

Digital Resilience

Guest Editors

Wai Fong Boh, Nanyang Technological University (AWFBoh@ntu.edu.sg)

Panos Constantinides, University of Manchester (panos.constantinides@manchester.ack.uk)

Balaji Padmanabhan, University of South Florida (bp@usf.edu)

Siva Viswanathan, University of Maryland (sviswan1@umd.edu)

Submission Deadline: November 30, 2020

Motivation and Objectives for the Special Issue

The objective of this *MISQ* special issue is to attract and publish forward-looking research on digital resilience to major exogenous shocks—those which disrupt businesses across industries and societal activities across locations, and create significant uncertainty about the duration and course of the disorder as well as how to respond and adjust. We use the term digital resilience to refer to the phenomena of designing, deploying, and using information systems to quickly recover from or adjust to major disruptions from such shocks. We welcome work that contributes to our understanding of digital resilience of individuals, organizations, information systems, communities, governments, or other entities that are affected by a major exogenous shock.

The COVID-19 pandemic has vividly surfaced the need for digital resilience in recovering from and adjusting to massive disruptions from pandemics and other major exogenous shocks.¹ The pandemic has led to an unprecedented loss of human life and livelihoods. It has exposed the lack of real-time surveillance systems and the weaknesses in coordination of public health institutions, and the adverse consequences that result. It has created remarkable experiences, fueled large-scale experimentation, and inspired innovations, while revealing dark sides and weaknesses, across a breadth of contexts. We have seen examples of how information systems can be foundational for crisis-driven agility in a range of spheres from public health to remote work to developing and scaling innovative services. The crisis has also exposed the fragility arising from overlooked risks embedded in the design of organizations, supply chains, decision-making processes, and the underlying information systems. It has also surfaced the disproportionate adverse impacts of major disruptions across society arising from digital, health, economic, racial, and gender disparities. In addition, it has shown how individuals, organizations, and communities can adapt and cope to severe disruption and how misinformation and disinformation can propagate on digital platforms and lead to an infodemic that exacerbates the crisis.

With billions of connected IoT devices, and sensors, and with individuals, organizations, and governments highly reliant on digital technologies and infrastructure, digital initiatives have become foundational for resilience. A number of agencies and organizations have launched initiatives to leverage digital technologies to rethink systems and processes that would help them to cope with the pandemic and become resilient to future disruptions of such magnitude. Just as the 2008 financial crisis sparked the growth of gig economy platforms like Airbnb, Lyft, and Uber, the COVID-19 pandemic has fueled attention toward digital innovation and transformation to build resilience.

This special issue welcomes work on digital resilience that is informed by the COVID-19 pandemic. It also welcomes work in the context of other major exogenous shocks—technological, economic, political, and social—which are cross-industry, affect a substantial part of society, and present great uncertainty in the duration and course of the disorder.

¹A. Rai, “Editor’s Comments: The COVID-19 Pandemic: Building Resilience with IS Research,” *MIS Quarterly* (44:2), pp. iii-vii.

What We Seek for the Special Issue

Before discussing what we seek in the special issue, it is important to indicate the types of submissions that are *outside the scope* of the special issue. **Studies on digital resilience to disruptions that are narrower in scope and are not exogenous across industries (such as those limited to individual organizations or one industry) or are otherwise localized are outside the special issue scope.** For example, data breaches and security attacks faced by organizations on an ongoing idiosyncratic basis do not represent resilience to major exogenous shocks and are outside the scope of the special issue.

We summarize the key aspects of what we are seeking with the special issue:

Focus on digital resilience to major exogenous shocks. We particularly welcome work on digital resilience to the COVID-19 pandemic. We also welcome work in the context of other life-threatening events such as natural disasters and terrorist attacks, where lives and livelihoods are severely threatened. In addition, we welcome work on digital resilience to major economic and technological shocks, as well as social and political shocks, which disrupt the functioning of business and society.

Regardless of whether the study about digital resilience is in the context of COVID-19 pandemic or other major exogenous shocks, we are looking for work that is innovative and forward looking, challenges how we have traditionally conceived digital resilience, advances novel perspectives on understanding and achieving digital resilience, and makes a significant scholarly and practical contribution.

Salience on information systems in understanding digital resilience and in the theoretical and empirical contributions. We welcome work that addresses any aspect of designing, deploying, and using information systems to quickly recover from or adjust to disruptions and disorder resulting from major exogenous shocks. We encourage theoretical and empirical research studies that shed light on the shortcomings of prior digital initiatives as well as research that provides insights into the novel features and artifacts of successful initiatives that help build digital resilience or those that are not effective.

