Offline Echo Speech Recognition

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Abstract— *The Voice Command Demo demonstrates a simple speech recognition by showing you the commands it recognizes. A speech recognition engine should be installed to run the program. You can download the Microsoft Speech Recognition Engine from here. The Voice Command interface is the high-level interface for speech recognition. It is designed to provide command and control speech recognition for applications. With this interface, a user gives the computer simple commands, such as "NUMERICS ". Command and Control does not allow speech dictation. The Voice Command design mimics a Windows menu in behavior, providing a "menu" of commands that users can speak. Basically, to use voice commands, an application designs a Voice menu that corresponds to a window or state within the application. Most programs will have one Voice menu for the main window0 and one for every dialog box. Contained within every Voice menu is a list of voice commands that users can say. When they say one, the application is notified which command was spoken. "Numerics " and are typical voice commands. Each voice command has information in addition to the spoken command, such as a description string and a command ID.*

A. Keywords— Automatic speech recognition, Speech gear interaction, Voice Activated Commands;

I. INTRODUCTION

The PaeLife project is a English industry-academia collaboration in the framework of the Ambient Assisted Living Joint Programmed (AAL JP), with a goal of developing a multimodal, multilingual virtual personal life assistant to help senior citizens remain active and socially integrated. Speech is one of the key interaction modalities of AALFred, the Windows application developed in the project; the application can be controlled using speech input in four English language. This paper briefly presents the personal life assistant and then focuses on the speech-related achievements of the project. These include the collection, transcription and annotation of large corpora of elderly speech, the development of automatic speech recognizers optimized for elderly speakers, a speech modality component that can easily be reused in other applications, and an automatic grammar translation service that allows for fast expansion of the automatic speech recognition functionality to new languages .Voice commands allow the user to control an application by speaking commands through an audio input device rather than by using the mouse or keyboard, giving the user hands-free control of the application. Voice commands involve the use of an audio input device, such as a microphone or a telephone, a speech recognition engine, and a Voice menu. When the user speaks a command into the audio input device, the speech recognition engine attempts to transcribe the spoken input into text. If the engine succeeds, it compares the command text to that of the commands in the active Voice menus.

II. LITERATURE SURVEY

One of the problems faced in speech recognition is that the spoken word can be vastly altered by accents, dialects and mannerisms. In South Africa, there is a large variety of languages and dialects. Even the most basic speech recognition systems perform poorly when trying to recognise words spoken by English second language speakers. The motivation behind this survey is to investigate speech recognition and more specifically what research has been around dealing with the problem of large variations in dialects. Users now demand an enlightening first experience and there's no second first impression for speech recognition things are not quite yet user friendly. We have two options in sphinx speech recognition a) batch and b) continuous i.e. real time. Our focus here is to provide accurate recognition for the first words in real time. We're trying to find a better method of automatically initialize the cepstral mean normalization for more accurate recognition of the first utterance in continuous (real time) mode. Problem Statement Pocket sphinx continuous wastes the first few seconds (first utterance) to tune the canine and only then good and precise results starts to show up. In serious speech recognition applications like speech evaluation this is not acceptable and the first words are not something to sacrifice. Usually normal desktop used by all users are easy for those who can see but for a blind person it is not easy to use a desktop without knowing where they are located and if at all they knew also they can't view the data. Even for normal people also sometimes it is difficult to search the files in vast drives. In windows8 operating system now we are having a voice search facility and some of the mobiles with android versions also having this voice search facility but it is difficult for a blind person even though it gives audibility.

III. PROPOSED SYSTEM

Offline Echo Speech Recognition provides a way for blind people to use desktop easily. As they can't use normal desktop normally we are providing an interface with desktop. It is a concept of providing vision to the blind through speech or voice. Whenever they are accessing a desktop by mouse as they can't see but they can hear name of the icon. Text to speech and voice to text is another facility providing for user.

