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"LANGUAGE TRANSLATION PLATFORM ON MACHINE LEARNING"

Dr. Srivani E N[1], Bhavana[2]

[1] Assistant Professor, Dept of ECE, SJC Institute of Technology Chickballapur, Karnataka, India srivani598.ece@sjcit.ac.in

[2] Dept of ECE, SJC Institute of Technology Chickballapur, Karnataka, India bhavanag2606@gmail.com

ABSTRACT :

In this study, a machine translation (MT) system is developed as a learning technology. The proposed system can be linked to a digital podiumand projector to reduce multitasking an important reason for using this framework is to exploit the high service bandwidth (up to several bandwidth) made available or interactive translation services the frame work is deployed by linking it to a video camera, digital podium, and projector in each classroom for the translation operation. According after employing the system , the effect on the understanding of the students of the technical aspects of the subject that was taught using English was evaluated. The results indicated that the use of the developed technology for translation during classroom session was beneficial. Furthermore, the engagement of students in the classes improved their performance and learning outcomes. The students also commented that the pro-posed framework is useful from two perspectives: vocabulary improvement and subject comprehension. Many of the students indicated that working on assign- ments and homework using the framework was useful because words difficult understand were translated.

Keywords : network, information science, machine learning, multimedia, server, client, language translation, application programming

INTRODUCTION :

Machine translation works by using advanced algorithms and machine learning models to automatically translate text or speech from one language to another. Here's how it generally happens:1. First, the input text speech is prepared via filtering, cleaning and organizing translation is necessary for the spreading new information, knowledge, and ideas across the world. It is absolutely new information, translation is something that can change history.

The language translators allow computer programmers to write sets of instruction in specific programming language. Theseinstruction are converted by the language translator into machine code. The computer system then reads these machine code instruction and executes them. QuillBot's online translator is powered by AI, so it learns by drawing from thousands of expertly written texts from around the world.

II.LITERATURE SURVEY

 "Development of machine learning based on sign language translator" by A Candra, R Rosmaluinda, Tk Intan 2024 the authors discuss the deep learning with an excellent ability to recognize objects, and mediaPipe is a machine learning. This study aims to develop a machine learning based sign language translator.[1]

"Neural machine translation of clinical text: an empirical investigation into multilingual pre-trained language models and transfer-learning" L Han, S Gladkoff, G Erofeev, I Sorokina 2024 author sounds like a fascinating research topic! It suggests exploring how multilingual pre-trained language models and transfer learning can improve the accuracy and efficiency of translation clinical text, which could have significant implications for healthcare accessibility and communication across language barriers. [2]

"Deep Neural Machine Translation (DNMT) Hybrid Deep Learning Architecture-Based English-to-Indian Language Translation" by M Nivaashini, G Priyanka 2024 the author discuss the deep neural machine translation (DNMT) from English to Hindi, Tamil, Telugu, Kanada we create hybrid deep learning systems in this work. A spoken language translation system based on machine learning.[3]

"Analysis of translation teaching skills in colleges and universities based on deep learning" by Y Liu, S Li, D Cui 2024 authors discuss, Analyzing translation teaching skills in colleges and universities through deep learning involves using neural networks to understand patterns in teaching methods, student performance, and language acquisition. This approach can identify effective strategies, personalize learning, and improve overall outcomes in translation education.[4]

"a computer survey on machine translation for English, Hindi, and Sanskrit languages" by Sitender, S Bawa, M Kumar, Sangeeta 2023 author discuss the language as well as translation models which can be resolved with the help of the NMT approach or hybridization with other approaches. Application of machine learning.[5]

III. WORKING PRINCIPLE

We import ttk modules from tkinter library and Translator, LANGUAGES modules from googletrans library, speech recognition modules, gtts module, Use tkinter library to create a window where we'll enter the text which we want to convert into voice. The above code create two text widgets one for entering text and the other for displaying translated text.
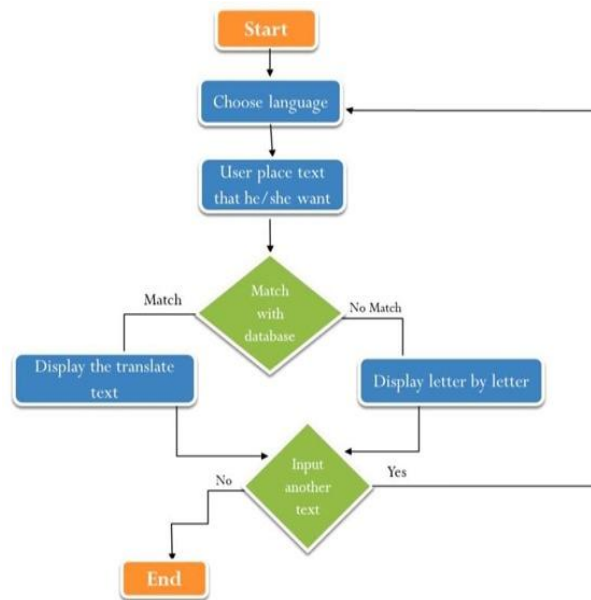

**Working diagram of language translation system on (ML)**

The Translate function will translate the message and give the output. Src gets the language selected as input text language dest gets the language select to translate text the input text entered by the user. "1.0" means that the input should be read from zero character to line one. When we click on the translate button on our window command.

