UNIVERSITI TEKNOLOGI MARA

MALAYSIA DISEASES VISUALIZER USING PROPORTIONAL SYMBOL MAP

QAMARYNA BINTI KAMARUDIN

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TABLE OF CONTENTS

CONTENT

SUPERVISOR APPROVAL
STUDENT DECLARATION
ACKNOWLEDGEMENT
TABLE OF CONTENTS
LIST OF FIGURES
LIST OF TABLES
LIST OF ABBREVIATIONS

CHAPTER ONE: INTRODUCTION
1.1 Background of Study
1.2 Problem Statement
1.3 Objective
1.4 Scope
1.5 Significance of Study
1.6 Summary

CHAPTER TWO: LITERATURE REVIEW
2.1 Data Visualization
2.2 Data Visualization Techniques
2.2.1. Hierarchical Data Visualization
2.2.2. Network Data Visualization
2.2.3. Map Data Visualization
2.2.4. Multidimensional Data Visualization
2.2.5. Temporal Data Visualization

Executive Summary / Abstract

Title : Malaysia Disease Visualizer Using Proportional Symbol Map

Data visualization is the representation of data as a means to educate and inform a targeted group of people of accurate data retrieved from a reliable source. There comes a need for data visualization when there is large amount of data that requires to be visually presented in a way that assists the users to effortlessly comprehend the data. Currently, the health care data in Malaysia is stored in Malaysia Health Data Warehouse (MyHDW) in the form of lengthy and tedious reports, which is time consuming and not appealing to the public. Hence, there is a need to properly visualize the data in order to make the representation of health care data more attractive to the users. This project will develop a data visualization webpage of three diseases in Malaysia from the year 2014 to 2016 using D3.js. The visualization will allow easy tracking of diseases in Malaysia as well as identification of the hotspots of the diseases. This visualization can benefit the people of Malaysia as it can act as a basis for the decision-making of the government to take the necessary actions on widespread diseases and focus on areas that need more attention.

CHAPTER 1

INTRODUCTION

This chapter consists of the background and the motive of this project. It covers the overview of data visualization, problem statement, objectives, scope and significance of the study.

1.1 Background of Study

The big data trend has been growing in the recent years as vast amount of data is being generated. The main reasons to the evolution of big data are the advancement of computers, the internet and the technology that are efficient at collecting data. The idea of big data is that if you are more educated on a situation or a problem, the better you are at coming up with solutions and predictions to the issue at hand as it provides a wider perspective on the data where we will be able to find relationships between the data that were previously not as clear and obvious (Marr, n.d.).

The immense amount of data is usually categorized into 5 V's, which are Velocity, Volume, Value, Variety and Veracity. Velocity is related to the rate of data being produced, accumulated and examined. Volume, however, is related to the large amount of data being created every day. Value has to do with value of the data being collected. Variety, on the other hand, is described as the different categories of data available. Lastly, Veracity refers to the quality and accuracy of the data (Cano, 2014).

In this day and age, the use of data visualization is not uncommon. It is becoming a necessity in many different platforms as it conveniently portrays an extensive view of the data. Data is often being presented in a way that complicates the user; however, the use of data visualization simplifies the data in a creative way that successfully conveys the information (Tandon, n.d.).