

Voice based E-Mail System for Blind people

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ABSTRACT

Internet is widely used in almost all the communication applications due to its simplicity and accessibility. Every human is widely accessing the knowledge and information through internet. Out of these numerous applications, E-mail is the most widely used and easy way to communicate with each other. The usage of e-mail is quite easy and Easy to understand and clear for regular users but when it comes to the user with visual defect like blind people, the system very difficult to use. However, blind people face difficulties in accessing these text materials, also in using any service provided through internet. This paper thus aims to provide voice assistance for them and provide voice based e mail system application. The contribution made by this research has enabled the Blind people to send and receive voice-based e-Mail messages in their native language with the help of a computer

Keyword: - Speech-to-text, text-to-speech, Speech recognition, Voice based Email for blind person, visually impaired, Interactive voice response.

I. INTRODUCTION

This application is based on using speech-to-text and text-to speech converters, thus enabling everyone to control their mail accounts using their voice only and be able to read, send, and perform all the other useful tasks. The Text-to-Speech module gives audio output of the mail received, the sender, the subject and the body of the mail is read out by the system. Internet has made life of people so easy that people today have access to any information they want easily. Communication is one of the main fields highly changed by Internet. E-mails are the most dependable way of communication over Internet, for sending and receiving some important information. But there are also differently abled people in our society who are not gifted with what you have. There are some visually impaired people or blind people who can't see things and thus, can't see the computer screen

or keyboard. Therefore, we came up with our project as voice based email system for blinds which will help a lot to visually impaired peoples and also illiterate peoples for sending their mails. This system aims at developing an email system that will help even a visually impaired person to use the services for communication without previous training. The system is completely built on interactive voice response which will make it userfriendly and efficient to use. The entire project is based on voice interaction which means speech recognition.

EXISTING SYSTEM

The Simple e-mail systems are available in which only voice recognition & text-to-speech systems are accessible. The most common mail services that we use in our day-to-day life cannot be used by visually challenged people. This is because they do not provide any facility so that the person in front can hear out the content of the screen.

PROPOSED SYSTEM

In this system mainly three types of technologies are used namely:

- STT (Speech-to-text), here whatever we speak is converted to text.
- TTS (text-to-speech): Here the systems read text loudly, this method is opposite of STT.
- While filling up the necessary fields, speech would be recorded in database. Very frequently used words will be present i.e., when user would speak, it would get typed automatically.

After successful login the user would read the received mails present in inbox and also can send the mails.

In voice based E-Mail system Application we can access Mail From our Existing Mail system. We can received Mail from that existing system .Also We can send E-mail from this application to existing E-Mail System. The main benefit of this system is

that the use of keyboard is completely eliminated, the user will have to respond through voice and mouse click only.

II. LITERATURE SURVEY

A voice-based email architecture is proposed which will help blind people to access email. The existing system is not user friendly for blind people as it does not give any audio feedback to readout contents for them. The proposed system makes use of Speech Recognition, Interactive Voice Response and Mouse Click events. After login, users can perform normal operations of a mailing system. System options are: Compose, Inbox, Sent Mail. The user can switch between these using voice commands. The complete system is primarily based on speech to text commands. The Main activity Screen will be the First screen to be displayed on start of the app. This screen waits for the user to press the button so that the system will start accepting voice commands. And this is a full-sized button so they can press anywhere on the screen. Then using Voice commands users can send, read emails.

the system uses mainly three technologies

- Speech to text
- Text to Speech.
- Interactive Voice Response.

In paper We have proposed an email system which can be accessed easily by blind people. The use of Speech to Text convertor, Text to speech convertor. The user needs to register to the website when they visit the site for the first time.

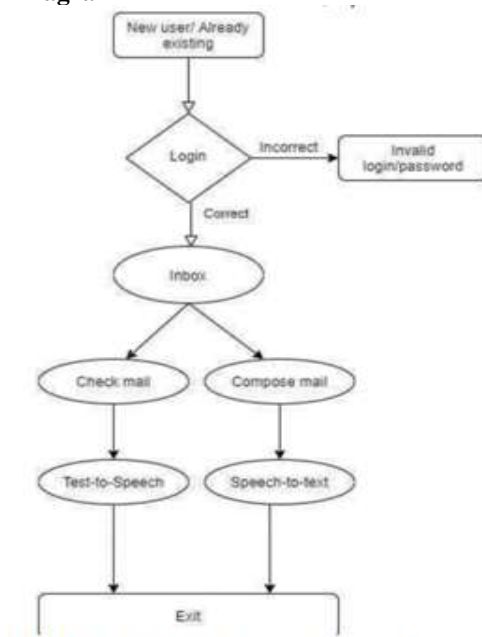
Disadvantages Of Existing System

The existing mail services do not provide easy access to the visually challenged people because they are in written format or any type of attached information and there is no read out option to hear the mail that is received to their mail addresses.

