, reminders, and simple problems of mathematics. You can also ask about fun facts about states, stocks, and many more. Of course, it also comprises of the basics like calling, sending SMS, navigation, alarms. It is neither complex and nor as smooth as Google. But now it is not a bad option to just need something simple.

CORTANA: It is true that Cortana still needs some work but it has very much strength to leave off of a list like this. Microsoft's answer to Siri has a ton of things that it can do and it's structured into Windows 10 for near-unlined cross platform support. Among it has many features include the ability to call people, SMS and email, track packages, tell jokes, take notes, add stuff to your calendar, and more. Again, it is a little harsh approximately the edges right now, but Cortana is still better than most and it'll only get better over the time.

GOOGLE NOW: Google Now is bonny much the accepted champion of smart assistant apps on Android. It comes with a metrical ton of analogue which includes the basics, more advanced airless like anticipating you activated it anywhere, Google Now on Tap, and a lot more. It's not enough that this app is solid as a brittle wall but it's also updated on an almost constant basis by Google which

seems to only add to its ballast and range of analogue. If your device has Google Play accommodate, you probably predetermined have this installed that's means you just have to turn on it. You can also get Google Now Launcher which puts Google Now at the forefront of your device interactions.

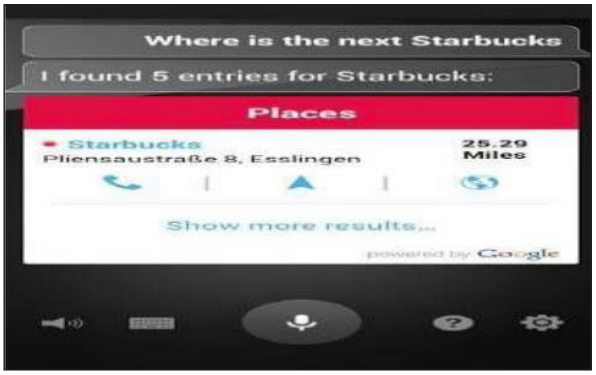

Figure 1

Figure 2

Figure 3

Software

IBM's DeepQA software and the Apache UIMA (Unstructured tidings Management Architecture) frameworks used by Watson. The system was written in different programming languages, such as Java, Prolog, and C++ and it is runs on the SUSE Linux Enterprise server 11 operating system using Apache had OOP architecture is allow distributed computing.

DATA: The sources of proclamation for Watson enclose encyclopaedias, dictionaries, thesauri, newswire apprentice, and literary works. Watson also used databases, taxonomies, and ontologisms. Specifically, DBPedia, WordNet, and Yago were used. Watson was provided with many documents by the IBM team including dictionaries, encyclopaedias, and much other reference material that it could use to build its knowledge.

Methodology

- The fundamental Objective of the project is to design and develop an AI based voice assistant that answers the questions asked through the microphone of computer. It should show as well as speak the answers of that question. In addition to the prototypes of the projects provided online we add some original touch to it
- First the user has to download the python program (source code)
- Secondly, the user has to install a coding interface that allows python programs to run successfully
- The interface should have a terminal allowing for further process
- Now copy paste the source code within a new python project
- Now open the terminal page to download some directories.
- Type pip install pyttsx3, pip install speechRecognition, pip install Wikipedia, pip install pipwin, pipwin install pyaudio
- You have to be connected with an active internet connection, these commands will download and install directories on its own
- After this is done, compile the program (code)
- The assistant welcomes you and then displays the text listening, you can then ask whatever you want and it will display and speak the answers accordingly

Motivation

When we had all individually registered for this course none of us were quite sure what we planned to design going into this. But we all knew we wanted something interesting, and importantly something fun. We had seen previous projects, the home security systems the rovers lots of interesting ideas but none of them really clicked. When the basis of an AI Assistant was suggested, we began to build off that, this project created a platform to learn about artificial intelligence such as an AI Assistant. This expands the scope of the computer engineering education to include the control and the understanding of the mechanical components. The AI Assistant has many applications that we are interested to develop like mapping and reconnaissance especially in a defence and dangerous area. It also opens up the possibilities to broaden the understanding and applications of control systems, stabilization, artificial intelligence and computer image processing as it applies to the AI Assistant.

