Management Progress Report 1: Investigating the impact of terrorism on worldwide economies

Programme: HDSDA1

Author: Philip Lawson

Student Number: 14116677

1. Introduction:

This document outlines the progress that has been made in developing a solution as outlined in the initial requirements specification document. (Lawson, 2015a)**.** For accessibility I will restate the primary aims of the project although it is advisable to consult the requirements specification and original proposal for further details. (Lawson, 2014). The project aims to present key trends and patterns in the dataset using interactive graphics. The project will also attempt to predict the effect of terrorist attack frequency on the economies of attacked countries as well as investigating any temporal trends that exist within the dataset.

1. Summary of Progress:

Progress has occurred in the form of training and familiarisation with the resources that are to be used in this project. These include special resources such as Microsoft Project and critical resources such as R’s shiny module. This training serves to increase the effectiveness of the human resource needed for this project.

1. Progress achieved:

* Learned to use GitHub GUI as a version control system (VCS): made use of an article on GitHub.com to be able to understand the basic features of GitHub GUI. (GitHub,2014)
* Received work related training in Microsoft Project to facilitate the production of more useful Gantt charts.
* R Shiny proficiency was increased through the completion of their tutorial (RStudio,2014)
* Consulted with Mr. Oisin Creaner for feedback. Our discussions concluded that a greater emphasis should be placed on inferential statistics and that the interactive graphs would need to be of a high standard. Discussed that the project will aim to investigate whether time series or neural network prediction is more appropriate and the issue of too broad a scope was highlighted.
* Consulted with Mr. Frank Kendlin for feedback. The outcome of which was to focus less on the development of interactive graphs and to keep them at a high level initially. The idea of neural networks was discussed and a shift of scope towards discovering new information in the idea occurred.
* Imported data into R – removed unnecessary columns and performed basic cleaning.
* Investigated neural network models as part of literature review for the Data and Web mining module for the HDSDA course. (Lawson,2015b)
* Increased proficiency of data retrieval for the literature review component of this project. This was facilitated through the use of Google Scholar and Summon.

1. Goals to be completed for next Report:

* Further reduction in the total number of attributes
* Identification of all data quality issues in the remaining attributes and development of solutions to these problems
* Produce interactive descriptive statistics and graphs locally for testing and upload them if testing is successful
* Provided an updated version of the requirements specification
* Complete literature review incorporating a minimum of 15 documents
* Assess the validity of both time series prediction and economic prediction for this project
* Re-assess the scope of the project depending on what is possible after initial analysis

1. References:

GitHub (2014) ‘Hello world’ [Online]. *GitHub.* Available from: <https://guides.github.com/activities/hello-world/> [Accessed 30th March 2015]

Lawson, P. (2014) ‘Global Terrorism Database: Analysis and Predictions’. Unpublished HDip report, Dublin: National College of Ireland.

Lawson, P. (2015a) ‘Requirements Specification: Investigating the Impact of terrorism on worldwide economies’. Unpublished HDip report, Dublin: National College of Ireland.

Lawson, P. (2015b) ‘CA1: Data and Web Mining Literature Review’. Unpublished HDip report, Dublin: National College of Ireland.

RStudio (2014) ‘Welcome to Shiny’ [Online]. *Shiny by RStudio.* Available from: <http://shiny.rstudio.com/tutorial/lesson1/> [Accessed 30th March 2015]