#### **ABSTRACT**

The Internet is perhaps the main types of extravagance in regular daily existence. Everybody utilizes realities and data on the Internet. Daze individuals, then again, will think that its hard to get to message assets. The improvement of PC programs has paved up plenty chances for the outwardly users. Contingent upon the visual climate that reacts to sound, screen perusers can assist many visually impaired individuals with getting to Internet programs. This venture presents a voice message program, which can be utilized by daze individuals to effortlessly get to email. Having part in research encourages daze people to receive and send the messages related to voice-based instantly. This can be done with the help of computer assistance in their own or home language.

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### 1.INTRODUCTION

The most common mail services that we use in our day-to-day life cannot be used by visually challenged people because they do not provide any facility so that the person in front can hear out the content of the screen. As they cannot visualize what is already present on screen they cannot make out where to click in order to perform the required operations. For a visually challenged person using a computer for the first time is not that convenient as it is for a normal user even though it is user friendly. Although there are screen readers available still these people face minor difficulties. Screen readers read out whatever content is there on the screen and to perform those actions the person will have to use keyboard shortcuts as mouse location cannot be traced by the screen readers. A user is new to computer can therefore not use this service as they are not aware of the key locations. The screen readers read out the content in sequential manner and therefore user can make out the contents of the screen only if they are in basic HTML format. Thus, the new advanced web pages which do not follow this paradigm in order to make the website more user-friendly only create extra hassles for these people. The most common mail services that we use in our day-to-day life cannot be used by visually challenged people because they do not provide any facility so that the person in front can hear out the content of the screen. As they cannot visualize what is already present on screen they cannot make out where to click in order to perform the required operations. For a visually challenged person using a computer for the first time is not that convenient as it is for a normal user even though it is user friendly. Although there are screen readers available still these people face minor difficulties. Screen readers read out whatever content is there on the screen and to perform those actions the person will have to use keyboard shortcuts as mouse location cannot be traced by the screen readers. A user is new to computer can therefore not use this service as they are not aware of th key locations. The screen readers read out the content in sequential manner and therefore user can make out the contents of the screen only if they are in basic HTML format. Thus, the new advanced web pages which

do not follow this paradigm in order to make the website more user-friendly only create extra hassles for these people.

Internet is a storehouse of today's world. It has even become one of the facto methods used in communication. And out of which one is email which is one of most common in every aspect of business world. However, not all can make use of it as until it's not visible it's of no use. This makes a completely useless technology for visually impaired and illiterate people. Even the system that are available currently like the screen reader TTS and ASR do not provide full efficiency to the blind people so as to use the internet. As nearly 285 million people worldwide are estimated to visually impaired it becomes necessary to make internet facilities for communication usable for them also. Thus, we have come up with this project in which we will be developing a voice-based email system which will aid the visually impaired people who are naive to computer systems to use email facilities in a hassle-free manner. The user need not worry about basic information regarding keyboard shortcuts or where the keys are located. All functions are simple mouse click operation he/she needs to perform in order to avail a given service as the system itself will be promoting them as to which click will provide them with what operations

There are 285 million people who are estimated to be visually challenged worldwide: thirty-eight million are blind and 247 million have low vision [1]. Thus, it turned out to be the ethical responsibility to give one thing back to society and develop an application for the visually impaired. The existing systems don't offer an entire voice-based application for a visually impaired person. [2] So, there emerged a necessity to make a voice-based application for such individuals so that they can send or receive the emails with ease by providing proper services. Email has turned out to be a crucial a part of formal communication in skilled world. For folks that can see, emailing isn't a giant deal, except for folks that are not blessed with ability of vision it poses a key concern as a result of its intersection with several vocational responsibilities. Therefore, we've attempted to develop a voice based email system which is able to aid the visually impaired individuals who are naive to such systems to use email facilities in a trouble free manner. The users of this application do not have to possess knowledge regarding keyboard shortcuts or where the keys are located. All functions are primarily based on

voice commands, thus making it very straightforward for any type of user to use this system.

# 2. Literature survey

It is estimated that there are a total of 4.92 billion email accounts existing in 2017 and there will be approximately 5.59 billion accounts by the end of 2019[4]. It is also estimated that there are a total of 340.2 million smartphone users in India in the year 2017 [5]. This makes emails the most used kind of communication. The prevailing email systems don't give any means of feedback or Talkback service. The most common mail services that we tend to use in our day-to-day life cannot be used by visually challenged people. This is as a result of they do not offer any facility in order that the person in front will listen the content of the screen. As they cannot visualize what is already present on screen they cannot build out where to click in order to perform the required operations. [3] For a visually impaired person employing a computer or smart phone system for the first time isn't that convenient as it is for a standard user even though it is user friendly. Though there are several screen readers offered then also these individuals face some minor difficulties. Screen readers speak out whatever content is there on the screen and to perform the particular actions the person will have to use keyboard shortcuts because mouse location cannot be detected by the screen readers. This means 2 things; one that the user cannot make use of mouse pointer as it is fully inconvenient if the pointer location cannot be derived and second that user should be versed with the keyboard on wherever each and every key is placed. A user who is new to computer will therefore not use this service as they're not conscious of the key locations. Also, there are some difficulties faced by visually impaired people when using smartphone systems. All these are some drawbacks of the present system that we are going to overcome within the application we are developing.

