Comparative Study of Three Translation Services Using APIs

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Abstract:- In This paper we Analyze the relationship between the three web services google, aws, azure . In this we take the Data and we translate them using these webservices.

The aim of this study to know which webservices translate the data more accurate and error less.

The ANOVA test was perform to find the relationship between the webservices .If the value of PR is greater than F then there is a considerable difference between two values are not similar. And if PR is less than F than there is no much difference between two values.

In analysis of this experiment we found that PR>F so we can say that these three webservices(GOOGLE,AWS,AZURE) on translation is almost same.

Keywords:- PR, F (variation between sample means / variation within the samples).

- DATA

	AWS	AZURE	GOOGLE
ENGLISH TO ENGLISH (NO CHANGES)		4	
TRANSLATION WRONG	2	5	4
NO CHANGES IN NUMBER ONLY ENGLISH	4	3	3
NO TRNSLATION BUT CONVERTED IN HINDI	16	15	14
TRANSLATION NOT COMPLETE	1	2	2
CAN'T IDDENTIFY WHETHER THE SENTENCE IS QUESTION OR NOT	2	3	1
GENDER IDDENTIFICATION MISTAKE	2	2	2
TENSES MISTAKE	4	6	5
SAME SENTENCE BUT DIFFEREN T DIFFERENT TRANSLATION	11	14	15
CAN'T DISTINGUISH BETWEEN SINGULAR AND PLURAL	2	2	1

Use AWS as M1, AZURE as M2, GOOGLE as M3 .
- Create a CSV to store the data.
- Here we use different package such as pandas, matplotlib, statsmodels.
- Define a variable in which we read our input file.
- First apply OLS function on any two columns such as on M1 and M2.
- Then apply ANOVA test on the result of OLS.
- Now again use OLS on M1 and M3, and then apply ANOVA test again.
- Again apply it for M2 and M3, and similarly use ANOVA again.

I. INTRODUCTION

The main aim of this research paper is to present a detailed description of the Comparative study of three translation services using APIs . In this we explain the purpose and features of the webservices, , how these APIs translate ,what they translate individual and their Ambiguity &similarity in the translation. This document is intended for both the stakeholders and the developers of the system and will be proposed to the Meerut Institute of Engineering and Technology for its approval.

II. METHODOLOGY

This part will introduce how we approach our experiment. We will start by collecting the data from various trustable sources and converted them into .csv file which is acceptable by our coding language. We first use OLS regression to compare our data, Then we applied ANOVA test on the selected data to find a relationship between these three web services.

III. RELATION ESTIMATION

- We are finding the relationship between Google, Azure & AWS using regression and Anova test in python.
- In ANOVA test, If value of PR is greater than F then there is a considereble difference between two values- Two values are not similar.
- If value of PR is less than F then there is no much difference between two values-Two values are similar.

IV. CONCLUSION

This paper states a system which is used for checking the accuracy of the three different webservices in translation on different parameters. The suggested approach to do so is make a data file which contains collection of sentence(data) andusing advance python package such as pandas, stats models and regression techniques and OLS (Ordinary Least Squares) method, these method are applied on three sequential components that is AWS, GOOGLE and AZURE and generates a relationship between these.

In addition, this is also helpful to know that all these webservices are almost same. And we can use any of them irrespective of the errors and Ambiguity.

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