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Humans and technology in managing the unexpected.

Call for Paper – Special Issue

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The shock of the health crisis, the subsequent lockdowns, and now the outbreak of war in Europe has changed the nature of the economic and social problems of our societies. The pandemic has led economies into deep recessions, and the recovery is requiring huge individual and collective efforts. The Russian-Ukrainian war is having a devastating human, social and economic impact on the people who live in the war zones. Moreover, the conflict also has reverberating effects globally, in terms of emerging geopolitical instabilities, the threat of a conflict escalation, and economic consequences worldwide, such as energy shocks, rising commodity prices, and food security.

These events have unhinged the idea of managing for effectiveness, let alone efficiency, calling into question the basic feature of management and organization as disciplines and fields of practice that help people and organizations alike anticipate their future and shape their surroundings (Flyverbom and Garsten, 2021).

By contrast, the interest in organizations and organizing as tools to face the unexpected is flourishing and gaining popularity among scholars and practitioners (e.g. Raetze et al., 2021), to the point of transforming a niche conceptualization (e.g. Tobin, 1999 and Kendra & Wachtendorf, 2003 for resilience in disaster management) into a mainstream one (e.g. Hällgren, Rouleau, & De Rond, 2018; Williams et al., 2017). The debate on managing the unexpected (Weick & Sutcliffe, 2015) exploring antifragility (Taleb, 2007), designing for resilience (Vogus & Sutcliffe, 2007), and coping with the aftermath of an extreme event (Sonnentag & Frese, 2013) have thus become central in the organizational discourse (Linnenluecke, 2017; Raetze et al., 2021)

The XXIII WOA 2022 – Workshop of Italian organizational scholars, organized in Brescia in May 2022 – aims at discussing these issues.

A few recent reviews show that resilience is a topic of growing interest in many different and disconnected streams of literature in organization studies (e.g., Linnenluecke, 17; Raetze et al., 2021), explaining how resilience is a central concept in understanding how different entities across different levels deal with different types of adversity (Hällgren et al., 2018). Taking stock of this literature, we offer a brief "starting package" on the concept of resilience as a useful guideline for interested researchers to fit their studies into broader themes. First, we point to the

essence of the definition of resilience that - accordingly to the different levels of analyses (i.e., individual, dyad, teams, organization or societal systems) - can be conceived as a trait, a capacity/capability, an outcome, or a process (Linnenluecke, 17; Raetze et al., 2021), respectively; or as combinations and the time horizon in which resilience occurs (i.e. before or after an adverse situation; Williams et al., 2017). Second, we highlight how the most recent studies claim the need to explore in detail the context both in terms of the type and degree of unexpected/adverse event or situation (Hällgren et al., 2018; Williams et al., 2017) but also the role that contextual factors specific to both the research setting and the resources, capabilities, structure, and process in place (at different levels of analysis) play in the development and enactment of resilience (Linnenluecke, 17; Raetze et al., 2021) and their interdependence. Third, we signal two very under-developed themes such as the dark side of resilience; the temporal dynamic of resilience, and therefore the distinct forms of resilience that can be built and its role as a mediator or moderator in the recovery process (Raetze et al., 2021; Williams et al., 2017).

In this special issue, we build on this knowledge base and expand the direction of future research by highlighting how the interaction between humans-technology and its interplay with resilience in the face of unexpected events remains largely unexplored. The relevance of this line of inquiry is also suggested by Ciarli et al. (2021) in their overview of the many possible dynamic interactions between technologies and organizational processes. They clearly illustrate how the relationship between humans and technology such as the adoption of digital technologies, the disruption of routine, and the request for new skills can be affected by impactful events such as the recent pandemic. This example invites us to reflect on the role of technology dynamically as 1) an enabling feature transforming the constraints of time and space in working activities fostering resilience, and 2) as a trigger for unexpected changes adding a second layer of reflections on the meaning of technology in work activities that transform expectations on and about work. This last aspect is especially relevant as radical advances in robotics, artificial intelligence, and digitalization are challenging organizational practices and our understanding of technology's influence on the future of work (Balliester and Elsheikhi, 2018).

