



A Perspective of Translation in India: History and Methods

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Abstract

Translation plays a vital role to convey something from one person to another. Over the years, each state follows different language of their nation for communication. The concept of translation is to demonstrate the understanding of any event without any deviation in the intent of the language. By the way, translation has its reflection on culture, since each state follows dynamic from ancient days. This paper addresses the importance of the study of translation in India which is the main reason that stands to connect people together. India is a multilingual country having about 22 different languages for communication, beyond this there are mother-tongues too. Due to the multilingual country, the concept of translation is significant for converting the semantic of known languages to the other unknown languages. This translation is applicable while writing as well as speaking. The key goal of translation is to disseminate valuable information to different culture. In this paper, a review on the translation of languages in India, its challenges, advantages and disadvantages are studied from the top to bottom.

Keywords: Translation, Translation in India, Indian Languages, Challenges in Translation

1. Introduction

Over the decade, language is the basic thing to establish any thoughts in consecutive words i.e., as sentences. In order to recognize the concept, the language should be clear, actually each state is related to the languages [1], [2]. For instance, Punjabi is the language in the state of Punjab in India, similarly, Tamil is the language in the state of Tamil Nadu in India. In the study of translation, the knowledge and understanding are essential. Among these languages Sanskrit and Persian stands from the ancient history for interaction, where the Sanskrit is dominant on the north India [3].

Actually, it is not easy for an individual to be answerable for multiple languages, on the other hand it is complex to migrate from one culture to another. The translation act is introduced for the purpose of trans-culture evaluations and inter-cultural understanding [4]. In general, the translation is classified into three such as intra-lingual, inter-lingual and inter-semiotic. The intra-lingual performs translation for identical language, then the translation from one language to another is known as inter-lingual and the third type is to make translation for two different systems as verbal and non-verbal, which is defined as inter-semiotic.

2. History of Translation in India

In this section the history behind this translation is discussed to know the evolution of this concept in India. India is a country in South Asia having 29 states and 22 languages of people. From the history, these languages are bloomed in two-main categories of languages as Indo-Aryan and Dravidian [8]. Despite, of this category, the languages in India are Telugu, Sanskrit, English, Tamil, Hindi, Assamese, Gujarati, Konkani, Urdu, Kannada, Malayalam, Marathi, Odia, Punjabi, Bengali, Mizo and Meiteilon.

The Foster in 1958 launched this act for converting the main context of the text from the source language into understandable target language. As a result, the translator requires to be familiar with both the source and target language. If the translator is not familiar then the translation sounds poor in semantic, grammatical and style. The translation is necessary especially for religious book and awareness creating novel worldwide, further it helps to improve the wealth of one's nation. Since, the translator should have all the basic emotions to make it understandable and zero dissimilarity in the idea.

Table 1 Translation in India [5]

Year	Name of the Book
1784	Bhagavad-Gita
1789	Abhijnanasakuntalam
1837	Minute on Indian Education
1861	Dinbandhu Mitra's <i>Neel Darpan</i>
1877	Slayer Slain

In the year of 1954 the Sahitya Akademi have introduced the idea of working on an Indian Literature, based on the concept of all the religious region in India. Also, it is planned to be written in many languages. The table 1 depicts few translations in India with respect to the year of publication. The Indian poetry Rabindranath Tagore is noted for his translation of the Gitanjali from Bengali to English [6]. In this way, other poetry has marked their footprints in translation.

The process of translation is presented by translators who is practiced to express identical context from a language. In the year of 1988, the translation process is carried out as follows, source text level, referential level, cohesive level and naturalness [7]. In this consecutive process, the deconstruction methods take part in each level. The level-wise operations obtain grammatical structure, expressions, morphological meaning and so on. However, the task of translation by translators is quite difficult for developing the original context of the text and hence it is challenging for the translator.

The National Language Translation Mission (NLTM) is established with the aim of spreading knowledge in all the Indian languages for enhancing the education standard. As a recent update the NLTM incorporated to utilize Artificial Intelligence (AI), Machine Learning (ML) and Speech recognition technique from the year of 2021. These algorithms are efficient than the human performance in terms of precision as well as accuracy. Also, this NLT mission brings an evolution into the internet for disseminating knowledge in many Indian languages. The initiate on internet is particularly because of the growth of internet users about 34.4% in the year of 2020 [9]. In this paper, the concept of translation in India is detailed from the history to the advance benefits of this translators. Further the methods involved for translation is also discussed along with their benefits.

3. Translation in India

3.1 Methods for Translation

Translation typically handles any type of content, that is to say, books, novels, articles, and others, can be taken in account. Basically, it is enabled to literal translation, informative translation, oral translation, written translation, human-assisted translation and computer aided translation [10]. The three main methods that are followed for translation are Human Translation (HT), Computer-Assisted Translation (CAT) and Machine Translation (MT) [11], [15].

