EDITORIAL

Special issue on the Covid-19 inflicted digital transformation in ambient and more distant environments

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There is a certain, and justifiable, Covid-19 fatigue in academic research. Following the natural surge in interest in discipline specific questions pertaining to the impact and implications of the pandemic, today, nearly three full years after its outbreak, news about new variants of the virus pass largely unnoticed in the media. And yet, regardless of the weary sighs a simple mention of Covid-19 may evoke today, it is important to look back, to reflect, to draw lessons and make sure they are fed into the contingency plans being developed today; if.

The origin of this special issue goes back to the lockdown and the countless exchanges of messages our scholarly community had on developments in our ambient environments. What would bring us together was the pervasive feeling of uncertainty, coupled nevertheless with the recognition – given our engagement with advances in sophisticated information and communication technology (ICT) – that purposeful deployment of ICT may mitigate several of the challenges we were identifying in our imminent and more distant environments. In brief, at the heart of the discussions we had was the question of how – in times of unbearable uncertainty and risk – to use advanced ICT-enhanced tools and methods to facilitate human interaction and community building, how to build and share knowledge and skills, how to improve the quality of work, and how to use this under-explored potential to make the business sector, economy, politics and society more resilient. This special issue is devoted to this broad topic.

Several papers were submitted to the initial call for papers. Of these, following arduous, multi-stage 'review and revise' process, ten papers were eventually published. Today, these papers offer a captivating insight into the question of how a crisis, in this case the Covid-19 pandemic and its direct corollaries, served as a profound trigger to identify new, human-centric uses of the already existing technologies and applications. Indeed, the papers included in this special issue dwell on diverse facets of the issue and thus may be divided into four groups, including the biopsychosocial (BPS) implications of the pandemic and the ways sophisticated ICT-based tools may mitigate some of their results; early diagnosis, treatment, and applicability in other diseases; impact on economy and business activity; and finally implications of the Covid-19 pandemic on the overall attitude toward technology use, including also the question of the human-computer relationship.

Specifically, the special issue opens with the question of risk and safety perception during the pandemic. While risk and safety perceptions are important, the value added of the first paper included in this collection lies in the recognition of the powerful role mobile application play today, also in context of data collection. In a similar manner, the second paper in this special issue focuses on Tweets. By employing advanced tool of sentiment analysis, the paper examines the population's views of the pandemic. Domestic violence, especially gender-based violence, escalated under the conditions of lockdown. The following paper included in this special issue explores social media to identify information about it, to measure the scale of the phenomenon, and to suggest ways of addressing the problem. As ever, regulatory issues are key in relation to what can be done and how. The case of the Covid-19 pandemic suggests that a certain lag in the regulatory process emerged worldwide, in that faced with a situation of emergency, the authorities, be it at central or local government level, would respond to it ex post. The fourth paper included in this collection elaborates on it.

The second group of papers published in this special issue explores the ways in which machine learning and artificial intelligence can boost the capacity of early detection, diagnosis, and hence also treatment of the Covid-19 pandemic. There is more to that, however, in that – as the two papers

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included in this section demonstrate – the lessons learned, the tools developed, and the processes instated to deal with Covid-19 are of value and may be applied to either diagnose or to manage other diseases.

The following group of papers focuses on the business sector in connection the pandemic. The question is to what extent and how the situation of emergency the pandemic inflicted can be navigated by ICT-based tools. This includes the impact of the lockdown on supply chains, locally, regionally, and globally. Here, the question of the Covid-19 vaccine distribution is discussed. However, the micro-perspective of individual enterprises is also discussed. Here the notion of ICT-based approaches to management is discussed as a function of antifragility. The collection of papers included in this special issue closes with two papers that explore the implications of the pandemic on our societies' uptake of technology. While, certainly, several aspects of this issue exist, and have been explored in the literature, the papers outlined here address the questions of digital literacy and of human-computer interaction.

In times of uninterrupted, but not necessarily unrestricted, information flow, faced with misinformation, and rising competition among news outlets, a perception prevails that developments and phenomena our societies face today are unprecedented and unique, scale- and implications-wise. The resulting alarmism of popular narrative does not encourage either unhurried conversation or calm arguments. And yet, it is the past that bears the key to several enigmas of today. The papers included in this special issue may be read in this way too.