EDITORIAL

How humans behave with emerging technologies during the COVID-19 pandemic?

An unprecedented pandemic, an unprecedented shift, and an unprecedented opportunity are three phrases that we have used to describe the impacts of COVID-19 on human behavior with emerging technologies (Yan, 2020). First, COVID-19 is an unprecedented global pandemic across the world. It has been compared to the Second World War, the Great Depression, and the 1918 Spanish Flu in terms of unprecedented impacts on human behavior. Second, to control the COVID-19 pandemic, various types of human behavior (e.g., shopping, learning, working, meeting, and entertaining) shifted from offline to online, resulting in an accelerated diffusion of emerging digital technologies among ordinary people, while the digital divide further increases between citizens with and without access to the technologies. Third, unprecedented changes in both human behavior shifts and emerging technology diffusion generate an unprecedented opportunity for our research community to study technology-related behavior in the global crisis.

To respond to the unprecedented impacts of the COVID-19 pandemic and to advance the field of human behavior with emerging technologies, the journal has been seeking manuscripts urgently and enthusiastically. In April of 2020, we announced a call for manuscripts for a special issue on COVID-19 and Human Behavior with Emerging Technologies. The responses from our community have been overwhelmingly strong ever since. The process of submitting, reviewing, editing, and producing has been unexpectedly smooth given the ongoing pandemic. After about 8 months of work with our diligent authors and thoughtful reviewers, now we are pleased to present to our readers this special issue.

This special issue aimed to address a basic question: How do humans behave with emerging technologies during the COVID-19 pandemic? It has 20 articles, doubling the regular number of 10 articles per issue, which shows clear evidence of overwhelmingly strong responses from our community. These 20 articles aimed at answering the basic question of the special issue from five different perspectives, knowledge-synthesis, theoretically, methodologically, empirically, and historically, and consequently have made unique scientific contributions to the field. Based on five different perspectives, we categorized these 20 articles into five sections, which are briefly outlined below. Together, the entire special issue provides one of the most comprehensive descriptions of human behavior with emerging technologies during the COVID-19 pandemic across the world. Its most important scientific contribution is that it has established the first scientific baseline knowledge of complex interactions between human beings and emerging technologies during a major crisis.

The first section of the special issue includes three review articles, addressing the basic question of how humans behave with emerging technologies during the COVID-19 pandemic from a knowledge-synthesis perspective. Based on 50-years cognitive science research (e.g., Loftus, 2005), Greenspan and Loftus (2020) have synthesized the extensive literature on effects of misinformation on thoughts, actions, and memories in a concise critical review. They pointed out a shocking fact that the COVID-19 pandemic occurs in parallel with the COVID-19 infodemic, that is, COVID-19 is currently penetrating both the human body through physical contacts and the human mind through digital contacts at the same time. Given this deep insight into COVID-19, we place this article as the first one of the special issue. The second review by Vargo, Zhu, Benwell, and Yan (2020) could be considered the most comprehensive rapid review at this moment. They have identified and synthesized 281 journal articles from multiple disciplines published before June 2020 in a broad theoretical framework and thus sketched out a large picture of the current knowledge of how humans are using digital technologies during the COVID-19 pandemic. Different from the first two reviews, Mbunge, Akinnuwesi, Fashoto, Metfula, and Mashwama (2020) explicitly focused on emerging technologies for tackling COVID-19. Their review is a beautiful technical synthesis of strengths and challenges of 10 emerging technologies, that is, geospatial technology, artificial intelligence, big data, telemedicine, blockchain, 5G technology, smart applications, Internet of Medical Things, robotics, and additive manufacturing in detecting, monitoring, diagnosing, screening, surveillance, mapping, tracking, and creating awareness. A literature review is a critical step for understanding the state of arts and for advancing scientific knowledge. These three reviews provide a broad context for readers to appreciate the special issue.

The second section of the special issue consists of two theoretical articles, addressing the basic question of how humans behave with emerging technologies during the COVID-19 pandemic from a theoretical perspective. Gaspar, Domingos, Brito, Leiras, Filipe, Raposo, and Arriaga (2020) advanced an innovative theoretical model, the Crisis Layers and Thresholds Model. They took the crisis management and crisis communication perspective to consider human responses to COVID-19, stressed the importance of achieving crisis resilience rather than crisis resolution, and suggested a crisis sensing approach mediated with information and communication technologies (especially social media) to monitor social sensors for management of the COVID-19 crisis. As a truly international team, Starcevic, Schimmenti, Billieux, and Berle (2020) took the perspective of public health and...
The year of 2020 is ending and the year of 2021 is approaching. At present, the COVID-19 pandemic is still taking thousands of lives every day across the world. Humans’ battle against it might continue until at least 2024 (Kissler, Tedijanto, Goldstein, Grad, & Lipsitch, 2020). Thus, this special issue marks not only the end of our initial efforts in publishing useful research on COVID-19 and emerging technologies but also the beginning of our continued efforts in disseminating usable knowledge of COVID-19 and emerging technologies. Furthermore, while 2020 is an unprecedented year in the history of human beings, it is also an unprecedented year in the history of scientific research. In early 2020 when the pandemic broke out, we could hardly see relevant publications (e.g., Li, Wang, Xue, Zhao, & Zhu, 2020; Ting, Carin, Dzau, & Wong, 2020). However, within just a few months, hundreds and hundreds of research publications have rapidly been emerging. Many academic publishers (e.g., Wiley) and many journal editors (e.g., three of us) have been overwhelmed by the large number of submissions to handle. More thoughtful, impactful, and innovative studies (e.g., Beaunoyer, Dupéré, & Guittion, 2020; Budd et al., 2020; Ferretti et al., 2020; Ndiaye, Oyewobi, Abu-Mahfouz, Hancke, Kurien, & Djouani, 2020; Sawyer, 2020) have been emerging during the process while we were editing this special issue. We have published three articles (Bao, 2020; Jiang, Chen, Yan, Lerman, & Ferrara, 2020; Skulmowski & Rey, 2020) in Issue 3 of 2020 and an expedited process in responding to the urgent needs before this special issue and will continue publishing COVID-19-related articles after this special issue. We hope that this special issue will inspire more “good work” (Gardner, Csikszentmihalyi, & Damon, 2001). When humans become more effective in adapting to and mitigating against the unprecedented pandemic in the coming months, we will have a better scientific knowledge to answer the question of how humans behave with emerging technologies during global crises and in daily lives.

CONFLICT OF INTEREST
None.

DATA AVAILABILITY STATEMENT
Not required.
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