TapTapSearch : A Intelligent Cloud Based System For Visually Impaired

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***Abstract* - The visually-impaired segment of the population, the inability to read has a substantive negative impact on their quality of life. Printed text (books, magazines, menus, labels, etc.) still represents a sizable portion of the information this group needs to have unrestricted access. Over the years speech recognition has taken the market. The speech input can be used in varying domains such as automatic reader and for inputting data to the system. Speech recognition can minimize the use of text and other types of input, at the same time minimizing the calculation needed for the process. A decade back speech recognition was difficult to use in any system, but with elevation in technology leading to new algorithms, techniques and advanced tools. Now in this system it is possible to generate the desired speech recognition output. One such method is AES which is used in this paper. Voice or signaled input is inserted through any speech device, speech can be processed and convert it to text hence able to send SMS, also Phone number can be entering either by voice or you may select it from contact list. Voice has opened up data input for a variety of user's such as illiterate, handicapped, as if the person cannot write then the speech input is a boon and other's too which can lead to better usage of the application.**

***Keywords* - Text-to-speech, AES Security, Speech recognition,visually impaired ,Tracking.**

I. INTRODUCTION

For the visually-impaired population, the inability to read has a great negative impact on their life. Books, magazines, menus, labels, etc. it represents of the information this people should able to access to it. Hence, developing system by which text can be retrieved and read out loud to the blind is difficult. In this work, we discuss the design and implementation of two different platforms, in one, we combine todays. Smartphone capabilities with the advantages offered by the rapidly growing cloud. Our system makes use of local resources for the Text-to-Speech (TTS) conversion. However, despite of the great research efforts in this area, the world of information such as newspapers, books, sign boards, and menus remain mostly out of reach to visually impaired people.

Prototypes are successfully developed and tested with favorable results.Approximately285 million people around the globe suffer from some sort of visual disability, with 39million being completely blind. According to the World Health Organization (WHO), 1.4million blind individuals are minors under the age of 15, and 90 of people with impairments live in low and middle income countries.Therefore, visual impairment and leading

to feasible solutions to reduce the burden of it is issue that requires the attention of researchers in industry as well as in academia. Furthermore, today technological advancesprovide an ideal and necessary base for produce optimal and cost effective solutions to this difficult problem.

Hence, in an effort to seek an answer to this persistent problem, a different technology based solution is developed using our project. The advancement in computer based systems has opened up many avenues for the visually impaired across a globe. Audio feedback based virtual environment like, the screen readers have helped Blind people to access internet applications more. However, a large section of visually impaired people in different countries in particular, the Indian sub-continent could not benefit much from systems.

II. IMPLEMENTATION

To address the challenge described in the previous section, researchers have attempted to ease the burden on blind people by proposing various techniques that converts text to audible sounds. Voice commands can be used to guide the user and direct the platform. The app was tested with blind individuals to gather accurate opinions on their feelings towards the application and their uses and it received positive input.

III. LITERETURE SURVEY

1.	Voice Helper	2015 IEEE	It support only android 4.3 versions
2.	Read2Me	2016 IEEE	It filters 4.3 the online books.
3.	Intelligent Hands Free sppechsms system	2016 IEEE	The system support for sending sms which is text
4.	Mobile Reader	2016 IEEE	The language used for TTS
5.	End-to-end Text document	2012 IEEE	Only text detector was used for conversion.

Fig.Literature survey.

IV. TRADITIONAL SYSTEM

The traditional system is system is user dependent such as the user has to manually perform all the tasks needed by him. No speech interface to perform the tasks. Speech interface cannot be applied to the browser. Authentication cannot be done automatically. Reader for information is not available.

A. Voice Helper

In this Paper, visually impairedpersons need assistive tools for operating digital devices so thatthey could get and apply digital information while learning, living and working. The voice helper, which transforms digitalinformation to text and then to voice by TTS (Text-To-Speech), iswidely used to help visually impaired persons to operate devices.This paper focused on designing and implementing an assistivesystem for visually impaired persons while using Android smartphones. The system, Voice Helper (VH), integrates open sourcesand also enhances many functions of them. VH includes themessage reader, text file reader, voice dialer andvisually disabled dialer to facilitate daily activities for visuallyimpaired persons. In addition, it provides the Navigation Readerfor walking and riding, which is based on Google Maps andsupports more detailed voice guidance for the distance to adestination and directions of moving. The operating environmentof VH is integrated and verified by visually impaired persons.