The project offers a voice message advancement program that visually impaired individuals can use to effectively get to mixed media administrations, like email.

Pros: System. However long the Web framework is utilized appropriately, it very well may be supposed to be completely open.

Cons: All capacities are upheld and can be handily made with a solitary mouse snap,

and clients of any style can without much of a stretch use it.

Author: Ruchi Khedekar Oct -2019

In this article, we are proposing a program that will help the outwardly hindered to get to email benefits all the more successfully.

Pros: Client show layout is constructed utilizing Adobe Dreamweaver CS3.

Cons: Likewise utilize the mouse to snap to track down the relating administration.

Author: Prof. Ila Sawant April 2019

This article intends to improve the email framework that can assist dazzle individuals with utilizing the application to convey in any event, when there is no noticeable inability. Pros: Framework totally depends on the given voice input which is intuitive, this helps the user to easily understand the framework and it is proficient.

Cons: Use mouse usefulness rather than console to change voice over to message.

AUTHOR	YEAR OF PUBLICATION	DESCRIPTIONS	PROS	CONS
Ms. Archana A. <u>Nikose</u>	March 2019	We provide voice mail architectural system that can be utilized by blind people to access multimedia functions such as e-mail efficiently.	system. A web system is claimed be perfectly accessible provided that it is used with efficiency	All functions are supported easy mouse click operations creating it terribly straight forward for any style of user to use this system.
Ruchi Khedekar	Oct -2019	In this paper we have proposed a system which will help the visually impaired people to access email services efficiently.	The User Interface Design is designed using Adobe Dreamweaver CS3.	use mouse clicks accordingly to get the respective services offered.
Prof. Ila Sawant	April 2019	This paper aims at developing an email system that will help even a native visually empaired person to use the services for communication without previous training.	The system is completely based on interactive voice response which will make it user friendly and efficient to use.	make use of mouse operation instead of keyboard for speech to text converter.

# 3. AIM AND SCOPE

This project 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

does not require the use of keyboard. Instead it will work only on mouse operations and speech conversion to text. This system can also be used by any normal person, for instance,

by someone who is unable to read.

### 4. EXPERIMENTAL OR MATERIALS AND METHODS

The complete system is based on voice prompt and clicks events. When using this system the computer will be prompting the user to perform specific operations to avail respective services and if the user needs to access the respective services then he/she needs to perform that operation. One of the major advantages of this system is that for the most part, the user won't require the use of keyboard. All operations will be based on mouse click events. Now the question that arises is that how will the blind users find location of the mouse pointer. As particular location cannot be tracked by the blind user, therefore the user has to traverse the mouse throughout the screen from top to bottom and then left to right. This system will be perfectly accessible to all types of users as it is just based on simple mouse clicks and there is no need to remember keyboard shortcuts. Also because of this facility

those who cannot read need not worry as they can listen to the prompting done by the system and perform respective actions. The general design architecture of the system depicts the interaction of the subsystems

an interactive chat bot has been implemented which runs through voice commands. After developing chatbot we have created module for sending mail through smtblib library here we can access many features like Cc, Subject, Text entirely through voice commands.

Here chatbot has many commands to run web applications such as YouTube, google, weather in current city, search information in google engine, search about a person have a brief description about 3-5 lines spelled through voice.made a user interface where voice commands are displayed in message box

#### 4.1 PROJECT IMPLEMENTATION:

4.1.1 SMTPLIB: - A basic mail move convention. The SMTPLIB module characterizes a SMTP customer meeting thing, which can be utilized to send email to any Internet gadget with a SMTP audience.

application in mobile phones also. Also security features to be implemented during login phase can be revised to make the system more secure.

This mail system based on voice is very effective and helpful for people who are visually impaired. This system also has the ability to convert speech to text and text to speech with the help of speech reader which is useful for blind people as well as visually impaired person.

The application will detect the voice commands of user and with the help of interactive voice response user can interact with the application easily and efficiently. The user only needs to speak the predefined keywords for each action to take place such as Login, Send, CC, BCC, Delete, etc.

To make the application more secure encryption and decryption algorithms can be used to increase the users trust while logging in. The algorithm can be made smart.

### SOURCE CODE:

#!/usr/bin/env python
# coding: utf-8

# In[1]:

import speech\_recognition as sr
import pyttsx3
import datetime
import wikipedia
import webbrowser
import os
import time
import subprocess

import wolframalpha