$\label{eq:apamilion} \mbox{APAMI 2020 | General Oral Presentation Session | APAMI 2020 | General Oral Presentation Session \\ \mbox{COVID-19}$

Sun. Nov 22, 2020 2:40 PM - 3:50 PM Room E-1 (Congress center 5F - Conference Room 52)

[AP2-E1-3-01] Social Media Data Analytics for Outbreak Risk Communication: Learning Public Attention on "New Normal" During the Covid-19 Pandemic in Indonesia

*Annisa Ristya Rahmanti^{1,2,3}, Dina Nur Anggraini Ningrum^{1,2}, Lutfan Lazuardi³, Hsuan-Chia Yang^{1,2}, Yu-Chuan Li^{1,2,4} (1. Graduate Institute of Biomedical Informatics, College of Medical Science and Technology, Taipei Medical University, Taiwan, 2. International Center for Health Information Technology, Taipei Medical University, Taiwan, 3. Department of Health Policy Management, Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada, Indonesia, 4. Department of Dermatology, Wan Fang Hospital, Taiwan) Keywords: New Normal, Covid-19, Outbreak Risk Communication, Twitter, Sentiment Analysis

After two months of implementing partial lockdown, the Indonesian government had announced a "new normal" policy to prevent a further economic crash in the country. This policy received a lot of critics, as Indonesia still experiencing a fluctuated number of infected cases. Understanding public perception through effective risk communication can help bridge the gap between government actions in relaying an appropriate message to avoid further disease spread. This study aims to analyze how risk communication using social media platforms like Twitter can be used to measure public attention on Covid-19 related issues "New Normal". We gathered Twitter public data using Drone Emprit Academy (DEA) engine to access tweets related to New Normal from May 21, 2020, to June 18, 2020. We observed a total of 285,014 tweets from 137,558 active users. We found 53% of people had a positive sentiment towards new normal issues while only 40% of people had a negative perception. Moreover, around 77.96% of people expressed emotion of trust, anticipation, and joy. Our study also demonstrates how the trend of public attention on the issue of "New Normal" implementation, was gradually influenced by both the government actions and the spread of the disease. Twitter can facilitate the government in delivering an effective message behind difficult decision-making while addressing public concerns and encouraging them to adopt constructive behavior in response to the Covid-19 pandemic.

Social Media Data Analytics for Outbreak Risk Communication: Learning Public Attention on "New Normal" During the Covid-19 Pandemic in Indonesia

Annisa Ristya Rahmanti^{a, b, c}, Dina Nur Anggraini Ningrum^{a, b}, Lutfan Lazuardi^c, Hsuan-Chia Yang^{a, b} and Yu-Chuan Li^{a, b, d}

Abstract

After two months of implementing partial lockdown, the Indonesian government had announced a "new normal" policy to prevent a further economic crash in the country. This policy received a lot of critics, as Indonesia still experiencing a fluctuated number of infected cases. Understanding public perception through effective risk communication can help bridge the gap between government actions in relaying an appropriate message to avoid further disease spread. This study aims to analyze how risk communication using social media platforms like Twitter can be used to measure public attention on Covid-19 related issues "New Normal". We gathered Twitter public data using Drone Emprit Academy (DEA) engine to access tweets related to New Normal from May 21, 2020, to June 18, 2020. We observed a total of 285,014 tweets from 137,558 active users. We found 53% of people had a positive sentiment towards new normal issues while only 40% of people had a negative perception. Moreover, around 77.96% of people expressed emotion of trust, anticipation, and joy. Our study also demonstrates how the trend of public attention on the issue of "New Normal" implementation, was gradually influenced by both the government actions and the spread of the disease. Twitter can facilitate the government in delivering an effective message behind difficult decision-making while addressing public concerns and encouraging them to adopt constructive behavior in response to the Covid-19 pandemic.

Keywords:

New Normal, Covid-19, Outbreak Risk Communication, Twitter, Sentiment Analysis

Address for correspondence

Yu-Chuan (Jack) Li, MD, Ph.D. College of Medical Science and Technology Taipei Medical University Taiwan E-mail: jaak88@gmail.com, jack@tmu.edu.tw

Note: This paper has been reviewed and recommended by AMAPI2020 Scientific Program Committee to be submitted to the International Journal of Computer Methods and Programs in Biomedicine (CMPB) in its "APAMI2020 Special Edition" as a full-paper scheduled to be published in 2021. Therefore, APAMI2020 Conference Proceeding has published only the abstract of this papers here to avoid any issue of double publication.