Exploring the communication effects of signals and messages in the COVID-19 health crisis

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Abstract

The ongoing coronavirus disease 2019 (COVID-19) pandemic presents an unprecedented global public health crisis. In this scenario, crisis communication on social media that largely influences people's emotions, attitudes and interaction behaviours towards a large-scale public health crisis plays a critical role in persuading the public's behaviour adjustment and coping with the risk. The effects of crisis communication strategies and signals embedded in social media topics and messages warrant further investigation. This study explored and tested the communication effects of crisis messages and topics from the initial event stage to the normalized control stage of the COVID-19 crisis using texts scraped from a Chinese social media website, namely Weibo. Natural language processing (NLP) techniques, i.e., sentiment and emotion analysis, positivist text coding, and ordinary least squares (OLS) were used in data analysis. This study contributes to the crisis management literature and theories by identifying and testing a number of factors and signals in crisis communication on social media that influence receivers' reactions and behaviours. In doing so, this study provides suggestions for practitioners and policymakers on effective communication of the crisis situation and prevention behaviours to the public.

Keywords: Crisis management, Crisis communication, Signaling Theory, Public emotions, Text analysis