The aim of this project was to build an autonomous Assistant that can be used to do day to day routine works. This project was a great learning opportunity for us to apply our engineering knowledge. The thesis addresses the difficulties our group faced throughout the project. It also opens up the possibilities to broaden the understanding and applications of artificial intelligence as it applies to the AI Assistant.

Things to Foresee

Technical Practicality: It incorporates discovering advances for the venture, both equipment and programming. For remote helper, client should have mouthpiece to pass on their message and a speaker to listen when framework talks.

Operational Possibility: It is the straightforwardness and effortlessness of activity of proposed framework. Framework doesn't need any uncommon range of abilities for clients to work it.

Economical Possibility: Here, we track down the all-out cost and advantage of the proposed framework over current framework. For this undertaking, the primary expense is documentation cost. Client additionally would need to pay for receiver and speakers.

Organizational Possibility: This shows the administration and hierarchical design of the venture. This venture isn't worked by a group.

Cultural Possibility: It manages similarity of the undertaking with social climate. Remote helper is inherent agreement with the overall culture. The venture is named JIA in order to address Indian culture without sabotaging nearby convictions.

Technology Used

Python: Python is an interpreted high-level general-purpose programming language. Its design philosophy emphasizes code readability with its use of significant indentation. Its language constructs as well as its object-oriented approach aim to help programmers write clear, logical code for small and large-scale projects.

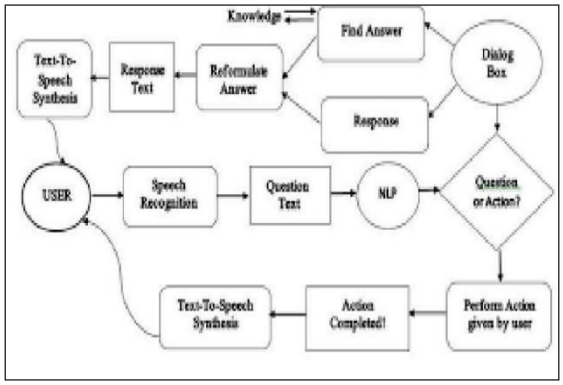

Figure 4.Use Case Diagram

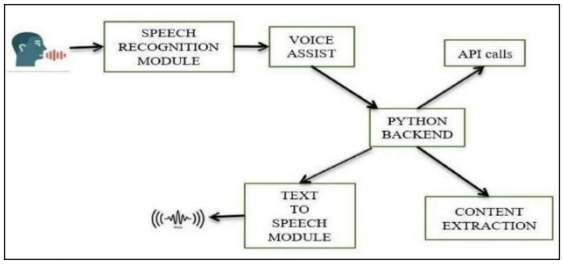

Figure 5.DFD Diagram

The Smart Personal Assistant provide natural language interaction tailored to the user's device, and coordination of a range of specialist job assistants. It is concluded that the application will work well and satisfy the current users and future users as well. This program and the interface checked well and errors are properly removed. This site is simultaneously accessed from more than one system (by sharing of the source code and downloading the several pip's). In this voice assistant we can ask different questions about different topics, and it will answer them properly by not only showing them but also delivering it through voice. And this approach also makes it possible to incorporate learning into the system so that the user's choice for interactive can be acquired automatically. Artificial Intelligence is taking the world by storm these days. Hardly there is any field today that does not have Machine learning or AI to make their problems easier- it's the trend as well as the one place solution. There has been an estimated jump of 11% profit and numerous stocks since the worldrenowned companies have been using AI for their growth. So, this assistant becomes your best friend within you in these times. Here are some key features that make AI powered voice assistant so demand full:

- Easy and Intuitive user interface
- Voice commands enabled
- Text and voice answers available
- Different voices enabled
- Multipurpose assistant

These future scopes have increased lots of opportunities for the production and growth of industries and IT Sector. It has provided goods and will continue to do so in upcoming times. Starting from the very basic, we aim to contribute as well as step further in our lives by professionalizing ourselves in AI and machine learning.

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