Survey on Advance Searching by Virtual Assistant Using Python

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ABSTRACT

An intelligent virtual assistant (IVA) or Intelligent personal assistant (IPA) may be a program or software agent which will perform a particular task or services for an individual. It also provide a services for a private supported command or questions. One of the goal of Artificial Intelligence(AI) is the realization of Natural dialogue between human and machine. It is design to stimulate human would behave like a conversational partner. In recent years, the dialogue system also know an interactive conversation system are fastest growing in AI. The main application of virtual assistance is growing fast in our personal and professional life. Many company have used the dialogue system technology to establish various king of Virtual Personal Assistant (VPA) based on their application and their particular areas, such as Microsoft's Cortona, Apple's Siri, Alexa from amazon, Google Assistant and Facebook's M. The new system of VPAs will be used to increase the interaction or conversation between the human and machine by using different technologies, such as image/video recognition,speech recognition, conversational knowledge base, synthesis voice, and the general knowledge base.Some virtual assistant are ready for interpreting human speech and via voice synthesis user. In these situation user may use voice command to request there VA to answer the Query , manage home appliances, control media playing, and handle other essential activity like email, creating the to do list and organize the meeting on calendar.

Key Words: VPA, NLP, Text To Speech, Machine Learning, Artificial Intelligence, Deep Learning.

I.INTRODUCTION

In the Subject of Artificial Intelligence, there has been a lots of progress recently. The digitalization of the world made sure that humans no need to contact anyone else to seek help, they could not particular task. The place of the human is replace by the digital reliable devices which can take care of their everyday needs. The computers, mobiles, laptop,etc., to become a part of us and our simple calculations to complex program to reduce monotonous work and save waste of manpower. The name of Virtual Assistance we are created is Ronick's. This Virtual Assistance is an intelligent application that can perform task and provide the services for a person. My virtual assistance Ronick's can make life easier relatively new integration in VPA. Large technology companies have their own intelligent virtual assistance for different purposes and platforms. At first the virtual purpose of such as assistant was to answer the user's question, but a point to enhance it further with more capabilities and responsibilities. Ronick's Virtual Assistance is an artificial intelligence powered VIRTUAL assistance develop that is primarily used only computer and laptop devices. The Ronick's VIRTUAL assistance can engage in two conversations.

Introduction to Python

Python is an interpreter language, object-oriented programming andinteractive language. Interpreted language do not need to be compiled at run time. A program called as interpreter. It runs Python code of almost any kind of computer. The main drawback of python is slowerthan a compiled language like C, because it is not running machine code directly.

Python is one of the most popular programming languages, which is used by developers today. Guido Van Rossumis created in 1991 and ever since its inception has been one of the most widely used languages along with C++, Java,etc.

Python is good programming language to beginners, because python is just like a English language it is called as high level language. Which means that programmer can only focus on what to do instead of how to do it. The main advantages of python is writing program in Python takes less time than in some any other languages. Python drew inspiration from other programming languages like C, C++, Java, Perl, and Lisp.

II. LITERATURE REVIEW

Voice Activated Desktop Assistant Using Python

Singh, sherawat and Sonia, June 2020. This study demonstrated that, the task of voice assistant to minimize keyboard, mouse, touch pens, etc. This will reduce both of the hardware cost and space taken by it. For Greater Noida, the period of 2012 – 2020, using Virtual Assistant and Python and import modules. Free API is provided and supported by Google. This is very light API that help in reducing size of application. The finding shows that, this assistant currently work online and perform basic tasks like weather updates, stream music, search Wikipedia, open desktop application. This study also founds the upcoming updates of this assistant will have machine learning.
Implementation of Virtual Assistant forthe Academic Management ofa University withthe Use ofArtificial Intelligence.
Villegas, Garcia, Mullo, Sanchez and Roman, 13 April 2021. This studysays that, the task such as a providing information on an academic courses are addressed by them, reducing administrative burden and improving the user experience. For the United State of America, the period of 2019 – 2021, using Chabot. This study use to reduce administrative burden and improve the quality of product. The finding shows that, the architecture used for the development of the chat bot allows it to be scalable focused on learning through bot founds the evaluation have made it possible to demonstrate the effectiveness of the Chabot in the administrative management of the race in which is implemented.

Virtual Assistant Using Artificial Intelligence.

Reddy, Vyshnavi, Kumar and Soumya, march 2020. This study demonstrated that, An Intelligent Virtual Assistant (IVA) or Intelligent Personal Assistant (IPA) may software agent will perform the task or services on an individual. User may ask their assistants questions, control home automation devices and media playbacks via voice and manage other basic task like emails, to do lists and calendar, with verbal commands. For the Mumbai, the time period of 2018 – 2020, using the method of Natural language processing and Text Analysing with the using of MFCC and Automatic speech recognition. The finding shows that,the VPA minimize the interruption of the user, improve the utilization of time and provides the single point of communication for all his massage, contact, schedule and sources of information.

Research Paper on Desktop Voice Assistant.