Emphasis on both the technical and managerial aspects of digital resilience. We expect studies to consider the interplay of technology and management considerations and correspondingly advance our understanding on how digital technologies and initiatives can be effectively managed for digital resilience. Studies that focus only on the technical aspects without placing salience on management of digital initiatives in response to the crisis do not correspond to the focus of the special issue.

Digital resilience from diverse theoretical perspectives and methods across levels of analysis. We seek work that advances our understanding of digital resilience at any level of analysis. We do not want labels and scripts associated with traditional IS paradigms of behavioral, design, economic, and organizational perspectives to constrain how this important phenomenon is investigated, and welcome cross-paradigmatic innovative approaches that advance our understanding of digital resilience. We welcome interdisciplinary work but expect primacy to be on information systems in formulating the research and the implications for scholars.

Any form of rigorous theoretical contribution (conceptual or empirical) using any scholarly method is welcome. While we welcome papers across diverse theoretical perspectives and research methods, descriptive studies that summarize the state of practice without a corresponding contribution to theory are not suitable for the special issue.

Papers must address the core theme of digital resilience in relation to exogenous shocks and potential topics include, but are not limited to:

- Leveraging digital platforms to build resilience across an ecosystem.
- Leveraging digital technologies including machine learning and AI that integrate geospatial, temporal and social data to build resilient organizational processes, business models and strategy, and to manage infodemics that arise during crises.
- AI innovations such as autonomous real-time surveillance systems for spotting, tracking, and predicting outbreaks of pandemics and building resilience to them.
- Data security and privacy issues stemming from the use of digital technologies during the COVID-19 crisis.
- Understanding how digital technologies help to create a resilient society by changing peoples' behaviors.
- Understanding the role of online social networks and communities to build resilience in a pandemic.
- Leveraging digital technologies in mobilizing community resources and services to respond to the disruption.
- Digital innovations in remote learning and education as well as in remote work during the COVID-19 crisis.
- Digital innovation and transformation in the public sector and NGOs responding to the COVID-19 crisis.

- Information architectures and governance frameworks that promote digital resilience.
- Methods to design autonomous and self-resilient information systems.

Special Issue Editorial Board

The senior editors will choose an anonymous associate editor for each paper from *MIS Quarterly*'s current associate editors or from an additional Special Issue Editorial Board (listed below, alphabetically). Reviewers may also be chosen from the Special Issue Editorial Board or from the broader IS community.

Hillol Bala, Indiana University	Eric Monteiro, Norwegian University of Science and Technology
Adela Chen, Colorado State University	Sudha Ram, University of Arizona
Ben Choi, Nanyang Technological University	Nachiketa Sahoo, Boston University
Anne-Laure Fayard, New York University	Torsten-Oliver Salge, RWTH Aachen University
Gordon Gao, University of Maryland	Soumya Sen, University of Minnesota
Tomer Geva, Tel-Aviv University	Ramesh Shankar, University of Connecticut
Stefan Haefliger, City University of London	Tianshu Sun, University of Southern California
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Safadi Hani, University of Georgia	Ping Wang, University of Maryland
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Juhee Kwon, City University of Hong Kong	Shun Ye, George Mason University
Yu-Kai Lin, Georgia State University	Dezhi (Denny) Yin, University of South Florida

Process and Timeline

Submissions are due **November 30, 2020**. All papers must be submitted in the special issue category through MISQ's ScholarOne submission site located at <https://mc.manuscriptcentral.com/misq>. The system will be open for submissions to the special issue from November 1, 2020, to November 30, 2020.

All submissions must adhere to MISQ submission instructions (see <https://misq.org/instructions/>).

Papers that pass the first round of review will be invited to a Paper Development Workshop (virtual or face-to-face format to be determined). The workshop will use presentations and panels oriented toward developing papers to make it the strongest special issue possible.

Key Dates

- First round submission: November 30, 2020
- First round decisions to authors: March 2, 2021
- Paper development workshop: May 2021
- Second round submission: July 1, 2021
- Second round decisions to authors: October 1, 2021
- Third and final round of submissions: January 15, 2022
- Third and final round of decisions to authors: March 15, 2022 [i.e., 2-month review cycle by the editors only, not reviewers]