UNIVERSITI TEKNOLOGI MARA

The Stigma of Autism in Malaysia: A Sentiment Analysis Review Based on Twitter Data

Nur Adlin Safiah Binti Rosli

BACHELOR OF COMPUTER SCIENCE (HONS) FACULTY OF COMPUTER AND MATHEMATICAL SCIENCES

FEBRUARY 2022

DECLARATION

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

.

NUR ADLIN SAFIAH BINTI ROSLI 2020974451

FEBRUARY 10, 2021

ABSTRACT

Autism, often known as autism spectrum disorder (ASD) is a complex illness that includes communication and behavioural problems. Autism affects how they communicate, engage, behave and learn in ways that are different from other people. They may also have a distinct appearance from others. As a result, there is a stigma associated with this condition. The goal of this research is to analyse the societal stigma around autism by gathering and classifying tweets regarding autism in Malaysia from Twitter. Twitter is picked as the medium for data collection due to its popularity among public now. With polarity identification, tweets regarding autism can be categorised as positive, negative, or neutral. In this project, rule-based approach will be used. This method is chosen because of its ability to analyse text without the need for training or machine learning models. It also does not need a large amount of training data. The findings may be useful to the Ministry of Health Malaysia or the NGOs in understanding how the public views autism.

TABLE OF CONTENTS

CONTENTS PAGE **SUPERVISOR'S APPROVAL** ii DECLARATION iii ACKNOWLEDGEMENT iv ABSTRACT v **TABLE OF CONTENTS** vi LIST OF FIGURES ix LIST OF TABLES Х

CHAPTER ONE: INTRODUCTION

1.1	Introduction	1
1.2	Background of Study	2
1.3	Problem Statement	2
1.4	Project Objective	4
1.5	Project Scope	4
1.6	Significance of Study	4
1.7	Conclusion	5

CHAPTER TWO: LITERATURE REVIEW

2.1	Introduction	6
2.2	Overview of Autism	7
2.3	Overview of Sentiment Analysis	9
	2.3.1 Lexicon-Based Approach	9

	2.3.2 Machine Learning Approach	9
	2.3.3 Hybrid Approach	10
2.4	Evaluation for Sentiment Analysis	10
	2.4.1 Lexicon-Based Approach Evaluation	10
	2.4.2 Machine Learning Approach Evaluation	11
	2.4.3 Hybrid Approach Evaluation	12
2.5	Existing Applications Related to Sentiment Analysis	13
	2.5.1 CryptoMood – Crypto Sentiment Analysis Tools	13
	2.5.2 Sentiment Analysis – Know the Opinion	14
	2.5.3 Happy Not Happy	16
2.6	Related Research	17
2.7	Justification of the Chosen Method, Technique and Features	22
2.8	Summary	22

CHAPTER THREE: METHODOLOGY

3.1	Introduction	23
3.2	Operational Framework	23
	3.2.1 Phase 1: Planning	23
	3.2.2 Phase 2: Literature Review	23
	3.2.3 Phase 3: Implementation	24
	3.2.4 Phase 4: Result Analysis & Discussion	24
	3.2.5 Phase 5: Documentation	25
3.3	Development Methodology	25
3.4	System Architecture	27
3.5	Data Collection Strategy	28
3.6	Software & Hardware Requirements	28
	3.6.1 Software Requirements	29
	3.6.2 Hardware Requirements	29
3.7	Conclusion	29