Technological, Educational, and Organizational Impacts of Global Crises Introduction to Mini Track

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Abstract

The minitrack "Technological, Educational, and Organizational Impacts of Global Crises," featured in the "Organizational Systems and Technology" track, explores innovative responses to global challenges. Papers examine diverse topics, including faculty learning communities' role during the COVID-19 online teaching transition, extended reality applications in crisis management, consumer behavior amidst lockdown-driven food delivery surges, and the role of information systems in addressing climate health. Together, these studies highlight the transformative potential of technology in navigating crises and fostering resilience.

1. Introduction

The world faced an unprecedented catastrophe during the COVID-19 pandemic. The unusual circumstances created by COVID-19's rapid spread provide a unique opportunity to study the role of Information Systems and Technology in supporting people through this pandemic and beyond to other global crises. This minitrack considers topics related to the global crises' impacts on jobs and work (for both employers and employees), education and educational institutions (including learners and educators), family and home life (including life-changes for adults and children), and global society.

In this minitrack, we welcome submissions of full research papers or research in progress, including theory articles, literature reviews, teaching cases, or studies employing qualitative, quantitative, mixed methods, and design science research methods. Topics of interest include, but are not limited to, technology's role in addressing:

- Opportunities and challenges during global crises
- Consequences of global crises, such as COVID-19, on work, education, and society
- Working from home during lockdowns
- Best practices in education and work contexts
- Digital transformation and the future of work and education
- Using ICT to foster learning, working, and social activities
- Social isolation and well-being
- Work-life boundaries and conflicts
- Implications for policy and practice
- Nontraditional virtual teams
- Social and business norms
- Disaster plans and business continuity planning
- Resource sharing challenges

2. Background of Mini Track Papers

Four papers are included in this minitrack, and they collectively showcase the diverse and innovative ways in which information systems have addressed pressing global challenges, particularly during times of crisis. The paper *"Enhancing Faculty Confidence in Online Teaching: The Impact of Faculty Learning Communities During the COVID-19 Transition"* examines the role of structured faculty learning communities in facilitating the abrupt shift to online teaching during the pandemic. The paper *"Navigating Crises with xReality: From Concept to Frontline Application"* explores the application of extended reality (xReality) technologies to navigate crises, demonstrating their utility from conceptualization to frontline implementations. The paper *"From Panic to Provisions: Unraveling Consumer Emotions Amidst the Food Delivery Rush During COVID-19 Community Lockdown"* delves into consumer behavior during lockdowns, unraveling the emotional drivers and digital mechanisms behind the surge in food delivery services. Finally, the paper *"Information Systems Research for Climate Health: An Agenda to Tackle the Imminent Global Health Crisis"* charts a forward-looking research agenda, urging the IS community to address the intersection of climate change and health, and highlighting the critical role of information systems in mitigating global crises. Together, these papers underscore the transformative potential of information systems in tackling complex, real-world challenges.

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3. Description of Mini Track Papers

The first paper is entitled **Enhancing Faculty Confidence in Online Teaching: The Impact of Faculty Learning Communities During the COVID-19 Transition**. **Abstract**: The COVID-19 pandemic drove a rapid shift to online teaching in higher education, prompting a profound transformation. This study examines the pandemic's impact on faculty confidence, pedagogy, and institutions. We investigate the effectiveness of Faculty Learning Communities (FLCs) in aiding faculty adaptation to online teaching. We analyze changes in faculty confidence and readiness using quantitative data, including pre-and post-surveys (n=192). Results show a significant post-FLC increase in confidence, emphasizing the importance of targeted professional development. Prior online teaching experience correlates positively with confidence. The paper discusses implications for faculty development and organizational resilience, elucidating the challenges and opportunities in higher education's digital transformation, with technology and organizational systems playing crucial roles in fostering faculty resilience and innovation amidst crises.

The second paper is entitled **Navigating Crises with xReality: From Concept to Frontline Application. Abstract**: In a world increasingly facing crises, developing effective crisis management strategies is crucial. This study explores xReality (XR) technologies as innovative tools to enhance crisis management. By assessing the Technology Readiness Levels (TRLs) of XR applications and their adaptability at different crisis stages, we provide new insights for designing more effective preparedness and response strategies. Through a comprehensive literature review, we categorized 55 papers into technology, user, and content based on the xReality framework to analyze XR's current state and evolution in crisis scenarios. Our findings highlight a significant gap between XR's potential and its application, with many solutions still in early development. This paper proposes a detailed research agenda to advance XR technologies from concept to application, aiming to improve crisis outcomes. It is a call to action to harness XR's untapped potential to revolutionize crisis management in our volatile world, bridging the gap between potential and practice.

The third paper is entitled **From Panic to Provisions: Unraveling Consumer Emotions Amidst the Food Delivery Rush During COVID-19 Community Lockdown**. **Abstract**: Modeling consumers' decision-making processes during crises and the collective impact of their emotions is crucial for building future resilience. In this paper, we collected and analyzed social media, news, and financial market data of gig-economy-based food and grocery platforms. These platforms emerged as lifelines during the COVID-19 lockdown in 2020. Leveraging Natural Language Processing (NLP), statistical, and time-series methods, we concluded the direction and magnitude of consumer emotion changes during the crisis and observed that consumer emotions (disgust and fear) following service changes influence the stock performance of these platforms.

The fourth paper is entitled **Information Systems Research for Climate Health: An Agenda to Tackle the Imminent Global Health Crisis**. **Abstract**: Climate change constitutes an imminent global health crisis threatening human health directly through extreme weather events and indirectly via altered disease patterns and food insecurity. This paper identifies climate health as an emerging field, emphasizing the critical role of Health Management Information Systems (HMIS) in mitigating the negative health impact. By leveraging Early Warning Systems (EWS) and integrating climate data, HMIS can provide decision-makers with actionable information. The study employs a Retrieval-Augmented Generation (RAG) chatbot to review a large corpus of interdisciplinary literature, highlighting the need for Information Systems (IS) research on EWS design and integration, climate health information systems in practice, resilient health systems, capacity building for climate health action, and institutional impact of digital innovation. The findings underscore the importance of developing robust, adaptive IS to support climate health actions and outline a comprehensive IS research agenda to address the multifaceted challenges climate change poses to public health.

4. Future Research Contributions

As we navigate the wake of the unprecedented challenges posed by global crises, this mini track sets the stage for future research contributions that delve deeper into the complex intersections of Information Systems and Technology with our evolving world. In the domain of work, education, and society, potential paths for exploration include the long-term effects of digital transformation on job structures, innovative approaches to sustaining the "new normal," and the evolving landscape of virtual teams. By fostering a collaborative space for diverse research methodologies and perspectives, we aim to advance a collective understanding of the multifaceted role of technology in shaping our post-crisis future.