While technology has clearly supported individuals and organizations in facing the challenges and coping with the uncertainty of the pandemic, the increasing use of digital technologies has also brought many negative consequences.

From one perspective, abundant research in organization studies explains the 'transformative' (Mørk et al., 2012) and 'augmenting' effect of technologies on human capabilities (Brynjolfsson and McAfee, 2014; Varian, 2014). These studies are consistent with decades of research by scholars in organization studies and in other fields of social sciences such as economists, historians, and sociologists explaining how organizational actions and decisions shape the adoption of technology toward efficiency and prosperity. In fact, digitalization has allowed a rapid shift to remote working arrangements (Leonardi, 2021), which has been one of the most effective organizational strategies to cope with Covid-related restrictions while keeping the activities alive. Also, technology has been vital to healthcare organizations, or to

schools, and other organizations in the educational sector. Moreover, these changes have expanded collaborative spaces in work and organizing.

However, several analyses portray also many negative consequences that can be traced back to the process of digitalization and the increasing role of remote work arrangements in recent years, such as the increasing difficulties of workers in managing work-life balance and the enlarged scope of technostress. These studies echo an extended stream of research exploring the dark and unexpected sides of technology and digitalization (Trittin-Ulbrich et al, 2021). These analyses maintain that the adoption of digital technologies has impoverished human skills and enabled the proliferation of precarious work (De Stefano, 2016; Frey and Osborne, 2017; Kellogg et al., 2020). Also, digitalization exposes individuals and organizations to cyberattacks (Couce-Viera et al, 2020), and it enables the concentration of market power to a few monopolistic platform firms, supporting corporate control of individuals (Zuboff, 2019). Some analyses even support the idea that the increasing adoption of artificial intelligence may end up erasing the role of humans in decision-making and usher 'the end of choice' (Lindebaum et al., 2020). These effects may hinder organizational resilience as the ability of organizations to respond and recover when they face a crisis.

From many angles it seems that «everything is changing» and scholars are required to devote novel scrutiny to both new and consolidated, fundamental questions and taken-for-granted frameworks. From this perspective, many interesting research questions have become prominent: how do organizations adapt their structure to the emerging contextual situation, and what role has been played by humans and technologies in the process of change? Did the adoption of digital technologies highlight or overshadow the role of human skills in performing work activities? What role has been played by technology in the development of routine and learning capabilities dedicated to the anticipation of adversities? Is remote work here to stay? Are there any lasting effects on work and organizing that are already clear from the data?

The aim of this Special Issue is to consolidate and further develop ongoing efforts to advance current understandings of the role of humans and technology in managing the unexpected. The intention is for the Special Issue to be as broad as possible, considering the several developments that the discourse can take up. Therefore, we welcome both conceptual and empirical contributions.

Authors interested in submitting a paper to the Special Issue are encouraged to approach the topic of Humans and technology in managing the unexpected by focusing on (the list is indicative):

- The healthcare sector;
- SMEs/ Family firms;
- Public sphere;
- Learning processes;
- Education and training;

- Remote and agile working arrangements;
- Collaborative spaces / Coworking / Teamworking;
- Crowdsourcing / Co-design / Co-creation;
- Wellbeing / Stress / Technostress / Great resignation;
- Data/ Digital data ecosystems;
- Digital job crafting;
- Cyberattacks / Cyber-resilience;
- Culture and multiculturalism;
- Issues of Diversity / Gender / Disability / Racism;
- Paradoxes / between efficiency and resilience;
- Tensions between routine and mindfulness.

Rigorous theoretical and empirical research, both qualitative and quantitative, that are relevant to organizational settings is called for. The aim is to deepen and expand the scientific conversation on the topic. The Call for paper is open to both papers accepted for presentation at WOA 2022 and contributions not previously submitted to the conference.

The deadline for the full paper submission is **October 16th, 2022.** The review process will be performed according to the journal rules. The expected publication date is December 2022.

Useful information on how to submit contributions according to the journal guidelines can be found here.

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