Cyber-rumor Sharing: The Case of Zika Virus

Emergent Research Forum (ERF)

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Abstract

The Zika Virus brought spread fear not only because of its direct impact on many lives but also due to the various cyber-rumor messages spread across social media (Valecha et al., 2017). It is not surprising that several medical societies, WHO, CDC, etc. have put in their best efforts in educating people about the situation. Due to the significant time taken by those organizations in providing factual information, there has been a widespread problem of rumors associated with health information. When health information is manipulated, it results in frustration, panic and disturbances among the lives of general people. It comes as no surprise that the Atlantic states, “of all the categories of misinformation, health news is the worst.”

The dark side of social media in the form of cyber-rumors has motivated many researchers in behavioral Information Systems to study the core nature of the message (Oh et al., 2018). A key element for successful health-related cyber-rumor management is “to understand what makes citizens prone to engaging in [health-related] cyber-rumor sharing” (Kwon & Rao, 2017, p. 307). Prior literature in the rumor context has investigated polarity of a rumor in a news channel (Oh et al., 2013). It has found that most of the rumors that spread in case of a disaster scenario possess negative sentiment. In this paper, we focus on another characteristic of the cyber-rumor message – distance from point of interest. The farther the distance, the greater is the uncertainty of information in the healthcare context.

In this paper, we argue that the spread of a rumor is closely associated with the distance from point of interest. The farther the distance, the greater is the uncertainty of information in the healthcare context. Following this, we explore whether citizens’ cyber-rumor sharing is influenced by distance. We investigate how the concept of distance affects diffusion characteristics of social media messages. Specifically, we incorporate social, temporal and spatial distances in the context of health messages to evaluate its diffusion. We conceptualize these distances in a generalizable and operational way, and address the following research question associated with cyber-rumor sharing in the context of Zika virus: What proximity characteristics (social, temporal and spatial) of a message make it spread?

We focus on citizens’ cyber-rumor sharing tendency that arises within the larger context of a Zika virus health crisis on Twitter social media platform. The focus of this emergent research paper is to conceptualize the social, temporal and spatial distances, and build a regression model that investigates the effect of these distances on cyber-rumor sharing. Such a model will allow us to quickly identify the emergence of viral rumor messages and monitor the ongoing development of these messages in a timely manner. Such a model will allow more efficient utilization of communication channels which help healthcare officials to reduce panic situations and promote reliable information sharing. Preliminary results confirm our claim that as temporal and spatial distance increases, so does the cyber rumor sharing. Contrary to our claim, we find that as social distance increases, cyber rumor sharing decreases.

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Guides, instructions, length, conference publications.

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