Social media as a big public health data source: Review of international bibliography

Dr Evika Karamagioli, Scientific Associate, Ethniko Kapodistriako Panepistimio Athinon, email: karamagioli@gmail.com

Background: As the use of social media creates huge amounts of data, the need for big data analysis so as to synthesize the information and determine actions is generated. Online communication channels such as Facebook , Twitter Instagram etc provide a wealth of passively collected data that may be mined for public health purposes such as health surveillance, health crisis management and last but not least health promotion and education.

Objective: We explore international bibliography on the potential role and perceptive of use for social media as a big data source for public health purposes

Method: Systematic literature review. Data extraction and synthesis was performed with the use of thematic analysis.

Results: Examples of those currently collecting and analyzing big data from generated social content include ie scientists who are working with the Centers for Disease Control and Prevention to track the spread of flu by analyzing what user searches, and the World Health Organization working on disaster management relief. But what exactly do we do with this big social media data? We can track real-time trends and understand them quicker through the platforms and processing services. By processing this big social media data, it is possible to determine specific patterns in conversation topics, users behaviors, overall trends and influencers, sociodemographic characteristics, lifestyle behaviors, and social and cultural constructs.

Conclusion: The key to fostering big data and social media converge is process and analyze the right data that may be mined for purposes of public health, so as to provide strategic insights for planning, execution and measurement of effective and efficient public health interventions. In this effort political, economic and legal obstacles need to be seriously considered.