Speech Recognition Report

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ABSTRACT

Language is considered to be most important means of communication and speech is the primary medium for human beings. Speech Recognition acts as an interface between the user and the system. Speech Recognition (SR) is the ability to translate a dictation or spoken word to text. Speech Recognition known as “automatic speech recognition” (ASR), or speech to text (STT). Speech Recognition is the process of converting an acoustic signal, captured by a microphone or any peripherals, to a set a word. To achieve speech understanding we can use linguistic processing. In the society every one either humans or animals wish to interact with each other and tries to convey own message to others.

INTRODUCTION

Have you ever talked with your computer ? Where it actually recognized what you have said and according to the command given it performs a certain tasks. If this same thing has been happened then you have used the technology known as speech recognition.

Speech Recognition allows you to provide input to a system with your voice. Just like clicking with your mouse, typing on your keyboard, or pressing a key on the phone keypad provides input to an application, speech recognition allows you to provide input by talking.

SPEECH RECOGNITION

Speech Recognition (SR) is the ability to translate a dictation or spoken word to text.

Speech Recognition known as “automatic speech recognition” (ASR) or speech to text (STT)

- Speech Recognition is the process of converting an acoustic signal, captured by a microphone to set a words.
- To achieve speech understanding we can use linguistic processing.

Speech recognition is the process by which the computer identifies spoken words. Basically, it means talking to a computer & having it correctly understand what you are saying.

The days when you had to keep staring at the computer screen and frantically hit the key or click the mouse for the computer to respond to your commands may soon be a things of past. Today we can stretch out and relax and tell our computer to do our bidding. This has been made possible by the ASR (Automatic Speech Recognition) technology.

Speech Recognition is an alternative to traditional methods of interacting with a computer, such as textual input through a keyboard. An effective system can replace, or reduce the reliability on, standard keyboard and mouse input. This can especially assist the following:

- People who have little keyboard skills or experience, who are slow typists, or do not have the time or resources to develop keyboard skills.
- Dyslexic people or others who have problems with character or word use and manipulation in a textual form.
- People with physical disabilities that affect either their data entry, or ability to read what they have entered.

ADVANTAGES:

- Increases Productivity
- Can help in menial computer tasks, such as browsing and scrolling
- Can help people with Disabilities
- Cost effective
- Diminishes spelling mistakes

DISADVANTAGES:

- Inaccuracy and Slowness
- Vocal strain
- Adaptability
- Spontaneous speech

- Out-of-Vocabulary words

APPLICATIONS:

- Data entry
- Document Editing
- Speaker Identification
- Automation at call centers
- Medical Disabilities
- Fighter Aircrafts

FUTURE SCOPE:

- Ability to distinguish nuances of speech and meanings of word.
- Achieving efficient speaker independent word recognition.
- Wearable speech recognition system.
- Talk with all the devices.

CONCLUSION:

- Speech Recognition will revolutionize the way people interacted with Smart devices & will, ultimately, differentiate the upcoming technologies.
- Almost all the smart devices coming in the market are capable of speech recognition.
- This technology will spawn revolutionary changes in the modern world and become a pivot technology.

REFERENCES:

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