Universiti Teknologi MARA

Vobmap - Voice-based mail application using API technology for visually impaired

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"The name of Allah, Most Gracious and Most Merciful"

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ABSTRACT

As the progress in the technology becomes rapidly, communication over distant becomes very crucial for people including visually impaired too. There were many improvements been introduced, however the visually impaired people still find it very hard to utilize todays communication technology because of their vision incompetency. Most of the available application for communication needs visual perception making it difficult to be access. Therefore, the objective of this project is to develop a prototype of a voice-based mail application using API technology to assist the visual impaired user send email in an effortless way. Besides, this research also is done to encourage people with vision difficulties to use email where even though with vision loss, they can still use social media and will feel normal like other poeple. This application is design specifically for people with visual impairment such as blurred vision, far sighted, near sighted and sightless. The application is using Txt to Speech (TTS), Voice Recognition and Javamail API making it easy to use even to a naive visually impaired without training because it only requires user to communicate through voice. This application will also benefit illiterate people who are not able to read and is completely based on interactive voice response which will make it user friendly and efficient to use.

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CHAPTER 1

INTRODUCTION

This chapter provides the background of the project, which is Vobmap and. It also gives details of significance of the study. It also deliver information about Vobmap and the problem that led to the development of this project.

1.1   Background of Study

Internet is considered as a major storehouse of information in today's world. No work would be complete without the assist of it. It has even become one of the techniques mostly used in communication. Email is one of the popular regular forms of communication especially in the business world. However not all people can use the internet. This is because the user need to know the content of the screen to access the Internet. It is hopeless if it is not able to see. Internet will become completely pointless technology for the visually impaired and illiterate people (T.Shabana, A.Anam, A.Rafiya, K.Aisha, 2015).

Normally people use mouse and keyboard to handle the computer and access the information. Normal people are able to see contents on the screen and therefore they can do whatever they want, but for sightless people it is not possible to read the contents on the screen without eyesight. In order to check weather forecast of their city from the internet they have to open the browser first and then open the particular weather forecasting website and choose their city. This can easily be done by normal people and who has the basic knowledge of how to use the computer and the internet, but the blind people needs some help to use the internet (J.Nilesh, P.Alai, C.Swapnil, B.M.R, 2014).