First benefits of this strategy is that degradation of the possibility of copying security passwords because there is no need of composing security passwords and the whole can be done without any worry. Numeric data have to echo to open particular icon to access them without any mouse

The significant advantage of this program is in contact centers where a huge number of clients are on line to enquire and a representative needs to be online to be present at the call. With the help of this technological innovation calling can be joined successfully and with more efficiency.

Person who is unable to write or see with the help of this application can perform their task such as inquiring or transaction process etc.

Country like India has so many dialects variation with the help of this technology the dependency of human staff trained in different languages has been reduced significantly.

This application has proved a revolution to improve customer happiness in addition to improving companies' earnings by simply achieving new customers in addition to holding onto existing customers.

This is very beneficial for who are able to read and write up to some extent and know how to make use of cell but can't write or speak in English to type English letters as passwords.

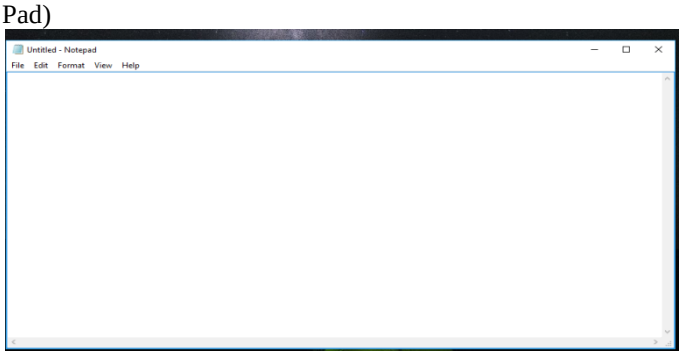
IV. Related Work

Voice Attack - allow hands-free keyboard and mouse input in Windows 10, Windows 8, Windows 7, Windows Vista and Windows XP. Its popularity lies mainly in its ease of use and extended feature set, which includes the ability to create multi-threaded macros. Livrot Mic Command - modern desktop speech recognition support, programmable multi threaded macros with independent data system. Windows 7,8 and 10 VAC - Voice Activated Commands is a feature rich speech recognition solution It works with Windows 8, Windows 7, Windows Vista and Windows XP .medical vocabularies(language models) for medical users. Can be licensed for individuals, groups speech applications using Windows Speech. Vocal – a macro language Speech gear interact-combines speech recognition with language translation.

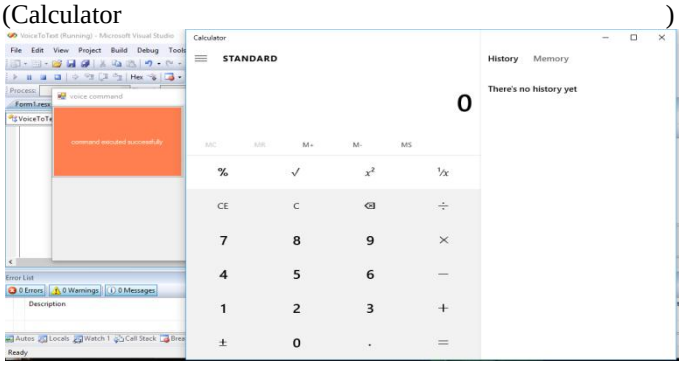
V. Results

The following snapshots will contain the brief description of a project i.e., from where we have to start how to start our project it will contains

Receiving the voice command and giving the output (Note Pad)



Receiving the voice command and giving the output (Calculator)



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VI. CONCLUSION AND FUTURE WORK

The world is a place where blindness is not a handicap, but just a more inconvenience. We are providing convenience to access desktop as normal as others by giving input through voice , easy redirecting and some other conveniences like text to speech , audibility of complete data in files , audio files and provision of mailing is there .microphone or using a Bluetooth device, which would not only improve the microphone quality but allow the commands to be given at a distance from the robot. Another way to improve this would be to use Google's speech recognition API. However, Google's API only allows a limited amount of pull requests per day, which would make testing difficult. Another drawback we faced was the fact that we used the move base client node to publish goals at a predetermined distance from where the robot's starting point

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