Automatic Language Translator Messenger
Sudrik Shubham¹, Nagare Sushma², Kshirsagar Pooja³, Ghumare Kalyani⁴, V.V. Agrawal⁵

¹UG Student Department of CSE, COE, Chandwad, shubhamsudrik@gmail.com
²UG Student Department of CSE, COE, Chandwad, nagresush@gmail.com
³UG Student Department of CSE, COE, Chandwad, kshirsagar.puja06@gmail.com
⁴UG Student Department of CSE, COE, Chandwad, kalyani.ghumare@gmail.com
⁵Guide & AP Department of CSE, COE, Chandwad, vipuls.007@gmail.com

Abstract-In daily life of people, messengers or chatting applications provides ability for instantaneous messaging over the internet. Exchange of messages takes place in unanimously used languages like English. Where both the users identify how to communicate in a general language. Thus chatting on mobile phones is a comfort when both the parties concerned know a common language. Hence we are implementing application which is a Android based chatting application which makes cross language statement possible using mobile networking technology and programming. This application will facilitate the communication between two users irrespective of the language each user wishes to use independently. The variety of modes of communication accessible in this messenger is through text. Due to the best dispensation power provided among the accessible smart phones and elevated battery life we choose to work on Android platform. Thus we trying to implemented app that will connection the language barrier and enable simplicity of communication through this application.

Keywords: Crosstalking Communication, Direct messenger, Socket connection, Translator, Android phone app.

I. INTRODUCTION

In daily life communication technology is at its most excellent and communication happens every second. With innovative technologies like social networking sites like Wh missapp, Facebook and other types of messengers public are connected 24x7 and sharing of information is now a touch away. But when it comes to communicating with people of different civilizations or background language becomes a hurdle. A third person or a software is often needed to overcome this hurdle. In universe 6,000 languages are present, with each person having his own language, ethnicity and tradition. Looking at the variety in languages and having the above mentioned communicating technologies around, verbal communication becomes a hurdle. Some solutions to this difficulty can be using language transformation applications or software which allows you to enter the necessary text as input and get the output in the preferred language. But this is a prolonged task where the users have to frequently keep entering the text that is essential to be translated and understood. This way it is incompetent to maintain a continuous well conversation between two persons. Hence we are trying to implement an application which can progress these inefficiencies in communication. It is a messenger which will make easy people around the world to talk with each other constantly in the language of their own option not including changing between application to get the desired text translated and chat. It is an combination of a chatting application and a translator app which build the communication between different languages easier and more efficient. It eliminates another person or application to translate the text into the preferred language and thus save time. This application is based on three tier architecture the first tier contain of the clients who use the messaging crossing
point of the application. Application server is present in second tier which acts as a bond between the clients and the database server and the translation engine. The last tier the database server is present.

II. LITERATURE SURVEY

Google launched the Google translate API in 2008, which was used to convert phrases, sentences and content of website. At same time the Microsoft launched the Bing convert API. Both these can be implemented on different pitch for developing translator software. recognize the need for handy translator's mobile application developers produced many applications to convert text and photos using the Google and Bing API. Some of the applications are as follows: Google Translate is a at no cost app that allows translating speech, text, and even text into images by using Google translate APIs. It can convert between more than 70 languages and has an added feature of the results spoken aloud. The chat mode is ultimate for communicating with someone when you don't distribute a common language, but the app can effort with some pronunciation. There are also download online language packs in case there is no network connection for the application to work. iTranslate is one of the best popular translation application on iOS and is now available for android users as well. It is an app that covers more than 70 languages and offer a vocabulary. Romanization (which translate unfamiliar characters into English letters), by an in-app purchase. Bing Translate is Microsoft's free language translation suggest for Windows Phone similar features like Google converter but free of cost. It permits converting text, speaking into your phone, and hearing conversion spoken loudly. It also offers the option to snap a photo of a sign or a menu and convert the text within it. There's an online mode that permit to download a language pack and use the application even when there is no network connection.

The only drawback of these apps is that the text to be converted is to be copy pasted every time into the input region, hence users cannot continuously chat with persons in a different language. Also in certain application like i Translate two people can chat but both have to share a table top with a single machine. Thus we implemented this messenger where people can remotely chat in different languages. As whatsapp, facebook, twitter cannot provided this facility so we can implementing automatic language translator messenger application.

III. SYSTEM DESCRIPTION

This application first will ask for login into account and login is successfully done it will show the chat window. If any new user wants to register it will offer registration form and will assign register id to that user. Later on person will be required to use user login id or password to facilitate the chat application. Then person will select other user. Then both the users will select the language and then they will start communication to each other. Then our application will translate that text into selected language and then text will shown to receiver window. This will remove the communication hurdle between people. This chat system also offer the facility of file, image sharing etc and also user can set user profile.

IV. SYSTEM DIAGRAM

The system design will be as shown in the figure below
V. ALGORITHM

Steps:
1. Source text vocabulary lookup and morphological study
2. Identification of homographs
3. Identification of complex nouns
4. Identification of noun and verb idiom
5. Processing of set idiom
6. Prepositions processing
7. Identification Subject-predicate
8. Identification of Syntactic ambiguity
9. Separation and morphological processing of target text
10. Reorganization of words and idiom in target text

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>CHAT APPLICATION</th>
<th>GOOGLE CONVERTER</th>
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<tbody>
<tr>
<td>EFFICIENCY</td>
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<td>NO</td>
</tr>
<tr>
<td>CHAT SUPPORT</td>
<td>YES</td>
<td>YES</td>
</tr>
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<td>MORE</td>
</tr>
<tr>
<td>SUPPORT</td>
<td>YES</td>
<td>NO</td>
</tr>
</tbody>
</table>

VI. IMPLEMENTATION PLAN

6.1 Software Requirement
We will use Android Sdk Manager, AVD Manager for developing our smart chat application because it
combines different integral tools and it also supports many design languages and different forms.

6.2 Database:
We will use SQL to create a database for registry of users whose are logged into the system. The vocabulary for both the languages source language and target language (English, Marathi and Hindi) are provided to map the words. Linguistic and lexical rules are taken into consideration.

VII. FUTURE SCOPE
For business purpose two person in different country can communicate with each other and also for education purpose and for Personal chat.

CONCLUSION
This solution brings a new scope in online messaging and internet communication and demonstrates a powerful and fast language conversion engine. It can be used as individual internet users and also by companies.

REFERENCES