Overcoming Language Barrier Problem and Usage of Generated Data in Various Sectors using Predictive and Prescriptive Analysis Tools

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Abstract - **Organizations in today's world are adopting new technique called as Predictive and Prescriptive Analytics to improve the overall outcome and performance of the organization. In descriptive analytics, past and the current situation of the organization is addressed and based on that organization's future is predicted and future strategies are planned and suggested using predictive and prescriptive analysis automated tools and algorithms. When people outside India travel to India as well as people within India travel from state to state, language of communication changes and they face problem in reading station boards, name plates and also face communication problem. To overcome this language barrier, our government also has taken some steps but still 'Make in India' is facing language barrier problem. Taking this problem into consideration, we have developed an Android app which would require to click the photo of any text which may or may not have image or images and would translate it in any other preferred language and this application would also pronounce the translated text into the preferred language. App will store information about the user and various parameters. Using Pandas which is Python library and Matplotlib,**
predictive analysis of data is done and then use some tools to apply prescriptive analytics. By doing this, we will get information which can be provided to various government and private sectors. This application would not only help people to some extent in terms of communication but also to increase industry performance.
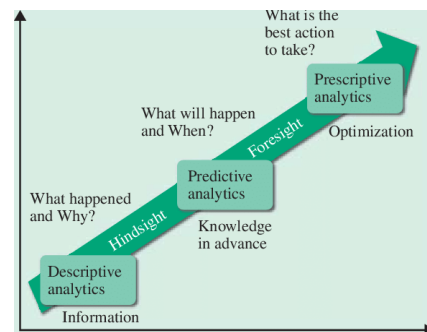
Keywords: Language barrier, Predictive analysis, Prescriptive analysis, Future insight

INTRODUCTION

Business sector is now adapting the automated analysis techniques where we can transfer the past and current data generated in business in meaningful form which give us future insights which is very useful to grow business in many sectors. By considering all these points, app is developed for overcoming language barrier problem and applying analysis technique on generated data helps in various business sectors to have future insights. Using the app we can click photo of any text which may or may not have image or images and   would translate it in any other preferred language and this application would also pronounce the translated text into the preferred language. Using Python libraries, the data generated by app can be analysed for various purposes.

Predictive and prescriptive analytics is branch of data science.
Data analysis flow is :

Descriptive-> Predictive->Prescriptive
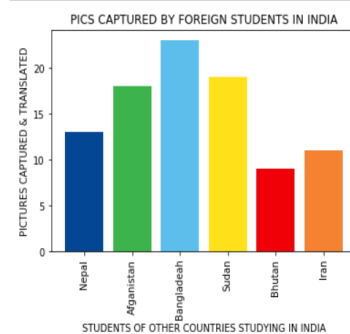

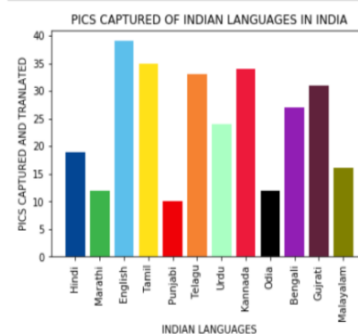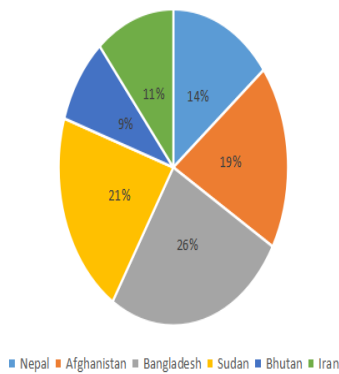
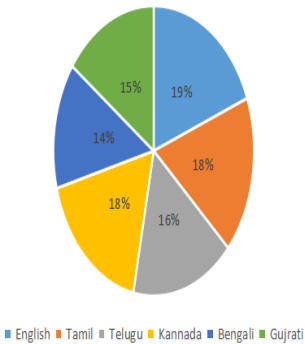**Studying the data sets for analysis:**

Figure a.

Figure b.

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Pics Captured by Foreign Students In India

Nepal ■ Afghanistan ■ Bangladesh ■ Sudan ■ Bhutan ■ Iran

Pics Captured Of Indian Languages In India

English ■ Tamil ■ Telugu ■ Kannada ■ Bengali ■ Gujrati

Pics Captured Of Indian Languages In India

English ■ Tamil ■ Telugu ■ Kannada
Bengali ■ Gujrati ■ Hindi ■ Marathi
Punjabi ■ Urdu ■ Odia ■ Mallyalam

Area	Predictive Analysis	Prescriptive Analysis
Education	Study the % of students from various places seeking admission in particular institute	Make aware more students to seek admission in the institute
Food	Identify what kind of food app user would like	Suggest restaurants serving the required food in the area
Tourism	Country/ State from maximum number of people visiting the particular place	Find and implement strategies to grow tourism business

To conclude with prescriptive analysis from the graph, we can conclude that 21% of students from Nepal and 19% of English language is highest, hence prescriptive analysis should have future insight related to these two entities by eliminating bad or unnecessary data..

CONCLUSION

The paper reports how the data generated as a result of usage of language barrier android app be analysed and is used to produce a good assessment of what may happen with unknown events. Prescriptive analytics suggests future plans for betterment of national business ranking as mentioned in the paper. Sometimes the data is also used in fraud detection. It provides efficient way to extract valuable information from the app.

FUTURE SCOPE

Automated machine learning algorithms should be designed to provide more accurate future insight. Continuous study of generated data by automated algorithm suggest more accurate and precise data which can be provided to more areas of business industry. In turn ,system will learn, evolve and improve upon their own learning.

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Consider the two data sets generated from descriptive analysis and prescriptive analysis using Pandas, Numpy and Matplotlib libraries. *Figure a* depicts students from different countries taking education in India and facing English language communication. *Figure b* depicts number of pictures translated in Indian languages .The analysis is applied on the sample data generated.

Consider predictive analytics applications areas as education , food and tourism industry.

Predictive and Prescriptive analysis can be used as :