Contents

PREFACE ix

ABOUT THE AUTHORS xiii

CHAPTER 1 INTRODUCTION 1
Online Platforms' Existential Crisis 1
Economic Impact of Misinformation 5
Falsehood Travels Fast 6
The Algorithmic Age 6
Computationalism 9
Notes 10

CHAPTER 2 BACKGROUND 11
A Brief History of Falsehood Propagation 11
The Invention of the Printing Press and (Mis)information Propagation 12
From Mass Media to Fragmented Media 12
Social Media's Turn from Democracy to Authoritarianism 13
Propaganda 14
Crisis Discipline 16
Note 16

CHAPTER 3 A PHILOSOPHICAL APPROACH 17
Facts, Belief, Opinion and Truth 17
Leibniz and Frege on "Truth" and "Fact" 17
Checking for "Truth" and "Fact" Online through Analysis 18
Decision and Action 20
William James' Live/Dead Hypotheses 21

W.V. Quine on Two Dogmas Obstructing Pragmatism 21
Bertrand Russell's Scepticism 22
Frank Ramsey's Principle 23
The Connection between Wittgenstein and Ramsey 24
Philosophy of Information 25
Our Own Model 26
Note 26

CHAPTER 4 INTERVENTIONS 27
Content Moderation 27
Behavioural Nudges 28
Information Quality Ranking versus Algorithmic Ranking 30
How Facebook's News Feed Works (Facebook 2021) 30
Twitter's Switch to Algorithmic Ranking of Content 30
Vanity Metrics and Quality Metrics 31
Bridging-Based Ranking of Content 31
Algorithmic Choice 31
Receptive Reading and Participatory Restraint 31
Media/Information/News/Digital Literacy 32
Natural Language Processing, AI and Misinformation Prevention 33
GPT-3 Language Model 34

CHAPTER 5 ANALYSING THE PROBLEM 37
Origins of Modern Logic and Language Processing Systems 37
The Chomsky-Norvig Debate 38
AI Limitations and Prospects 40
Father of the Information Age 41
Information Quality Theory 43
Free Speech and the Harm Principle 46
The Harm Principle 2.0 46
Free Speech, Free Reach, Free Expression and Free Impression 49
The Misinformation Challenge 49
A Systems Approach to Misinformation Analysis 51
Misinformation and Malinformation 52
Off-information and Non-information 56
Wittgenstein's Approach 57
The Key Theses in *Tractatus Logico-Philosophicus* 58
Notes 60

CHAPTER 6 THE GLOBAL ONLINE INFORMATION QUALITY CHECK MODEL 63
How Does This Analytical Model Work? 66
We Foresee Three Ways of Using Our Proposed Model 68

CHAPTER 7 CONCLUSION 69

APPENDIX: DETAILED SURVEY QUESTIONS AND RESULTS 71

GLOSSARY OF TERMS 75

BIBLIOGRAPHY 79

FURTHER READING 89

INDEX 93