Voice Based Email System for Blinds

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ABSTRACT:

Internet is one of the main things of everyday life. Everyone uses internet facts and information. On the other hand, blind people have more problems accessing textual resources. Advances in computer access systems are opening up the world to the visually impaired.In this project, the architecture of a voice mail system that can be used by a blind person to access e-mail easily and efficiently. The contribution of the project enabled blind people to send and receive voice mails.

Since blind people are able to live on their own just the same as everyone else, they also receive mail like everyone else does. And, just because they are blind does not mean that they are exempt from bills or other responsibilities, such as filling out necessary paperwork.

Keywords: Mail,IVR, STT, Blind Person, Internet.

1.INTRODUCTION:

Visually impaired users face many challenges and barriers when using computers at home and at work, including difficulty accessing websites and using software.

The challenges of using e-mail for the blind have not been studied in detail, so a better understanding of all the problems that exist can lead to improvements in the interface of the e-mail software. To help understand the challenges faced, an online survey of blind people's e-mail use was developed in late 2008 and administered by researchers in early 2009.

No work can be finished without use of internet. Electronic mail is the most important part in day to day life. But some people in today's world don't know how to make use of internet, some are blind or some are illiterate. So it goes difficult to them when to live in this world of internet. Nowadaysthere are various technologies available in this world likescreen readers, TTS, STT, etc. but these are not that more efficient for them.

2. SYSTEM ANALYSIS

EXISTING SYSTEM: -

The existing system of this project is normal message send and receive E-mail application. This system has no any voice features included. Blind peoples are only identifying the text using keyboard. So they are could not identify their message is send or not, then could not identify the newly received message.Since they can't see what's already on the screen, they don't know where to click to perform the necessary actions. For the visually impaired, using the computer for the first time is not as convenient as the average user, although it is user-friendly. Although there are many screen readers available, these people also face difficulties.

DISADVANTAGES OF EXISTING SYSTEM:

The existing mail services do not provide easy access to the visually challenged people because they are in type 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.

The application that could help user to send and receive mails in English language. It was found that the proposed system architecture performed better than the existing architecture.

PURPOSE OF THE SYSTEM:

This project is proposed for the betterment and help of society. This project aims to help visually impaired people become part of the growth of digital India by using the Internet and also aims to make life easier for these people. Besides, the success of this project will also encourage developers to build something more useful for the blind or illiterate people who also deserve an equal standard in society. People with typing problems

can also take advantage of this system.

PROPOSED SYSTEM:

The proposed system is mainly developed to include voice functions in the mail system. The visually impaired can easily give voice input to the system, then the system will automatically recognize and open the appropriate web page. Voice output is done automatically for newly received messages. The proposed system, a web system, is said to be completely accessible only if it can be effectively used by everyone, who may or may not. The currentsystem does not provide this access. The complete system is based on Interactive Voice Response.

ADVANTAGES OF PROPOSED SYSTEM:

❖　One of the major advantage of the system is that user won't require to use keyboard.
❖　User friendly
❖　More efficient
❖　Requires less effort and time.
❖　It also helps the handicapped and visually impaired people.

3. DEVELOPMENT ENVIRONMENT

HARDWARE REQUIREMENT:

Processor :　AMD Processor
RAM:　256 MB
HDD:　40 GB
FDD:　1.44 MB

SOFTWARE REQUIREMENT:

Front End:Angular JS,PHP
Back End: MySQL
Server:　Wamp

4. MODULE DESCRIPTION:

Registration

The users are register their information in this module, then account would be created and produce the confirmation voice message.

1. Go to the Account sign in page.
2. Click *Create account*.
3. Enter your name, gender, and your city using voice.
4. In the "Username" field, enter a username.
5. Enter your password.

Login

This module has authenticated the user's username and password is correct or not. If it is correct user can access their account. Otherwise the system has produced the voice message to the user "Your username and Password is wrong. Normally the login page is loaded after enter username and password in the required places. But in this project it will load after tell the username and password using voice.
A login form contains only two fields, i.e., username and password. Each user should have a unique username that can be an email, phone number, or any custom username. After submitting the login, the code checks whether the credentials are authentic or not to allow the user\to access the restricted page. If the users provide unauthentic credentials, they will not be able to forward the login page.

Username and Password:

Take username and password as user string input. Check if the username matches the password. If it matches, welcome user. Otherwise it says "Your username and password are incorrect".

Dashboard

This module has capture the user's voice input and then opens the relevant page. The pages are Compose, Inbox and Logout.

Compose

This module sends a user's message to other users and contains the recipient's email id, subject, message and file (this action can only be done with the mouse). An attachment is just a file (like an image or document) which will be sent with your email. For example, if you are applying for

a job, you can send your resume as an attachment and the email part is a cover letter. It's a good idea to include a message in the body of your email explaining what the attachment is, especially if the recipient isn't expecting an attachment.

Inbox

This module produce delivered message from the sender, it comes from the voice message and this module also includes to attach the files from their system(the file size max 1.5 MB)

Logout

In this module user can logout just say "logout" through voice.
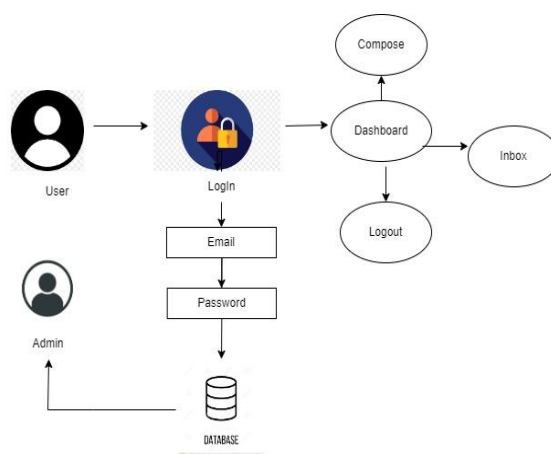
5. SYSTEM ARCHITECTURE

Fig: System architecture

6. CONCLUSION:

It involves the development and implementation of a real-time email interaction system for visually impaired people. Ihave planned to develop a system that could facilitate the visually challenged individuals to access email services inan efficient and easy way. This application can help in overcoming some of the drawbacks of the existing email system.

Inthis system, the use of keyboard has been eliminated completely and thus reduces the rememberingkeyboard shortcuts. Users only need to listen to voice commands given by the system and respond accordingly to achieve desired actions. It also helps people with some disabilities.

7. FUTURE ENHANCEMENT:

The main focus of future is Security while send and receives the voice mails, and also it comes from the all native languages. This system works better and more efficient in the future.This voice based email system has great system as it is used by blind people as they can understand where they arefor example whenever cursor touch any icon on the website say Register it will sound like "Register Button". It will definitely help the blind persons for their development, and it becomes one of the great one to remove the dark side of the blind persons.

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