





Living in the digital ecosystem: technologies, organizations and human agency

### Track n. 4 - Socio-Technical perspectives on technology and human agency

Contemporary Socio-Technical perspectives can be seen as a cornerstone in discussions about the human agency in the pursuit of organizational excellence. Now, in the context of the so-called fourth industrial revolution, phenomena such as human use and engagement with big data, everyday interactions with Internet of Things, Social Networking as intertwined aspect of mainstream cultural behavior, are those that allow and interfere with major changes in organizations and in society. These changes, however, must be designed - if not by focusing on individuals, according to the philosophy of human centered design (Shin et al. 2014) – by taking into account the systemic effects between people and technology.

IS research could be described having two different (system) agendas in mind. Technical: represented by artifact focus. Human: represented by work design focus. Socio-technical approaches can be used within both these areas of interest and paradigms and indeed allow to break down barriers between too narrowly focalized researches by acknowledging the entangled nature of the technical and the social components in human activity systems (Trist, 1981). Since technical systems have been recognized to be intrinsically if not intentionally incomplete and perpetually in the making (Kallinikos, Aaltonen, & Marton, 2013), the design and re-design of socio-technical systems should be conceived as a continuous process involving innovators and recipients dealing with complex and evolving artifacts (Mumford, 2006) which cannot be decoupled from the soft, social, cultural and even psychological components (Silver & Markus, 2013). Socio-technical approaches are historically grounded on a combination of humanistic principles. Part of the key contemporary agenda however, is looking on the ability to recognize the editable, interactive, open, and semiotic nature of digital artifacts. This in turn requires attention to be put on the intentionally pursued revision of contextually relevant action of the social environment (Bednar, 2016). Designing as part of the digital economy, digital enterprises, digital services and products, implies therefore 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). Through this perspective, IS field research can provide a relevant contribution to innovation technology management, moving the focus towards to socio-materiality of digital artifacts (Yoo et al. 2015).

In this track, we focus on IS research inspired by socio-technical principles (Baskerville, Pries-Heje, & Venable, 2009), the materiality of digital artifacts (Leonardi, 2011, 2013) and their capability to enable pragmatic significance in situated material configurations (Beynon-Davies, 2011, Mattozzi, 2015). This would include data enthnography 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). We welcome research on Human Oriented Designing Digitalization which focuses on the (human aspect of) omnipresent digital transformation of society, human activities, and how we contribute to this transformation as designers and developers.

Appropriate methodologies can include re-interpreted and re-contextualized components from engineering, computer science, information system, management, social sciences including behavioral sciences. Examples of relevant research include not only empirically grounded research but also theoretically grounded discussions on problem analyses, systems theories, models, and methods. Also welcome is meta-research that proposes either methodological or epistemological advancements, including Philosophy oriented papers.

#### References

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# Living in the digital ecosystem: technologies, organizations and human agency

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Yoo, Y. (2013). The tables have turned: how can the information systems field contribute to technology and innovation management research? Journal of the Association for Information Systems, 14(5), 227.

#### 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.







### Living in the digital ecosystem: technologies, organizations and human agency

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Short bio Peter Bednar is a Senior Lecturer and Chair of the Systems and

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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 for the last ten years, IFIP WG 8.6, IFIP WG 8.2, UKAIS, UKSS and more. He has published more than 120 academic peer reviewed papers in journals, books and conferences. He is currently chairing the STPIS 2018

Workshop and the ECIS 2018, conference.

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Short bio Federico Cabitza is an Assistant Professor at the University of Milano-

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Healthcare setting. He has co-chaired International workshops (on Data Visualization in Healthcare and knowledge IT artifacts), conference tracks (on Socio-technical design), conference programs (for the Italian Chapter of AIS) and special issues on impacted Journals (i.e., the CSCW journal

and Program). He is stable PC member of several international

conferences and associate editor of the International Journal of Medical Informatics. He is author of more than 120 research publications to date, in international conference proceedings, edited books and scientific

journals. He is currently chairing the ST Track at ECIS 2018.

Name – Surname Aurelio Ravarini
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Short bio Aurelio Ravarini is Senior Assistant Professor of Information Systems for

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### Living in the digital ecosystem: technologies, organizations and human agency

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.

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Moufida Sadok

Name – Surname Moufida Sadok Title Assistant Professor

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Affiliation L.A.R.I.M.E, University of Tunis, Tunisia & University of Portsmouth, UK Short bio Moufida Sadok is at the Institute of Criminal Justice Studies, University of

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# Track programme committee members

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- Tommaso Federici, University of Tuscia

#### **Submission**

Submissions will be evaluated through a standard blind review process. Track chairs will ensure anonymity of the review process.

Authors are highly encouraged to seek guidance from Track Chairs prior submitting the paper. We highly encourage authors to formalize this process by sending an abstract to the Track Chairs to receive feedback and guidance. Formal submission must specify the track that they are intended







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for. The page limit for contributions submitted in English is equal to 12 pages (maximum). Formatting rules (LNCS Springer format) are available at this link:

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Deadline for encouraged abstract submission: April 27, 2018

Deadline for full paper submission: May 31, 2018