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SPECIAL ISSUE ON IS/IT Role in Emergency and Pandemic Management

Special Issue Guest Editors: Wen-Lung Shiau, School of Management, Zhejiang University of Technology, China Email: macshiau@zjut.edu.cn

Keng Siau, Department of Business and Information Technology, Missouri University of Science and Technology, US Email: siauk@mst.edu

Yuan Yu, School of Information Management, Wuhan University, China, Email: <u>yuyuan_1978@126.com</u>

Jia Guo (Review Manager), School of Management, Zhejiang University of Technology, China, Email: jiaguo@zjut.edu.cn

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INTRODUCTION:

IS/IT plays a pivotal role in information gathering, information analysis, information sharing, and information management during a crisis. The recent outbreak of the coronavirus (COVID-19) pandemic is bringing the world to its knees. By early April 2020, more than a million COVID-19 cases have been reported worldwide. And over 200 countries are affected including China, U.S., Japan, Italy, Spain, U.K., South Korea, Iran, and many others. To stop the spread of COVID-19, countries around the world have adopted enhanced public health responses such as closing their borders to all but their citizens, suspending intra-city public transport, banning public gatherings, and restricting the movement of residents. Although recent literature indicates that travel restrictions and transmission control measures are effective in delaying the spreading and limiting the size of the COVID-19 epidemic in China (Chinazzi et al. 2020; Tian et al. 2020), there is still an urgent need for greater understanding of existing and alternative public health actions and what information systems (IS)/ information technology (IT) can offer in emergency and pandemic management.

It is widely known that IS/IT plays an important role in healthcare, clinical decision support, emergency response and preparedness, and disaster information management and planning (Ryoo & Choi, 2006; Fichman et al. 2011; Yang et al. 2012; Van De Walle et al. 2014; Chen et al. 2019). For example, data mining techniques can provide various data-driven classification systems for addressing the risk associated with different groups of prostate cancer patients (Churilov et al. 2005). From the post-analysis of major extreme events, it is revealed that information sharing is critical for effective emergency responses (Chen et al. 2013). In large-scale emergencies, IS/IT solutions have been developed to enhance inter-agency flows of information, communication, and coordination (Aedo et al. 2010). However, IS/IT emergency management solutions may not be optimally designed for pandemic cases when the situation is constantly changing and evolving, and decisions need to be made real-time with incomplete and dirty data. Further, trust, privacy, and ethical issues cannot be ignored during a crisis (Siau and Wang, 2020; Wang and Siau, 2019). For example, the ethical issues related to access to medical services and devices when the hospitals are overwhelmed. We need more case studies, computing models, empirical studies, theoretical articles, mixed-method approaches, and advanced methodologies to understand, explain, predict, and manage pandemic crises such as COVID-19 (Gefen et al. 2011; Sarker et al. 2018a,b, Hair et al. 2019; Shiau et al. 2019; Khan et al. 2019; Shiau and Chau, 2016; Chen et al. 2019; Chinazzi et al. 2020; Harrison et al. 2020). Advanced technologies such as data analytics, data science, artificial intelligence, and machine learning can play a critical role in pandemic crisis management as well.

OBJECTIVE OF THE SPECIAL ISSUE:

This call for papers is intended to solicit insights and viewpoints from scholars regarding IS/IT role in emergency and pandemic management. Interested authors are encouraged to submit their articles addressing the theme of this special issue.

RECOMMENDED TOPICS:

Topics to be discussed in this special issue include (but are not limited to) the following:

- Adoption, diffusion, and use of IS/IT in emergency and pandemic management
- Organizational, clinical, and financial implications of IS/IT
- Innovative strategies to limit the risk of spread of disease during a pandemic
- Advanced methodologies for emergency response and preparedness
- Emergency management of resource allocation
- Study on the mechanism of inter-regional cooperation during epidemic outbreaks
- Effect of social forces and cultural differences in emergency management
- Global supply chains in emergency management
- Trust, privacy, and ethical issues in emergency management
- Application of advanced technologies such as data science, data analytics, artificial intelligence, and machine learning in emergency management
- Other emerging issues and state-of-the-art technologies related to IS/IT role in emergency management

SUBMISSION PROCEDURE:

Researchers and practitioners are invited to submit papers for this special theme issue on **IS/IT Role in Emergency and Pandemic Management on or before July 15th, 2020.** All submissions must be original and may not be under review by another publication. INTERESTED AUTHORS SHOULD CONSULT THE JOURNAL'S GUIDELINES FOR MANUSCRIPT SUBMISSIONS at http://www.igi-global.com/publish/contributor-resources/before-you-write/. All submitted papers will be reviewed on a double-blind, peer review basis. Papers must follow APA style for reference citations.

All inquires should be directed to the attention of:

Jia Guo

Guest Editor – Special Issue Review Coordinator E-mails: jiaguo@zjut.edu.cn

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