Literature Review Outline

Implementing Cyber Security tools and/or techniques in detecting medical misinformation on a social media platform of Twitter

Ying Chan

Hong Kong

University of Essex

Research Methods and Professional Practice November 2022

Unit 4

# Abstract

Utilization of Cyber Security tools to detect medical misinformation on a social media platform of Twitter.

# Review of Literature

Analysis the medical misinformation prevalence, relationship, and effects. Review the techniques, preventive actions and compare to other social media. Found out the improvement by implementing Cyber Security tools.

# Prevalence of medical misinformation on a social media platform

The systematic research reveals that platforms like Twitter, Facebook, YouTube, and Instagram are essential for spreading the quick and widespread diffusion of information. The consequences of spreading misinformation on social media like an increase in incorrectly interpreting scientific knowledge, polarization of opinions, the escalation of fear and terror, or a reduction in access to healthcare.

During pandemics, humanitarian crises, and medical emergencies, social media has been spreading subpar health-related information at an increasing rate. Such dissemination of dubious medical information reinforces vaccine reluctance and encourages the use of alternative treatments.

# The types of medical misinformation that propagation

## Vaccines

## Drugs or smoking

## Noncommunicable diseases

## Pandemics

## Eating disorders

## Medical treatments

# The relationship between the spreaders and victim

## Age

## cultures

## digital literacy

# Effects of medical misinformation

## Health and Life Matters

## Social Awareness

## Number of Active Users

# Techniques of detecting medical misinformation

## Machine learning

## Health Misinformation Features

# Ways to ban or prevent such misinformation

## Blocked accounts

## Removed post

## Rating

## Countries

# Comparison of social media

## Twitter

## Facebook

## YouTube

## Instagram

# Method

## Quantitative method

## Qualitative method

# Procedure

# References

Health Misinformation Detection in the Social Web: An Overview and a Data Science Approach 2022

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8872515/>

Identifying Credible Sources of Health Information in Social Media: Principles and Attributes 2021

<https://nam.edu/identifying-credible-sources-of-health-information-in-social-media-principles-and-attributes/>

Confronting Health Misinformation

<https://www.hhs.gov/sites/default/files/surgeon-general-misinformation-advisory.pdf>

Prevalence of Health Misinformation on Social Media: Systematic Review <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7857950/>

Spreaders vs victims: The nuanced relationship between age and misinformation via FoMO and digital literacy in different cultures <https://journals.sagepub.com/doi/abs/10.1177/14614448221130476>

Prediction of Fake Tweets Using Machine Learning Algorithms <https://www.researchgate.net/publication/356753758_Prediction_of_Fake_Tweets_Using_Machine_Learning_Algorithms>

Using Tweets to Understand How COVID-19–Related Health Beliefs Are Affected in the Age of Social Media: Twitter Data Analysis Study

<https://www.jmir.org/2021/2/e26302/>

TAG Bulletin: Q3 2022 Youtube

<https://blog.google/threat-analysis-group/tag-bulletin-q3-2022/>

THE SOCIAL PLATFORMS WITH THE BIGGEST INCREASE IN REMOVED CONTENT | 2019-2020

<https://www.rebootonline.com/digital-pr/assets/social-media-platforms-biggest-increase-removed-content/>

The early bird catches the term: combining twitter and news data for event detection and situational awareness

<https://jbiomedsem.biomedcentral.com/articles/10.1186/s13326-016-0103-z>