Socio-Technical perspectives for a sustainable future of work and society

Contemporary Socio-Technical perspectives can be seen as a cornerstone in discussions about the human agency in the pursuit of organizational excellence. Now, the so-called "future of work" (OECD 2018, WEF 2019) will be characterized by economical and societal discontinuities implied by the spread of the adoption of digital technology (such as Robots, Cobots, AI, IoT and 5G). These changes, however, must be designed - if not by focusing on individuals, according to a human centered perspective such as human-centered design (Shin, 2014) – by taking into account the systemic effects between people and technology. The agenda moves from technology developed to replace human activities, or to be used by human agent – towards sociotechnical agendas where technology supports human activities as technical partners and collaborative agents – not simply as tools (Bednar and Welch 2019). Flexible working practices need flexible technological solutions (Leonardi 2011).

The coronavirus pandemic has induced many companies in accelerating their digitalization process, but it remains unclear whether initiatives and actions represent a (tactical) reaction to the emergency or belong to a strategic crisis and recovery plan. A plan socially and technologically *sustainable* while coherent with strategic aims of the organization. Designing as part of the digital economy, digital enterprises, digital services and products, implies a multidisciplinary effort (Barrett et al. 2015, Lyytinen et al. 2016), that is embedded into the sociotechnical system perspective/model (King et al. 1999, Luna-Reyes et al. 2005).

In this track, we are interested in sustainability from a sociotechnical perspective (for example the triple bottom line, the quadruple bottom line and systemic sustainability). Another growing contemporary sociotechnical issue is industrial espionage as a threat to all kind of organizations (i.e. Sadok, Welch and Bednar, 2019). Of course, we invite discussions on all other contemporary sociotechnical practices. This includes Knowledge Management as sociotechnical practice, interaction and communicative action in organizational settings etc. We welcome research discussing - through the lens of the socio-technical approach - initiatives based on AI or Machine Learning. Smart working, industry 4.0 and/or 5.0, society 6.0 are also relevant and future oriented contemporary sociotechnical agendas and topics (i.e. Bednar and Welch, 2019).

We ask authors who submit to make it clear what are their definitions of the foundation terms: they should make it clear which are the basic assumptions underpinning the discussion in their paper. All kind of methods, approaches, philosophies etc. are welcome to be discussed in papers if related to the sociotechnical agenda. This would include data ethnography field studies and IS oriented discussions on innovation and purposeful problem solving, characterized by the design and implementation of digital artifacts, with a particular attention to individual and / or organizational contexts (Bednar, 2000, 2016; Bednar and Welch, 2019).

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itAIS2021
XVIII Conference of the Italian Chapter of AIS
Digital resilience and sustainability: people, organizations, and society

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Track main topics

Topics include (but are not limited to):

- Work systems, smart working and job-crafting
- Organizational change and pursuit of excellence
- Engaging with Complexity and Systems Thinking in practice
- Information, Knowledge Management and Communicative Action

itAIS2021

XVIII Conference of the Italian Chapter of AIS
Digital resilience and sustainability: people, organizations, and society

- Cybersecurity and work systems
- Industrial Espionage
- Human-robot interaction and heterogeneous teams in organizations
- Socio-technical model relevance in times of emergency/crisis emergence
- Human-machine engagement vs human-machine integration
- The future of automation
- Role of humans (at the organizational and at the society level) in a hyper automated firm / industry.
- Side-effects on long term performances of hyper-automated firms/ industries in highly competitive and changing economic environments
- Socio-technical approaches going beyond the limitations of digitization meant only as automation
- Industry 5.0 and Society 6.0
- Systemic sustainability issues and side-effects in a hyper-automated firm
- Sustainability as governance
- Sustainable systems and sustainable systems boundaries
- Benefit Management as part of work system and organizational change
- Complexity as difference between emergency and crisis
- Hard-systems thinking vs soft-systems thinking
- Discerning method with philosophy of method
- Relating foundations, methods and sustainability
- The problem with foundations and the nexus with approaches/techniques/models
- Adequacy of socio-technical models in times of emergency/crisis emergence

Type of contributions invited:

We invite full research papers, research-in-progress papers, experience-in-the-field reports and case reports. Both empirically and/or theoretically grounded.

Track Co-Chairs

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itAIS2021
XVIII Conference of the Italian Chapter of AIS
Digital resilience and sustainability: people, organizations, and society

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Bios of track Co-Chairs

Peter Bednar is a Senior Lecturer and Chair of the Systems and Information Systems Research Group in the School of Computing at the University of Portsmouth, UK. He is a Visiting Researcher at the Department of Informatics, Lund University, Sweden and Visiting Professor in the Department of Systems Engineering at the University of Life Sciences in Prague, Czech Republic. His research areas include Systems Thinking, Socio-Technical Approaches, Critically Informed IS Practices, Complex Systems, Study of Ambiguous and Uncertain Problem Spaces. Originally an Engineer with years of industrial experience he also holds a Master Degree and a PhD at the Dept. of Informatics at Lund University, Sweden. He is a member of the ItAIS community since more than ten years, IFIP WG 8.6, IFIP WG 8.2, UKAIS, UKSS and more. He has published more than 130 academic peer reviewed papers in journals, books and conferences. He was chairing a Sociotechnical Track for several years at the ECIS and at the ItAIS conferences and was also chairing the ECIS 2018, conference. He is chairing the STPIS 2021 Workshop.

Angela Locoro holds an MA in Modern Literatures, a BSc in Computer Science and a PhD in Informatics Engineering. She is currently assistant professor at Università Carlo Cattaneo in the School of Management Engineering. Her researches fields are Visual Information, Computer Supported Cooperative Work, Human-Computer Interaction, Knowledge Management Systems, and Digital Transformation. She was in the organization committee of the EUSSET Summer School on Computer Supported Cooperative Work and co-chaired the ECIS 2018, 2019, and 2020 editions of this track. Her recent works focused on visual information, human-data interaction, artifacts de-design, and digital business transformation. She has more than 60 publications among peer-reviewed journals, book chapters and international conferences. She is currently teaching statistics and data visualization and her teaching experience includes Web Design, Human-Computer Interaction, Knowledge Management, Digital Business Management, ERPs for business application.

Aurelio Ravarini is Associate Professor of Organization Studies and Human Resource Management at the Università C. Cattaneo – LIUC (Italy). At LIUC he has been director of CETIC, Research Center on Information Systems for ten years. His research expertise is in Digital Transformation and Management of Information Systems. He has been visiting professor in several universities in Europe and USA. Dr. Ravarini holds a Master degree in Management Engineering from Politecnico di Milano (Italy) and a PhD at the School of Computer and Security at ECU (Australia). He is a member of the AIS. He has published more than 80 papers for international journals, book chapters and conferences proceedings. He served as Associate Editor for the EJIS and in the editorial committee of several international conferences.

itAIS2021
XVIII Conference of the Italian Chapter of AIS
Digital resilience and sustainability: people, organizations, and society

Moufida Sadok is currently a senior lecturer at the Institute of Criminal Justice Studies, University of Portsmouth, UK. She is a member of the Systems and Information Systems Research Group and a member of Peace, Security and Conflict Research Group at the University of Portsmouth. She holds a Doctoral degree in Information Systems Management from the University Pierre Mendès France in Grenoble, France. Her main areas of research interest include socio-technical approaches to Information Systems Security and Cybersecurity Governance. She is a member of the AIS and was chairing the ECIS 2018 Track on "Socio-Technical Perspectives on Information Systems Security". She served as Associate Editor in the program committee of several international conferences. She has published more than 40 academic peer reviewed papers in journals, books and conferences.

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