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The Role of Digital Technologies in Shaping the Post-Pandemic World

21st IFIP WG 6.11 Conference on e-Business, e-Services and e-Society, I3E 2022 Newcastle upon Tyne, UK, September 13–14, 2022 Proceedings





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Preface

This book presents the proceedings of the 21st International Federation of Information Processing (IFIP) Conference on e-Business, e-Services, and e-Society (I3E), which took place in Newcastle upon Tyne, UK, during September 13–14, 2022. The annual I3E conference is a core part of Working Group 6.11, which aims to organize and promote the exchange of information and cooperation related to all aspects of e-business, e-services, and e-society. Considering the nature of the conference and the interest of the community, the I3E conference series is an interdisciplinary one, welcoming contributions from both academicians and practitioners alike.

Given the restrictions imposed due to the pandemic, the 21st conference was the first in-person one since 2019. The COVID-19 pandemic is arguably one of the most defining crises our societies have experienced in the past 50 years, both in terms of the global reach and its impact on numerous levels. In a very short time SARS-CoV-2 has created havoc across continents, effectively halting social and economic activities. In such unprecedented times individuals and private and public organizations had to respond with unprecedented measures, which had a similarly unprecedented impact. The scars of COVID-19 will be deeply felt for a long time. Not surprisingly, information and communication technologies had a vital role to play. Social distancing meant that online applications became critical in ensuring the continuity of personal and business services. An online meme asking "Who led the digital transformation of your company?" with COVID-19 as the chosen answer perfectly captures the urgency with which existing digital services were extended and new ones were rolled out, often in haste. IT managers had to react quickly to a rapidly escalating crisis and come up with innovative solutions to ensure business continuity.

Although everyone is eager to return to "normal", the post-pandemic businessas-usual is likely to be different to that which individuals and organizations were accustomed to before the pandemic. Understanding the changes that have taken place and their impact in the future is a pressing priority, if we are to thrive in such a turbulent environment. To this end, I3E 2022 invited submissions that aimed to offer topical insights into areas of interest. More specifically, the theme encouraged authors to consider the role that digital technologies can play in shaping a post-pandemic world. However, in line with the inclusive nature of the I3E series, all papers related to e-business, e-services, and e-society were still welcome.

We accepted submissions in two main categories: full research papers and short research-in-progress papers. Each submission was reviewed typically by three knowledgeable academics in the field, in a double-blind process. The conference received about 72 submissions, with half of them making it to the proceedings, subject to the authors' consent. The final set of papers included in the proceedings were clustered into eight groups, as listed below. Each group features conceptual, empirical, and review papers, covering each theme from a number of different vantage points.

- Artificial intelligence: a topical group of papers that consider a wide range of AI applications and contexts.
- Careers and ICT: papers on the role that ICTs can play in supporting careers but also ICT as a career choice
- Data and Analytics: papers considering different aspects of collecting, analyzing, and using data for research and practice purposes.
- Digital Innovation and Transformation: this group of papers includes research that examines how organizations can innovate and transform themselves and their products/services using digital technologies.
- Electronic Services: this group features studies considering different aspects of developing and offering services underpinned by digital technologies.
- Health and Wellbeing: papers examining how digital technologies can support health systems and promote the wellbeing of users.
- Pandemic: this group of papers offers insights into different aspects of user and organizational experiences when facing the challenges that COVID-19 has created.
- Privacy, Trust and Security: these papers consider how regulation could affect users and how privacy might impact adoption.

The 21st IFIP I3E Conference was the outcome of collective work over a period of much uncertainty. Despite restrictions being relaxed, we appreciate that we are not back to "normal" and traveling to a conference is not as easy as we would have hoped. This especially applies to international conferences like I3E, which aspires to welcome colleagues from around the world. We hope that the 21st conference will become a stepping stone on this ongoing journey towards the new normal.

We would like to thank the authors, reviewers, the Program Committee, our keynote speakers, Springer LNCS as the publisher of these proceedings, and everyone who contributed to the success of I3E 2022. We are grateful for all the energy, time, and dedication put into making this conference a success. Last but not least, we would also like to thank Newcastle University Business School for hosting, supporting, and sponsoring the conference.

July 2022

Savvas Papagiannidis Suraksha Gupta Eleftherios Alamanos Yogesh K. Dwivedi Matti Mäntymäki Ilias Pappas

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