



Communication between Deaf-Dumb People and Normal People: SILENCE SPEAK

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ABSTRACT: Chat applications have become a powerful media that assist people to communicate in sign languages with each other. There are lots of chat applications that are used different people in different languages but there are not such a chat application that has facilitate to communicate with sign languages. Sign languages are used by deaf and dumb people to communicate among them but those Sign languages normal people cannot understand easily and not communicate properly to the deaf and dumb people. The system has trained for the speech and text patterns by using some text parameters and Signs of Sinhala Sign language is displayed by emoji. Those emoji and signs that are included in this system will pave a new way for the normal people to be more close to hearing disable people and also hearing disable people to be more close to normal people. Most mobile applications that have been developed that use Speech-to-Text technology have been inconsistent such that they are not inclusive of all types of hearing impaired individuals, only work under specifically predefined environments and do not support conversations with multiple participants. This makes the present tools less effective and makes hearing impaired participants feel like they are not completely part of the conversation.

Keywords: Sign language to Text message, Voice to Sign Language, Google voice recognition API, Sign language keyboard.

I. INTRODUCTION

Around nine billion individuals on the planet are hard of hearing and unable to speak. How regularly we run over these individuals speaking with the ordinary world? The correspondence between a hard of hearing and unable to speak individual's stances to be a major issue contrasted with correspondence amongst visually impaired and ordinary visual individuals. This makes an almost no space for them with correspondence being a principal part of human life.

In our everyday life the majority of the errand we complete includes talking and hearing. The hard of hearing and unable to speak individuals experience issues in speaking with other people who can't comprehend communication via gestures and miss-mediators. Hence forth correspondences between hard of hearing quiet and an ordinary individual have dependably been a testing undertaking. The quantity of almost totally senseless on the planet constantly expanding and they are thoughtful shut society. In this way, Deaf-Dumb individuals don't have typical open doors for learning.

Uneducated Deaf-Dumb individuals confront difficult issue in correspondence with ordinary individuals in their general public. It is outstanding, be that as it may, that most accessible application concentrate just on learning or acknowledgment of gesture based communication. The venture means to help tragically challenged particularly uneducated hard of hearing and unable to speak by giving them an appealing correspondence and as a learning instrument.

II. LITERATURE SURVEY

This paper presents a model that aims to address this by introducing the use of Multiple-Speaker Classification technology in the design of mobile applications for hearing impaired people. Furthermore we present a prototype of a mobile application called Deaf Chat that uses the newly designed model. A survey was conducted in order to evaluate the potential that this application has to address the needs of hearing-impaired people. The results of the evaluation presented a good user acceptance and proved that a platform like Deaf Chat could be useful for the greater good of those who have hearing impairment. The proposed sign language keyboard is built using Keyboard designer. Keyboard designer is a tool to create keyboards. With this tool, one can freely place all the buttons and provide them with functions and characters as we want. In the situation of any emergency the proposed app has the emergency module. This module helps the person to send an emergency message along with present GPS location to the added emergency contact. The user's GPS location will be notified to the emergency saved contact. In this way deaf and dumb can intimate their emergency situations and get the help without feeling any helplessness. As talked about above, there are fewer investigations that done on assessing the ease of use of the hard of hearing and unable to speak portable application. Numerous applications that have been created will in general be assessed by and large instead of containing the assessment into more profundity to test the ease of use. This could be a result of the point of the talk about examinations is fixated uniquely on the advancement that they will in general overlook the ease of use significance. To satisfy the improvement need, the specialists assess the

application by and large whereas in the genuine circumstance general assessment probably won't have the option to create persuading results since the prerequisite of hard of hearing individuals are diverse contrasted and typical individuals. Studies that were talked about before likewise shows that crippled are additionally needing innovation to guarantee they are not confined. Incapacitated need innovation particularly cell phones to speak with each other? In the future, the framework should be redesigned for voice to text and the other way around in a continuous call and this is the progressing research in the Google people group for better correspondence utilization.

