

VOICE BASED EMAIL FOR VISUALLY CHALLENGED PEOPLE



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TABLE OF CONTENTS

ABSTRACT.....
.....
.....

INTRODUCTION.....
.....
.....

LITERATURE
SURVEY.....
.....

PROBLEM
STATEMENT.....
.....

FEASIBILITY
ANAYLSIS.....
.....

IMPLEMENTATION.....
.....
.....

REFERENCES.....
.....
.....

ABSTRACT

We know that in today's generation the people have access to send the information by sitting at home through internet as internet has made the life of people so easy. In today's time every person can send their information or files through internet. As such like emails are used by each and every person to send their information, documents or files through it. So, like we people can easily send the emails because we can see but what about the visually challenged people who cannot see and they face a problem being blind because it gets difficult for them to send the information as they always need some person to send their important information or files[3]. So this is all about these people who cannot see and want to send the mails by just their voice command. As in this we use speech recognition as it recognizes the voices and converts them into text. As they no longer need other person to send their mail, they can do it individually. So this is going to help both normal as well as specially visually challenged people to access their emails efficiently. So it will be for the betterment of the people by giving their equal rights to such visually challenged people. And this will provide the users to send the mails efficiently by using voice commands.

Keywords

Blind, visually challenged, emails, people, internet

Literature Review

Text to speech:- the text to speech will translate the text into the speech first then it will translate the number to equivalent words this is called text normalisation[5].

Speech to text:- When the persons speak the voice command of a person is converted into text and it uses speech recognition and the speech recognition consists of microphone so it will take the input and interpret the speech[4].

3. Mel Frequency Cepstral Coefficient (MFCCs):- The very first step we do in speech recognition system is that it actually extracts the features and that is to identify the audios and then it discards all the components which carries information like the background noises or any further disturbances. We need to understand that only one thing about the speech is that the sound is generated by a human and these are filtered by the shape of the vocal tracts like tongue, teeth etc. If we can determine the shape correctly it will probably give the accurate result of the phoneme being produced[6].

4. Existing System:- In today's existing system the users can easily have the benefit of managing and accessing emails via web facilities and so this makes email popular for the communication between the people. As the existing system does not support any audio feedback services so that is why this existing system is no use of specially impaired people as they will not be able to visualize things which are present on the screen so obviously they will face difficulties as they will not be able to use or access the email like the normal people. So in further more we are focusing on the visually challenged people as they can't send the mails and always need someone to send their mails[4].

Problem formulation

The proposed project is fully depend upon innovative idea and by adding voice commands to it. The aim is to focus on all types of people including normal and specially on visually

challenged people. So in this we are using speech recognition so that a person can say it vocally and it works according to their voice command . They can compose a new mail, send the mail , can go to inbox view, list them . They can easily access and manage the mails through their voice.

Required tools

Pip package management tool, access to the internet and a web browser, google account with gmail enabled, speech recognition, text to speech by installing the module gtts that is google text to speech, smtplib module which defines an SMTP client session object that can be used to send mail to any Internet machine with an SMTP or ESMTP listener daemon, os module is used to interface with the underlying operating system that would be windows, mac or linux and sys module it provides the information of the functions, methods and constants of the python interpreter.

Feasibility analysis

- a. Inbox:- It contains the received mail from the other persons and the mails are sorted in time manner. So if the user wants to open the mail then person has to command the system through their voice[1].
- b. Compose:- In this the person can write the mails that he/she wants to send the mail to other person. The users need to add the receipts subject and body. The person can write the mail by their voice command and it will convert the voice into text format[2].
- c. Sent mails:- It actually holds the mail that we have actually send to the other persons. The user can delete or can forward the mail[3].
- d. Draft:- Due to any Internet error or any other error if mail is not send then this will save these mails, which we can send or delete accordingly.
- e. Trash:- This actually holds the deleted mails from inbox, draft and sent mails. User can also restore the mail from trash and it will restore at particular location. If the user deletes the mail from trash then it will permanently get deleted from the system.

Complete work layout

By opening the application the user can login in to the login page and then it will ask the user to confirm the application password and if the users say yes or no it will work accordingly. If the users say yes then it will ask for the email id of user and its application password then it will ask the senders email id information. Then it will ask to confirm the email id and after the confirmation it will ask the user what you want to write and after giving the voice command to the system by using speech recognition as it will converts the voice into the text format. It takes the audio through the microphone of the system and so after that it will send the mail to the senders id. The mail will be send successfully to the recepients id.

Output

- Compose
- Inbox 5,372
- Starred
- Snoozed
- Sent
- Drafts 23
- More
- Archana +

1 of 6,374

your project Inbox x

archanouser1435@gmail.com 3:17 PM (31 minutes ago)

This is successful. Hence, this project is about the voice based email for visually challenged people.

Full-screen Snap

archanouser1435@gmail.com 3:19 PM (29 minutes ago)

to

This is successful. Hence, this project is about the voice based email for visually challenged people.

Reply Forward



No recent chats
Start a new one

Conclusion/Future enhancement

FUTURE SCOPE

The people who can see, for them sending emails is not a big deal but for the people who are not blessed with a gift of vision, it becomes a concern for them to communicate through mail. So, they are not able to send the documents or files on their own. So, using voice based email system the blind users can interact and send their mails by themselves. This project will reduce the problem and will be very helpful for all the types of persons including regular persons and visually challenged people.

ADVANTAGES

- This will help the visually challenged people to feel like a normal person.
- They can even hear the recently received emails and other email in the inbox

Thus this e-mail system can be used by any user of any age group with ease of access. It has all the features of speech to text as well as text to speech with the help of modules that we have imported. Thus this will be very helpful for all kind of users.

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