Voice Response Based Email Service For Visually Challenged

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ABSTRACT

World communication has become so easy due to incorporation of communication technologies with

Internet and the most reliable way to communicate is Email Services. The visually challenged people find it very difficult to access the technology because of the fact that using them requires visual perception. Even though much new advancement has been implemented to help them use the computers capably no user who is visually challenged can use this technology as efficiently as a normal naïve user can do that. This application aims at developing an email system that will help even a visually impaired person to use the services for communication without prior training. This system will also reduce cognitive load taken by blind to remember and type characters using keyboard. The system is completely based on voice response which will make it user friendly and efficient to use and eliminate the use of keyboard to write the mail. this system also can be useful to any normal person for example one who is not able to read the mail.

Keyword: - *E-mail Service, Text to Speech, Speech to text, Voice Commands, Pre-Processing*

1. INTRODUCTION

Now days the main arenas that Internet has revolutionized is communication. The communication over Internet, the first thing that comes in our mind is E-mail Service. E-mails are considered to be the most reliable way of communication over Internet, for sending or receiving some important information, but there is a special criterion for humans to access the Internet and the condition is you must be able to see. You must be thinking that what sort of criteria is this, everyone with eyes can see there are some visually challenged people who cannot see things and thus cannot see the user interface on any computer screen or keyboard.

A survey shows that there are more than 250 million blind people around the globe. That is, around 250 million people are unaware of how to use Internet or E-mail services.

Therefore, the voice mail application for visually impaired persons using voice commands, thus enabling everyone to control their mail accounts using their voice only and to be able to send the mail, and perform all the other useful tasks such as attachments.

The system is developed the user operate E-mail application with voice commands to perform certain action and the user will respond to the same.

2. LITERATURE SURVEY

1. AN INTERACTIVE EMAIL FOR VISUALL IMPAIRED:

   An interactive email system for visually impaired is a concept that assists the visually challenged people to access their email like any other common people. This paper explains the design and implementation of such an interactive system for visually challenged people. Web accessibility stands as the inclusive practice of creating web-based applications that can be used by people of all kind. When web applications are perfectly prototyped, implemented, and edited, all sort of users can have mutual license to information functionality also that can be facilitated without reducing the usability of the application for normal users.

2. Voice based email system for blinds:

   In today's world communication has become so relaxed due to incorporation of communication technologies with internet. However, the visually challenged people find it very difficult to utilize this technology because of the fact that using them requires visual perception. Even though many new advancements have been implemented to help them use the computers efficiently no naïve user who is visually challenged can use this technology as efficiently as a normal naïve user can do that is unlike normal users, they require some practice for using the available technologies. This paper
   aims at developing an email system that will help even a naïve visually impaired person to use the services for communication without previous training. The system will not let the user make use of keyboard instead will work only on mouse operation and speech conversion to text.

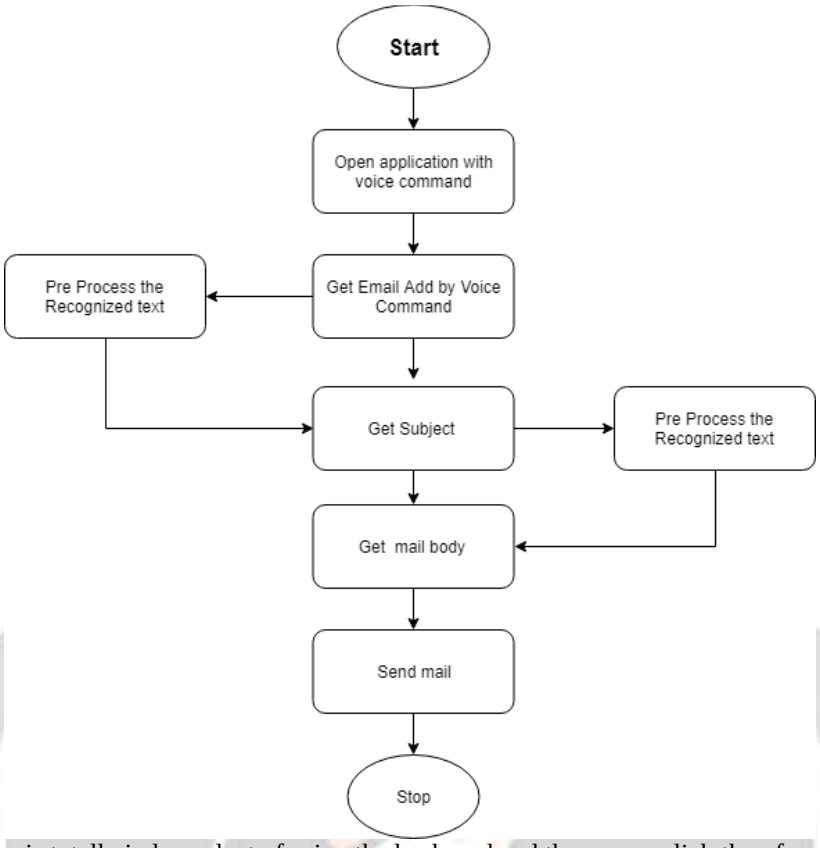
3. Voice Based E-Mail System for Blind People:

   The visually challenged people find it very difficult to access the technology because of the fact that using them requires visual perception. Even though much new advancement has been implemented to help them use the computers efficiently no naïve user who is visually challenged can use this technology as efficiently as a normal naïve user can do that. Unlike normal users they require some practice for using the available technologies. This application aims at developing an email system that will help even a visually impaired person to use the services for communication without prior training. This system will also reduce cognitive load taken by blind to remember and type characters using keyboard.

3. METHODOLOGY

This system include a Text-to-Speech module, Speech-to-text ,an Android application and a text Pre-processor Module.Android application include user interface for audio input which will act as command for operating the E-mail services. the speech to text module will compose email and for writing the subject and the body of the mail then send the email to the particular address.

Further attachment operations can be carried out while sending the E-mail. The text Pre-processor module will process the text created by the speech to text module and then further system will work once the output is correct.The punctuation marks will be recognized and the sentences will be restructured as per the requirement.On the other hand this system will be able to send email, also attach documents when needed.



The proposed system is totally independent of using the keyboard and the mouce click therefore,the visually challenged person can use E-mail Service with ease.

4. CONCLUSION

This system will help in overcoming some disadvantages that were earlier faced by the blind people in operating email service.

The voice-based email system will be used for providing help to the visually challenged people around the globe.

The proposed system is developed to send the email with use of voice commands only the system is totally independent of keyboards and clicks for accessing the email.

This system will be reliable and cost of installation is very cheap.

5. REFERENCES

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