III.WORKING MODULE

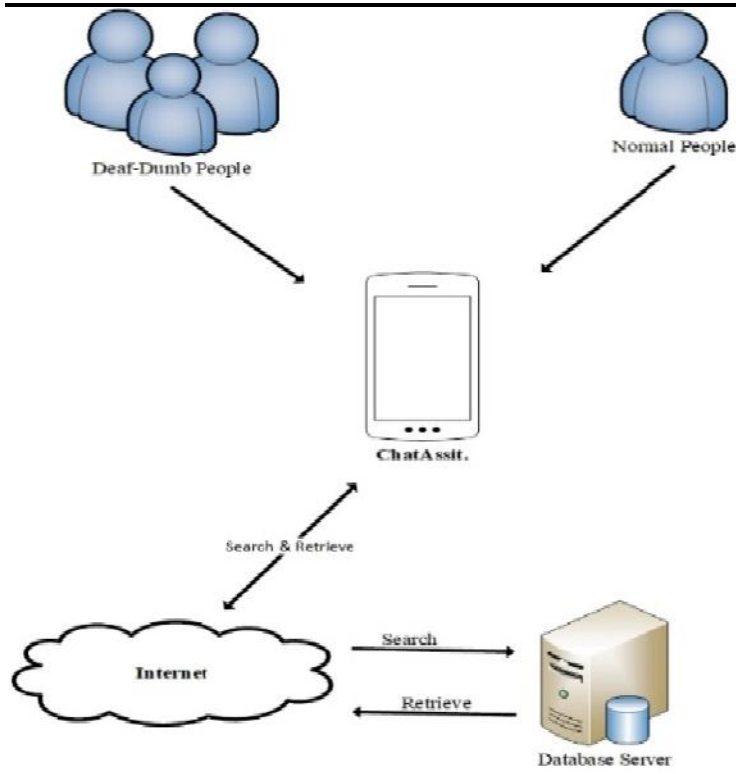
In our working module there are two module one is text messaging which is used to text message to text easily to the deaf people with sign language. And second is sign module which is used to convert text message into sign language without the help of third person .

1.Text Messaging Module

The Text Messaging Module helps the user to send the SMS/Text messages to any user. The module takes phone numbers and the text through the in-built feature i.e., Google keyboard. Text message is an act of composing electronic message to the right person and at the right time using real-time. The messaging feature acts a platform to communicate between deaf and dumb users with normal person in this digital platform. It is not a bot and there is response from the right person. This helps the deaf and dumb user to experience normal messaging feature in the proposed app itself.

2. Sign Language Module

The SMS option is featured with a sign language keyboard Sign language keyboard is a keyboard where each alphabet key is replaced with an equivalent hand-sign of Indian sign language). This keyboard is also provided with some emoji's that has a particular hand-sign to communicate general sentences like "hello", "how are you" etc., this helps the deaf and dumb user to communicate his thoughts over SMS by using the hand sign. This combination of hand sign keys are either converted to text or sent as it is to the intended user. The proposed sign language keyboard is built using Keyboard designer. Keyboard designer is a tool to create keyboards. With this tool, one can freely place all the buttons and provide them with functions and characters as we want.





Deaf and Dumb Chat







Home

Deaf & Dumb

Chat





Choose file

No file chosen

Upload



Hello



SUBMIT



IV.METHODOLOGY

The research is developed according to the prototype methodology. There was a necessity to run many iterations of the system phases. Therefore prototype methodology was selected to implement this system. Research team identified the research problem firstly. Then the research team gathered requirements about android chat application structures, hardware resources and software resources that were used for develop a chat applications. The research group had gone through around twenty research papers and analysed the details of the similar systems. The research team met a sign language teacher and had an interview. The information about Sign language words that were gathered in that interview was analysed. Then research team decided to design emoticons for those signs. The research team needed to observe the idea of normal people about this android chat application.

V.FUTURE WORK

A ‘SMS’ option has a feature, where the voice converted text can be sent to the intended user. The ‘SMS’ feature also contains a Sign language keyboard where hand-sign keys are used to type the message. The emoji’s are provided as a substitute to general sentences conveyed through one hand. The typed message can be sent as it is or converted to text and sent to the intended user. The user is provided with an “Emergency” feature, where the user can store some emergency contacts. When a power button is pressed thrice, his current location is sent via SMS to those contacts numbers. The user also has some other templates such as ‘help me’, ‘call me’, text options that are sent via SMS. The “Help Center” option is a learning tool that teaches Indian sign Language.

VI.CONCLUSION

We show a productive application for uneducated Deaf-Dumb application.

This application means to help not to sharp by furnishing them with an appealing correspondence and learning device. This work present a Mobile application that empower correspondence between uneducated Deaf-Dumb and typical individuals in our general public. It additionally build up a guide apparatus for hand of hearing and unable to speak in many fields like eateries, Hospitals and transportation, Besides, This application presents a simple interpreter from communication via gestures to English and the other way around.

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