A Hybrid Approach to English to Malayalam Machine Translation

Abstract

Machine translation is the process of translating text from one natural language to other using computers. The process requires extreme intelligence and experience like a human being that a machine usually lacks. Availability of machine translators for translation from English to Dravidian language, Malayalam is on the low. A few corpus-based and non-corpus based approaches have been tried in performing English to Malayalam translation. In this work a hybrid approach to perform English to Malayalam translation is proposed. This hybrid approach extends the baseline statistical machine translator with a translation memory. A statistical machine translator performs translation by applying machine learning techniques on the corpus. The translation memory caches the recently performed translations in memory and eliminates the need for performing redundant translations. The system is implemented and evaluated using BLEU score and precision measure and the hybrid approach is found to improve the performance of the translator.

References

- Dan Jurafsky, James H Martin, Andrew Kehler, Keith Vander Linden, and Nigel Ward.


**Index Terms**

Computer Science  
Artificial Intelligence

**Keywords**

Hybrid Machine Translation  
Statistical Machine Translation  
Translation Memory  
Corpus  
English-Malayalam Translation