Universiti Teknologi MARA

Visualization of Public Sentiment from Crime News in Social Media

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Thesis submitted in fulfilment of the requirements for Bachelor of Computer Science (Hons.)
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SUPERVISOR APPROVAL

VISUALIZATION OF PUBLIC SENTIMENT FROM CRIME NEWS COMMENTS IN SOCIAL MEDIA

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This thesis was prepared under the supervision of the project supervisor, Mohammad Bakri bin Che Haron. It was submitted to the Faculty of Computer and Mathematical Sciences and was accepted in partial fulfilment of the requirements for the degree of Bachelor of Computer Science (Hons.).

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JULY 6, 2017
STUDENT DECLARATION

I certify that this thesis and the project to which it refers is the product of my own work and that any idea or quotation from the work of other people, published or otherwise are fully acknowledged in accordance with the standard referring practices of the discipline.

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ABSTRACT

Social media has become a sole of our communications and platform for sharing information. Among all the social media, Facebook has become an important platform for news sharing as well as engaging in discussions about a certain topic, issues or events. Through discussions, public expresses their opinions via text and symbols. Sentiments analysis is a research area that studies this data to get public’s opinion, their feelings, and emotions. However, analysing the public emotions can be cumbersome. Further approaches are needed as there are numerous ways for public to express their emotions such as using an emoticon or through text. Hence, many research have been done in analysing sentiments using languages such as English, Chinese, and Arabic. However, there are a limited number of research that analyses and visualize sentiments into an understandable format using Malay language. The aim of this project is to develop a prototype that visualizes sentiments from Facebook comments based on crimes news in Malay. For this purpose, filtering and pre-processing including a hybrid approach is implemented to categorize the sentiments for better accuracy while a word cloud is used for visualizing the sentiments. The sentiment analysis is conducted using hybrid approach, a combination of machine learning approach and lexicon based approach with the addition of dictionary based approach and Naïve Bayes as trained classifier. The system managed to successfully classify and visualize the sentiments using word cloud. Future research towards the system can be done by expanding the emotion database using formally language.

Keywords: Facebook, word cloud, visualization, sentiment classification, emotion.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>CONTENT</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUPERVISOR APPROVAL</td>
<td>ii</td>
</tr>
<tr>
<td>STUDENT DECLARATION</td>
<td>iii</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENT</td>
<td>iv</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td>v</td>
</tr>
<tr>
<td>TABLE OF CONTENTS</td>
<td>vi</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>ix</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>xi</td>
</tr>
<tr>
<td>LIST OF ABBREVIATIONS</td>
<td>xii</td>
</tr>
</tbody>
</table>

## CHAPTER ONE: INTRODUCTION

1.1 Background Study 1  
1.2 Problem Statement 3  
1.3 Objectives 3  
1.4 Scope 3  
1.5 Significances 4  

## CHAPTER TWO: LITERATURE REVIEW

2.1 Social Media 5  
2.2 Facebook as a platform for news sharing 6  
2.3 Data Acquisition 7  
  2.3.1 Text pre-processing 7  
2.4 Sentiment Analysis 8  
  2.4.1 Summary 10  
2.5 Sentiment Classification Technique 11