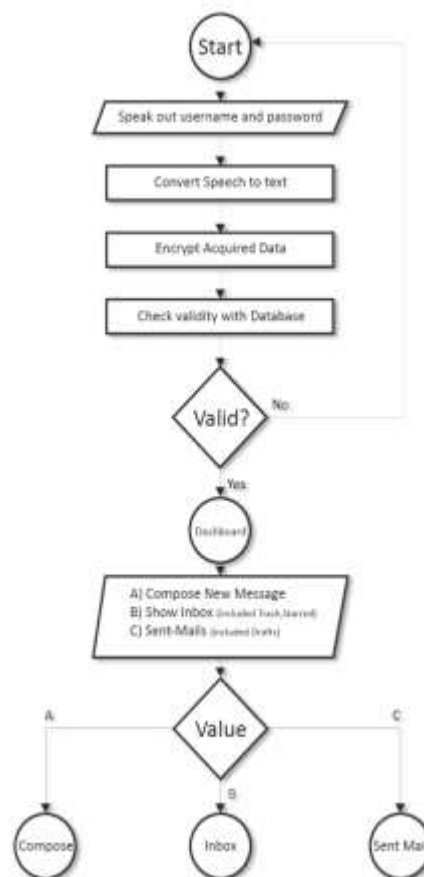
ADVANTAGES

- More efficient.
- Requires less effort and time.
- This system makes the disabled people feel like a normal user.
- They can hear the recently received mails to the Inbox.
- User Friendly (The Blind Person Can Easily Use This Application)
- Easy Storage of data.
- It also helps handicapped and illiterate people.

ER Diagram



LOGIN AND DASHBOARD FLOWCHART



III. SECURITY

Users with account information such as passwords and usernames are provided due to authentication, ensuring that the user has the right password and username every time they need to sign in to the app. Therefore, this data should be stored in a database for future comparison. For identification, we will apply the control system to the user.

Keeping a password straight can be dangerous and a simple and easy way to keep the password simple and show them how to create a table in the database. When the user login request arrives, the server will be called in to see the live load to store the username and password. This information will then be redirected to the password stored in the database. Finally, if the login is successful, the user will be able to access the app.

IV. CONCLUSION

This e-mail system can be used by any user of any age group with ease of access. It has feature of speech to text as well as text to speech with speech reader which makes designed system to be handled by visually impaired person as well as blind person. This paper is the proposed Voice based Email system for visually impaired people, which is developed as an application which helps the blind and handicapped people to access mails easily and efficiently. In future, we attempt to make the system keyboard free and fully voice based. So, it's easy for the visually impaired people to access the services. The system developed now is working only on desktops. As use of mobile phones is emerging as a trend today, there is a scope to incorporate this facility as an application in mobile phones also.

With the use of technically advanced smartphones, such systems and applications have a chance to be implemented as an App in smartphones. It provides a voice-based mailing service where the visually impaired person or Blind Person could read and send mail by their own without the help of others. It uses a speech recognition application which provides an efficient voice input method for mailing devices for blind. It is also useful for handicapped and illiterate people.

V. FUTURE SCOPE

This voice-based email system is useful for Blind Persons since it allows them to easily understand where they are. For example, whenever We visit in login page if we click on mouse button on page then it directly goes to adding email account and it will sounds like "please Enter your

E-mail" isn't a significant difficulty for those who can see, but it's a major concern for those who don't have the gift of sight because it intersects with so many job obligations. This method places a greater emphasis on user friendliness for all types of users, including typical people, visually impaired people, Blind people and illiterates. It can be expanded to read certain emails. Marking emails as read or unread, as well as all of the other features that comes standard with the Gmail service.

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