IV. TECHNOLOGY

- Text /speak: that he/she want to translate.
- Language change: According to Understanding they can change language of the translation.
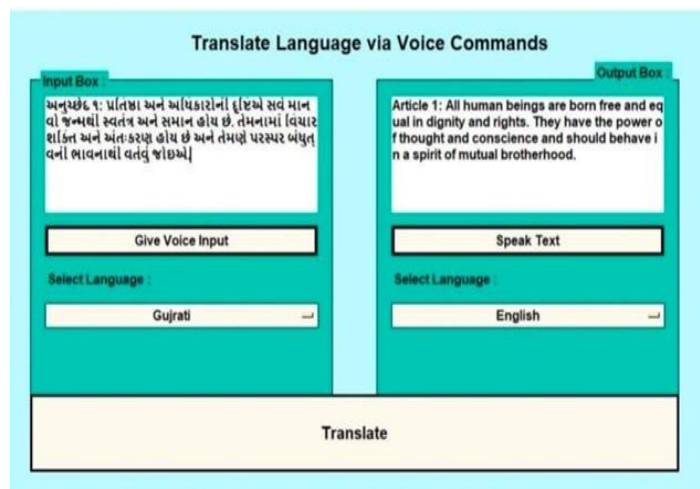
Translation Language via voice commands
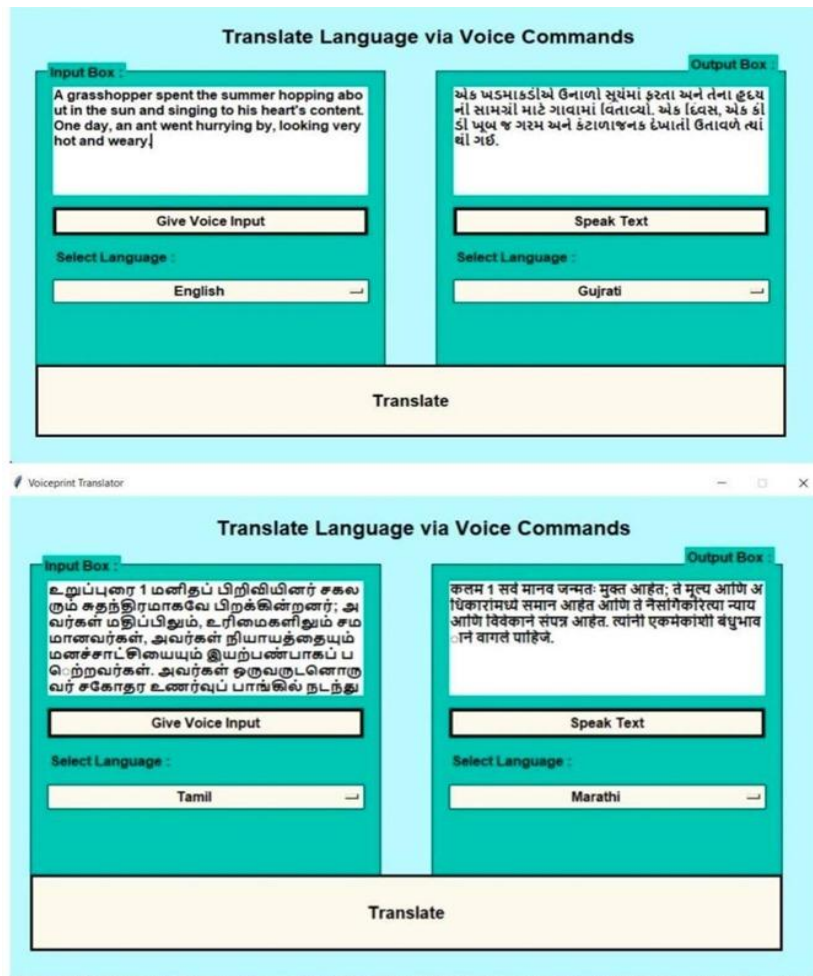
Translate Multiple Language via voice commands

IV. ADVANTAGES

- Better and Faster Language Translation on Machine-translated content.
- Decreased Time to Market and Increases the potential revenue growth.
- Increases cost effectiveness in language translation on machine learning.
- Higher Human Productivity.

V. CONCLUSION

In this proposed system, we implemented the system for user who phasing problems of language barrier and also it user interface is user friendly so that user can easily interact with this system. So automatically reduce the user task for understanding the language for communication. Translation is not merely at changing words, but also transferring of cultural equivalence with the culture of the original language and the recipient of that language as well as possible. the better translation must be accepted by all people in logic and based on fact; the message which contained in the source language (SL) can satisfy the target language (TL) reader with the information within. When you understand the importance for translation for everyone, you will be able to see it as a necessary and worthy investment.

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