

VOICE BASED EMAIL SYSTEM

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Abstract— Developing a smartwatch that enables a user to send an email to any intended recipient using speech recognition. The user shall press the dial of the watch once so as to start the email application. The watch generates a haptic feedback indicating the user that the app has opened. The user then dictates the name of the intended recipient and enters the content in the body. The mail is sent once the user commands 'send'.

Keywords—Blind; Smart-Watch; Voice Recognition; Email

I. INTRODUCTION

Internet has become one of the basic amenities for day-to-day living. Today, in world communication has become very easy with evolution of many communication technologies using internet. In today's rapidly growing internet era, it has become more and more important to communicate via OTP services like WhatsApp, Email etc. Hence it has become a necessity to learn and use Emailing. Traditional keyboard typing is difficult to visually impaired and blind people as they need to be dependent on others for the same. Voice recognition can help a wide variety of people[1]. It's useful for anyone who finds typing difficult, painful or impossible. Using voice recognition software to dictate your words and control your computer is now a realistic option for many people. Although the technology is widely available, one size never fits all. Voice recognition software provides an alternative to typing on a keyboard. At its simplest, it provides a fast method of writing on a computer – you talk into a microphone and your words appear in a text file on screen[1]. Around 39 million people are blind and 246 people have low vision and also 82 of people living with blindness are 50 aged and above. We have to make some internet facilities to them so they can use internet. 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. The users of this system don't need to remember any basic information about keyboard shortcuts as well as location of the keys[2].

II. EASE OF USE

A. Scope of the Project

For people who can see, emailing is not a big deal, but for people who are not blessed with gift of vision it postures a key concern because of its intersection with many vocational responsibilities. This voice based email system has great application as it is used by blind people as they can understand where they are. E.g. whenever cursor moves to any icon on the website say Register it will sound like "Register Button"[4]. There are many screen readers available. But people had to remember mouse clicks. This system will reduce this problem as mouse pointer would read out where he/she

lies. This system focuses more on user friendliness of all types of persons including regular persons, visually compromised people as well as illiterate. This system makes the disabled people feel like a normal user. They can hear the recently received mails to the Inbox, as well as the IVR technology proves very effective for them in the terms of guidance.

B. Aim and Objective

The project aims to develop a voice based email system that would help blind people to access email in a hassle free manner with the help of a smart watch. The system will not let the user make use of the keyboard instead will work on speech recognition. In today's age much of the communication takes place through internet. In order to make the visually challenged person take the benefits of the internet we come up with our project of voice based email system through smart watch. The smartwatch will recognize the speech and convert that into text hence user friendly for them. It will be connected to internet via Bluetooth or wifi-hotspot or stand alone internet connection so that the respective email can be sent to the receiver. Arduino smart-watch processor will be implemented so as to get the access of bluetooth, wifi and battery status.

III. EXISTING SYSTEM

The existing system have some of the drawbacks which has been overcome through this project:-

) Many of the mail services in today's world are of no use to visually impaired people because they do not provide audio feedback.

Impaired people had to remember & recognize the characters of the keyboard which was very difficult on their path. The problem was later solved using Braille keyboard, but these keyboard were very costly.

. Visual Layout:- A screen reader cannot survey the entirety of a screen as a visual user may do. They can quickly realize a web page and realize how a page is organized.

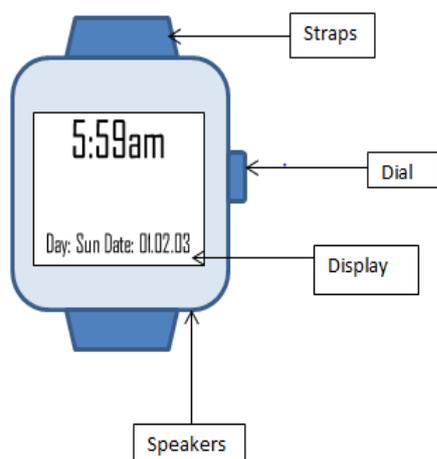


Fig. 1. Graphical user interface of the smart watch

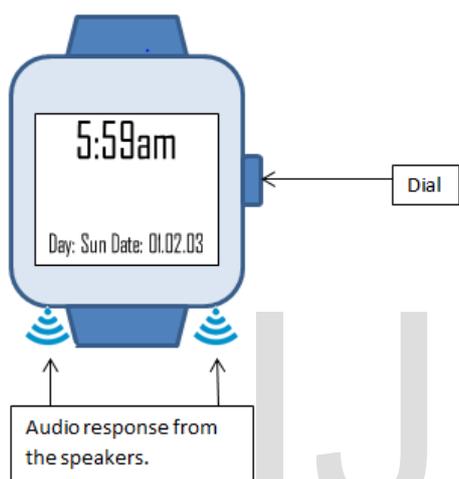


Fig. 2. Audio response from the smart watch

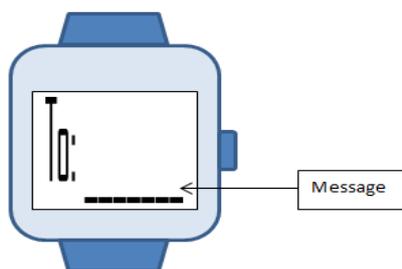


Fig. 3. Text Input

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Acknowledgment

The authors would like to thank our mentor Mrs. Teena Verma of Computer Engineering Department, Xavier’s Institute of Engineering, Mumbai, India for her constant guidance, suggestions and inspirations throughout the process of this project.

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