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Voxification – Voice based manipulation of slides in powerpoint

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ABSTRACT

Speech recognition technology is one of the fast growing engineering technologies. It has a number of applications in different areas and provides potential benefits. This project uses speech recognition technology to navigate through a PowerPoint presentation.

Keywords: *Speech recognition, Presentations, Slides, Commands.*

1. INTRODUCTION

This paper considers an overview of speech recognition technology, Software development, and its application in PowerPoint. The first section deals with the description of speech recognition process. Later part of paper covers the speech recognition process used in PowerPoint. Finally, the paper concludes at the different potentials uses of the application and further improvements and considerations.

2. AN OVERVIEW OF SPEECH RECOGNITION

Speech recognition is a technology that able a computer to capture the words spoken by a human with the help of a microphone. These words are later on recognized by the speech recognizer, and in the end, the system outputs the recognized works. The process of speech recognition consists of different steps that will be discussed in the following sections one by one.

An ideal situation in the process of speech recognition is that a speech recognition engine recognizes all words uttered by a human but, practically the performance of a speech recognition engine depends on a number of factors.

Vocabularies, multiple users, and noisy environment are the major factors that are counted in as the depending factors for a speech recognition engine.

This project attempts to design and implement a voice recognition system that would identify different predefined commands given by the user and perform the corresponding operations on the PowerPoint presentation slides.

3. IMPORTANCE OF PRESENTATIONS

A presentation is one which represents the analysis of a topic, and then responds to questions and leads a discussion of the presentation. PowerPoint is the most popular presentation program which allows users to create, edit and show beautiful presentations with the help of slides. The user can combine the text, graphics, and multimedia to support a presentation.

For many individuals, the first important presentation they deliver might be to the selection committee. It might be labeled as a "job interview" but it's really a presentation. Success rides on their presentation outshining the competition. The results are black and white but the skills are a rainbow of colors.

Presentations make it easier to engage your audience. Striking images can hold an audience's attention; while clear bullet points or summary text helps the audience follows the logic of a presentation. The theatrical nature of a presentation can create greater impact than an individual trying to make the same point by just talking. This level of engagement ensures that you get your message across to the audience.

4. WHY VOICE-BASED SLIDES

However effective a presentation might seem, there are always drawbacks or problems while delivering one. Problems can occur at any time during a presentation that involves an audience. Some of them are visual-aid problems, distraction through the noise, and unpleased use of body-languages. But the most underrated flaw during a presentation is the time wasted by the presenter to change slides hence distracting the audience.

5. SYSTEM OVERVIEW

The voice-based slide navigation is an integrated system wherein the commands recognized are stimulated into navigation operations for slides in PowerPoint application.

The sequence diagram of the proposed system is shown in Fig.1.

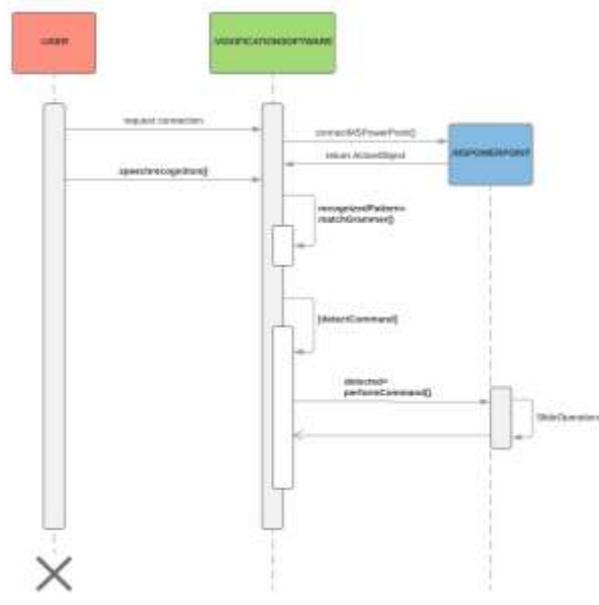


Fig.1. Sequence diagram of the proposed system

6. IMPLEMENTATION

Microsoft Visual Studio 2012 Ultimate is used to implement the proposed idea. C# programming language is used to code the program. Assemblies provided by the Visual Studio are incorporated to make use of speech based functionality and to connect the program to the PowerPoint object. A Bluetooth headset containing a microphone is used to receive voice input to the software. The software has to be installed in the system from which PowerPoint file is being presented.

7. WORKING OF THE SYSTEM

The speech input from the microphone is given to the speech recognition module where the recognized speech is compared with the grammar set stored. Upon successful recognition of voice command, the slides are managed as per the command.

The basic working of this system is depicted in the flowchart shown in Fig.2.

The operations performed by the proposed system are to navigate to the first slide, last slide, next slide, previous slide and to the specified slide number.

The commands accepted by the system are "voxi check connection" to check if the software is connected to the active PowerPoint object, "voxi first slide" to go to the first slide of the presentation, "voxi last slide" to go to the last slide of the presentation, "voxi next slide" to go to the next slide from the current slide, "voxi previous slide" to go to the slide previous to the current slide and "voxi slide n" to go to the nth slide of the presentation.

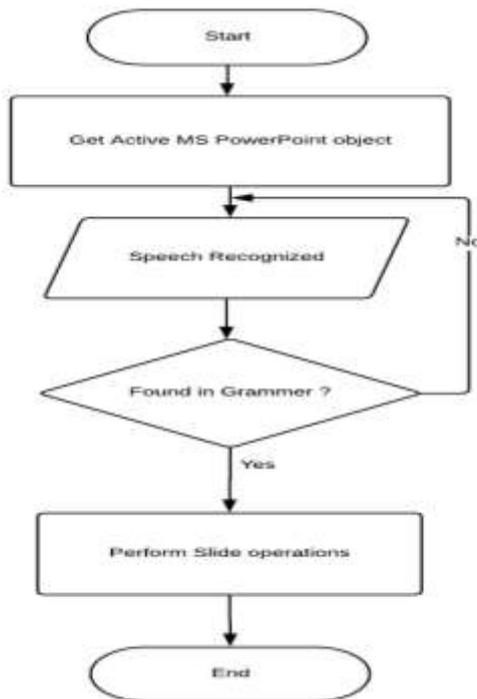


Fig.2. Basic flowchart of the working of voice-based PowerPoint operation

8. RESULT OF THE PROPOSED SYSTEM

The main objective of this project is to design a voice-based navigation of slides in PowerPoint software to help presenters enhance their presentation and carryout an uninterrupted session. The recognized voice command makes the software to switch slides with ease.

9. CONCLUSION AND FUTURE ENHANCEMENTS

The voice-based manipulation of slides in PowerPoint is developed and implemented to make presentation sessions more effective and comfortable one. The use voice command eliminates the use of the remote controller and other electronic devices and makes it easy to interact with the system.

Further functionalities can be designed and implemented to perform other operations like Find and Replace function, editing operations, etc.

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11. REFERENCES

[1] Mukesh Kumar, Shimi S.L, “Voice Recognition Based Home Automation System for Paralyzed People”, Volume 4, Issue 10, October 2015.
[2] Suma Swamy1 and K.V Ramakrishnan, “AN EFFICIENT SPEECH RECOGNITION SYSTEM”, Vol. 3, No. 4, August 2013.
[3] Ksenia Shalnova, “Automatic Speech Recognition”, 07 DEC 2007.