Studying Abroad: The factors involved

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Objectives and Datasets: Studying abroad, who doesn't think about that these days? With increased globalization and awareness, the number of students going abroad has increased drastically. This has given rise to increase in economies of various countries which have very good education systems. Therefore an analysis in this domain has become necessary. In this project, I would like to analyze data-sets provided by United Nations Educational, Scientific and Cultural Organisation (UNESCO) for number of students studying abroad [1], GDP for the countries [2], Government expenditure on education as a percentage of GDP [3], literacy rate among adults aged >= 15 years (%) [4]. These factors are very important and therefore I would like to assess as to which factor matters the most after a detailed analysis.

Motivation: A detailed study of parameters such as GDP, the amount of money a country invests for education and literacy rates in the particular country can give us inestimable deductions as to why the number of students going abroad are high or low for a particular country. There are very few studies which have taken place in this domain and I feel I can contribute a lot through this project.

Design Procedure: I intend to do Map Reduce analysis in Cloudera Hadoop environment for analyzing these various datasets and would like to use a Java based back-end in Eclipse for achieving this. Apache Hive will be suitable for processing the data and finding out useful information. I would also like to create some useful visualizations which might help decipher invaluable deductions from the analysis a lot quicker. After all this analysis, I intend to use Machine Learning for static analysis to verify whether these results are accurate enough. This analysis will therefore show which countries have highest number of students studying abroad. I have an extensive approach in mind,and therefore I am not limiting this analysis to a few countries and would like to analyze as many countries possible

References

[1] UNESCO data for students studying abroad

[2] UNESCO data for per capita GDP

[3] UNESCO data for Government expenditure on education as % of GDP,

[4] UNESCO data for Literacy rate among adults aged >= 15 years (%)