Organizing in an automated world: emerging tensions and paradoxes

This track invites contributions on the evolving nature of tensions and paradoxes in organizations adopting artificial intelligence (AI). The introduction of digital capabilities, systems and infrastructures in organizations engenders a set of conditions that drives contradictions, tensions and paradoxes between established and novel processes. AI and automation have the potential to escalate tensions and paradoxes as they reshuffle the balance between entrenched patterns of actions and emergent opportunities. Will this kind of automation foster entirely new types of paradoxes? How will organizations adapt? A well-established strand of literature in management and IS has demonstrated how the adoption of digital innovations in organizations always entails managing different types of tensions such as exploration vs exploitation in organizational learning (Aaltonen & Kallinikos, 2013), adaptability vs alignment in business processes (Gibson & Birkinshaw, 2004), flexibility vs standardization (Hanseth & Lyytinen, 2010), global integration vs local responsiveness (Devinney et al., 2000) and collective vs individual in platform ecosystem innovation (Wareham et al. 2014). Adopting and implementing digital technology solutions in organizations is associated with changes that subvert existing organizational structures and practices of control (Tilson, Lyytinen, & Sørensen, 2010; Wareham et al. 2014). Digital innovation, for instance, brings about risks which challenge established information security practices (Raza, Baptista, & Constantinides, 2018). With the recent advancements in Artificial Intelligence and the proliferation of its different applications in machine learning, algorithmic management, automated reasoning and image recognition, organizations are confronted with new challenges. Automation and intelligent technologies seem to open up an entirely new different set of tensions such as for instance the tension arising from the loss of human agency in decision making and the erosion of organizational agency in controlling the outcomes of algorithmic processes. The complex and opaque nature of many AI applications appears to challenge established work flows and organizational processes putting extant organizational structures and the reliability of organizational decision outcomes at risk (Shrestha, Ben-Menahem, & von Krogh, 2019; von Krogh 2018).

We welcome contributions that reflect upon the evolving nature of tensions and paradoxes in organizations implementing automation and adopting AI based solutions. Contributions may be either theoretical or empirical and may interrogate the nature and quality of change emerging from the latest developments in AI and automation (von Krogh, 2018). Extant literature has paved the road using insights from tensions and paradoxes as a source for theory development (Poole & van de Ven, 1989), we welcome contributions using paradoxes emerging from AI adoption to interrogate the nature of digital innovation within organizations and society (Alaimo & Kallinikos 2017). We also welcome empirical contributions that engage with different social contexts and domains to illustrate how organizations adapt to the latest technological developments in AI and automation. In managing such new set of tensions, organizations may require new mechanisms, capabilities and approaches. Contributions may be specific in addressing automation, AI adoption or implementation and consequent changes in business processes and models, tensions related to decision making processes, organizational responsibility, transformation of work practices, cybersecurity. We especially encourage authors to explore these paradoxical tensions at different level of analysis, such as individual, team or project, organization such as platforms and platform ecosystems (Alaimo, Kallinikos & Valderrama, 2020; Hannah & Eisenhardt, 2018; Wareham et al. 2014). Submissions may also look at the social consequences of organizing in an automated world.

Authors are encouraged to submit the research (complete full or in-progress research papers) offering empirical, theoretical or conceptual implications. Topics of interest include, but not limited to, the following:

Track main topics

- Loss of human agency in organizational processes and the erosion of organizational agency in controlling the outcomes of algorithmic processes.
- The impact of automation on collaboration and competition in digital platforms and/or platform ecosystems
- AI, automation and new business models
- AI and new work practices
- Emergent tensions and paradoxes in organizations adopting AI applications and intelligent systems (i.e. prediction-based systems, cybersecurity, personalization, etc.)
- The impact of data and algorithms on organizational decisions and implications (i.e. quality of input, bias and black-boxed performance of AI, etc.)
- AI, automation and new organizational design (i.e. decision-making process, regulations, procedures, etc.)
- AI and organizational responsibility

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Cristina Alaimo is Assistant Professor (Research) in Digital Economy and Society at LUISS Guido Carli University, Rome. She holds a Ph.D. in Management, Information Systems and Innovation from LSE – The London School of Economics and Political Science, London. Her research focuses on the innovation brought about by data-based services and their consequences for organizations and society. Cristina's work has been published in journals such as The Information Society, Journal of Information Technology and Research in the Sociology of Organizations. Cristina is currently Visiting Research Fellow at Surrey Business School, University of Surrey, UK.

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