B. Read2Me

Visual impairment and finding feasible solutions to reduce the burden of it is a timely issue that requires the attention of researchers in industry as well as in academia. Furthermore, Today's technological advances provide an ideal and necessary base for finding optimal and cost effective solutions to this frustrating problem.
The project aims to implement a reading aid that is small in size, lightweight, and efficient in using computational resources, cost effective and of course user friendly.

V. PROPOSED SYSTEM

Printed text still represents a sizable portion of the information this group needs to have unrestricted access. Hence, developing methods by which text can be retrieved and read out loud to the blind is critical.

In this work, we discuss the design and implementation of two assistive platforms, we combine todays' smartphone capabilities with the advantages offered by the rapidly growing cloud resources. Our approaches makes use of local resources for the Text-to-Speech (TTS) conversion.

VI. ARCHITECTURE

For the visually-impaired population,the inability to read has a great negative impact on their quality of life. books, magazines, menus, labels, etc. still represents information this people should be able access to it. Hence, developing system by which text can be retrieved d read out loud to the blind is difficult. In this work, we discuss the design and implementation of two different platforms, in one, we combine todays.

Smartphone capabilities with the advantages offered by the rapidly growing cloud. Our system makes use of local resources for the Text-to-Speech (TTS) conversion. Prototypes are successfully developed and tested with favorable results.

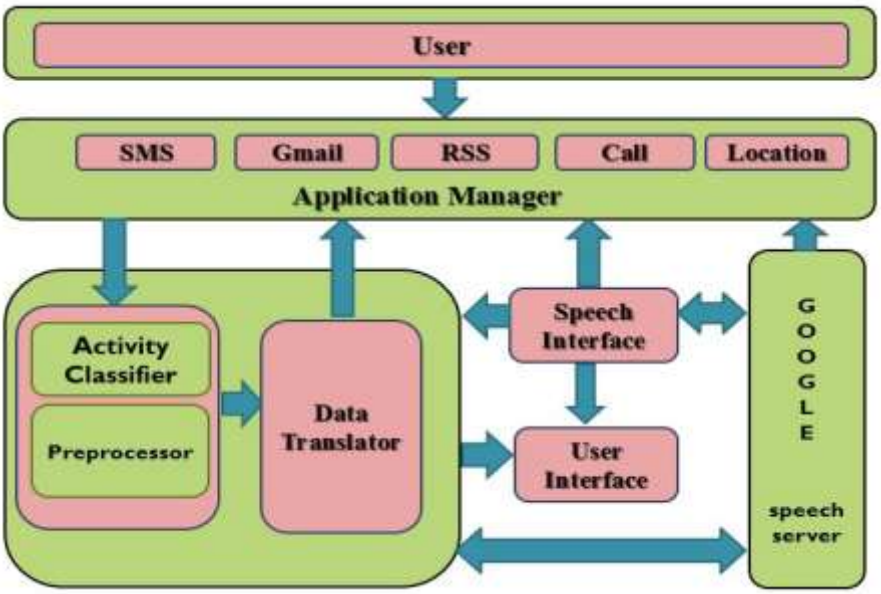

Fig.Architecture of system.

VII. SCOPE OF SYSTEM

The tap-tap system using mobile device is the cloud with android application and it will be also be deployed as a smart phone application. The purpose this application is to help the visually impaired to get daily activities done. This software application provides various functions such as accessing mails, twitters, location, news, calls, sms, etc. It maintains information in cloud created and also fetches the information from the cloud in the required order using SQLite. By using this application the visually impaired people would be able to access daily activities. The blind people would be able to get real time information easily.

VIII. CONCLUSION

Taptap search system is useful for blind peoples. This system is work for convert text to speech conversion (TTS). Books, magazines, menus, labels, etc. still represents information this people should be able access to it. Hence, developing system by which text can be retrieved and read out loud to the blind is difficult. In this work, we discuss the design and implementation of two different platforms, in one, we combine todays. Smartphone capabilities with the advantages offered by the rapidly growing cloud. Our system makes use of local resources for the Text-to-Speech (TTS) conversion. Prototypes are successfully developed and tested with favorable results. The advancement in computer based systems has opened up many avenues for the visually impaired across the globe. Audio feedback based virtual environment like, the screen readers have helped Blind people to access internet applications immensely. A large section of visually impaired people in different countries in particular, the Indian sub-continent could not benefit much from such systems.

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