Dhanraj, Kriplani and Mahajan, February 2022. This study examine, this voice assistant, their main problem and limitations. Also it describe that the method of creating a voice assistant without cloud service, which will show the expansion of such devices in the future. For the India in May 2022. The method was using such as speech recognition, API calls, Python backend. The finding shows that Virtual Assistant is the flexibility to contract for just the services they need, as like Alexa, Cortana, Siri, Google Assistant we also make virtual Assistant using Python for all window version.

Artificial Intelligence – Based Virtual Assistant.

Yadav, Namdam and Sonu, April 2021. This study says that as software that communicates with people using Artificial Intelligence. This software people used to perform task such as responding quickly to user, informative them, helping to purchase product, and providing better, speech and respond with integrated voice for the all over India, the time period of 2018 – 2021. Artificial Intelligent vase Virtual Assistant has be implementation using Python library, Selenium and the Google Speech Recognition API. Python 3.7 or above, IDE or VS code or Python, have been used for the development of the Assistant. The finding shows that, voice Care Company are trying to improve communication with of the feature at the next level and most young people have started using voice helper in daily life and may sources, the result shows a very positive response.

III. EXISTING SYSTEM

Virtual assistants are typically cloud based programs that require internet connected devices and application to work. Three such applications are –

1. **Siri on apple devices:**Siri is a digital personal assistant, integrated withinApple device operating systems, that enables Apple device user to get answers the given questions, check the weather, confirm flights, perform searches, compete actions, and send a message and much more.
2. **Cortana on Microsoft devices:** Cortana is Microsoft's personal productivity assistant that helps you save time and focus attention on what matters most. To get started, select Cortana icon on the taskbar. If you're not sure what to say anything, try asking. "What can you do?"
3. **Google assistant on android devices:** Google assistant is Google's voice assistant AI for Android devices. It provides a virtual personal assistant experience through natural language speech interface to perform a specific variety of tasks.

IV. PROPOSED SYSTEM

It is suggested that a brand new technologies may soon make the idea of virtual personal assistant realities. Experiments conducted on this system, it can be combined with user testing, have provided evidence that a basic program with machine learning algorithm in the form of

digital personal assistant. The concept of virtual assistant which is a digital service looking after the range of our needs is fast becoming a reality.

Ronicks work on social media and other application: Ronicks has the potential to transform how brands market across social networks such as Facebook, Instagram, and Twitter. AI enables that's, social media marketers to get closer to their audience and understand their preferences. This will helps them target their ads in a better ways as well as create content in a better ways.

We take a look at some of the ways that social media platforms that are using AI for their benefits and to serve the customers for providing a best solutions.

Ronicks working with Email: Ronicks virtual assistant will help you to send your email to any recipient only by giving their Email ID to assistant by saying it.

You can send the Email by saying it but it needs to write before the sending the Email.

V. ADVANTAGES

1. Control your computer devices
2. Access information from your calendars and other personal information.
3. Find information online, Wikipedia, directions, weathers and news.
4. Control your music.
5. Run time and reminder.

VI. APPLICATIONS

1. **Machine Learning**: Machine learning(ML) is a type of Artificial Intelligence that allow software applications to become more accurate at prediction outcomes without being explicitly programmed to do so machine learning algorithm use historical data as input to predict new output value.
2. **Natural Language Processing**: Natural language processing(NLP) is a branch of Artificial Intelligence(AI) that enables machines to understand the human language It's goals is to build system that can make sense of text and automatically perform task like translation and spelling check.
3. **Expert System**: In AI an expert system is a computer system that emulates the decision making ability of a human expert. Expert systems are design to solve complex problems by reasoning through bodies of knowledge, represented mainly as if then rules rather than through conventional procedural code.
4. **Computer Vision**:Computer vision is field of AI than trains Computer to Capture and interpret information from image and video data. By applying machine learning (ML) model to image, computer can classify object and respond like Unlocking your smart phone when it recognize your face.
5. **Speech Recognition**: AI and machine learning methods like deep learning and natural Networks are common in advance speech recognition software. There system use Grammar, structure, syntax, and Composition of audio and voice signal to process speech.

VII. LIMITATIONS

- **Language Barriers**: Serving international client can be challenging. VAs need to be highly fluent in English, or it is better when it can easily communicate with people of different nationalities. A good way to enhance your English Speaking and writing skills is to join a language class or refer online classes for free of cost.
  That different cultures may speak the same language differently for the example of American English. Understanding language barriers is key to effective communications.
- **Conflicting Time Zone**: Working with clients in different time zone is extremely challenging conflicting time zone can cause communication delays and project delays, which can be very frustrating for you and your client.

VIII. FUTURE SCOPE

The Virtual Assistant will continue to play an important role in the Development strategy of business because it's provides double edged Solution to improve profitability by increasing revenue through efficiency and effectively lowering cost Gather predicts that, by 2025, 50% of knowledge workers will use Virtual assistance on a daily basis's, up from 2% in 2019, By 2023 Gather predict that 25% of employee interaction will be voice base Communication.

Virtual assistant may also use for medical diagnosis. We have to simply tell the assistant, symptoms of a particular problem and Ronick's assistant provide and suggest some medicines name regarding to the symptoms

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