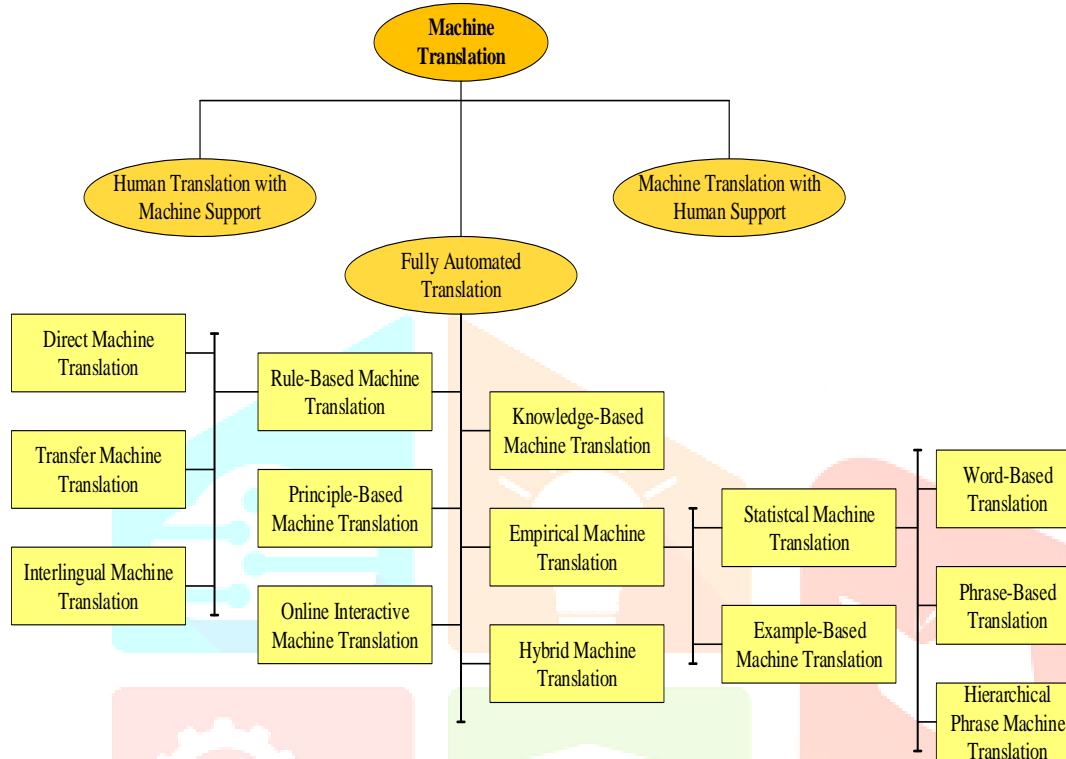


Fig. 1. MT Classification [14]

For the purpose of translation, the CAT uses electronic dictionary, semantic information, linguistic elements, punctuations and others. On the other hand, the MT deals to utilize advance Natural Language Processing (NLP) and AI methodologies [12], [13]. In common, the categories of classification in MT are depicted in fig 1. The methods that are presented in MT are fuzzy logic, Recurrent Neural Network (RNN), Naïve Bayes, Hidden Markov Model (HMM), Convolutional Neural Network (CNN), etc. The common steps in translation are pre-processing, phonetic mapping, dictionary reference, Morphological analysis, and post processing. Hereby the efficient on using each method of translation is illustrated in the following.

a. Efficiency of Human Translation

- The concept will be clearly understood before translated and able to bring accuracy in the translation. Each and every minute thing will not be missed while translating, since the translator is able to get the liveliness of the subject.
- This method requires the knowledge of SL and TL, as well as it takes time according to the length of the text content.

b. Efficiency of Computer-assisted Translation

- It has the ability to remember the important keywords and phrases in the language that are used in particular field such as medical, industry, religion, etc. This type of method is able to manage massive file size.
- The tools designed in CAT is efficient, however it is not able to process well for cultural and literature. In this basis, only the pre-trained vocabulary and grammatical format can be used in translation.

- According to the SL and TL, the programming has to be performed. Beyond this, the technical keywords are massive, hence it has to be correctly programmed according to the field of the text involved in translation.

c. Efficiency of Machine Translation

- This method is able to process at massive speed, even with the increase in length of the text. The algorithm used in this translation method has experience and it is efficient to match the root work and finally generates a good target sentence.
- The steps followed in this translation are Part-of-Speech (PoS) tagging, Tokenization, WordNet, and Word Sense Disambiguation. In addition to these steps, other required language processing process will be performed.
- It requires high resource system i.e., RAM, processor, etc., for deploying the algorithm and it needs to be trained based on multiple keywords for the achievement of accurate results.

The translation is supported in three main categories of methods and each method have specific advantages. In contrast the efficiency of the method could be tested only when it is applied for translation of different Indian languages. Since a translation method that works for only one translation language is not sufficient in India, due to the use of multi-language communication.

3.2 Challenges in the Task of Translation

There exists challenge while performing translation using programs or man-power. Translation is essential from the past to the present and towards the future. In fact, the religious, cultural, literary, research paper, medical instruction and so on, keeps on moving ahead day by day in every corner of the state and hence the translation is important to spread things. The common challenges in this translation are illustrated below.

- The structure of sentence formation differs according to each language which is critical to define the flow of text content.
- The construction of a sentence will not follow a particular standard as subject, verb, noun, and adjective. Hence it is quite hard to predict the format of the sentences.
- In a sentence, a technical keyword has more than one meaning, so the replacement of apt meaning in the sentence is critical.
- The technical knowledge of the subject must be well-known and so the translation could be successful.
- The content has to be free from grammatical issues that permits to create the reader's comfort and minimizes unnecessary questions.
- The symbols, figures in the SL have to be correctly identified and replaced with the proper matches from TL. A technical experience can handle this challenge easily that makes easy to solve this issue.
- The placement of formal and informal, as well as active and passive voice requires more focus, if the conversation is not conveyed in right way, then the concept is not correct. So, give the proper flow of the translation text.

4. Conclusion

In this paper, the concept of translation in India is studied from the history till the present methods that are in use for translation. At this point, the importance of translation has never exhausted and still it catches the interest in research field. Each method in the task of translation is operated on certain period and also it exists based on the languages it is preferred. In particular, India has states speaking different languages and the religious history of each state is interesting. Due to this reason, the translation is important in India. This paper discusses a review on the methods used for translation and the efficiency of each method.

In future, we have planned to test three methods of translation and predict which method is the best among the three and validate the accuracy of translation.

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