Social Media Analysis Tools for Public Health: A Cross-Sectional Survey

Becky K WHITEa, Elisabeth WILHELMb, Atsuyoshi ISHIZUMIa, Tim NGUYENa, Sylvie BRIANDb, Sandra MACHIRIa, Tina D PURNATa,1

a Department of Epidemic and Pandemic Preparedness and Prevention, World Health Organization, Geneva, Switzerland
b Information Futures Lab, School of Public Health, Brown University, USA

Abstract. During the COVID-19 pandemic the field of infodemic management has grown significantly. Social listening is the first step in managing the infodemic but little is known of the experience of public health professionals using social media analysis tools for health. Our survey sought the views of infodemic managers. Participants (n=417) had an average of 4.4 years’ experience in social media analysis for health. Results reveal gaps in technical capabilities of tools, data sources, and languages covered. For future planning for infodemic preparedness and prevention it is vital to understand and deliver for analysis needs of those working in the field.

Keywords. Social media, COVID-19, infodemic

1. Introduction

In recent years, the field of infodemic management has grown significantly, including through global WHO trainings [1] and the establishment of infodemic response teams [2]. Infodemic management involves the implementation of evidence-based strategies to mitigate the impact of an overwhelming amount of information, including misinformation, during an emergency. Social listening and integrated analysis with other data sources for infodemic insights generation provide an evidence base for managing the infodemic [3]. Social media tools are designed for marketing purposes, and little is known of the experiences of those using them for public health.

2. Methods

A survey was developed to better understand the way social media analysis tools had been used for public health since the start of the COVID-19 pandemic, gaps in technical provision, and the needs of infodemic managers. The survey was developed using the Dataform platform and digitally disseminated through WHO infodemic manager network between 2 Dec 2022 – 5 Feb 2023. The project was exempted from

1 Corresponding Author: Tina Purnat, Department of Epidemic and Pandemic Preparedness and Prevention, World Health Organization, Geneva, Switzerland; E-mail: purnattt@who.int.
review by WHO Ethics Review Committee. Participants were eligible if they had used social media analysis tools for a public health purpose since January 2020. Questions were a mix of open and closed responses. No questions were compulsory, and all responses were included in analysis. Descriptive statistics were used to report data.

3. Results

There were 162/417 respondents who answered all survey questions, and 255/417 who partially answered. Respondents came from all 6 WHO regions and a variety of workplaces (including Health authorities, UN agencies, and academic institutes), the average length of experience in analysis of social media for public health was 4.4 years. Respondents were conducting social media analysis for 55 health issues across 56 languages. Only 39.1% (72/184) of respondents agreed that the social media analysis tool they currently used fully met their needs. More than one in five respondents indicated that their current platform did not allow them to complete a task they wanted to be able to do for 19 out of 26 individual tasks. Participants reported wanting access to more languages, better access to data and the ability to integrate with offline sources. Calls for advocacy, coordination, leadership and technical training support were observed in open-text responses. This included advocacy for social media companies to ‘open up access to researchers’ and increase transparency in data access.

4. Discussion and Conclusions

There have been calls for increased coordination and collaboration between private sector and health authorities [4]. Findings from this research reinforce this. Results reveal gaps in the technical capabilities of tools, data sources, and languages covered. The average length of experience of participants was 4.4 years, and those newer to the profession may experience additional challenges. There are key areas for future work and research, including addressing the training, capacity building and leadership needs of those working in this space, and facilitating easier access to better platforms.

This survey is the first we are aware of to describe the needs of those using social media analysis tools for public health purposes since the start of COVID-19 pandemic. For future planning for infodemic preparedness and prevention it is vital to understand these needs and develop tools and strategies informed by those working in the field.

References