

“Simplifying” Digital Complexity? A Socio-Technical Perspective. Editorial Introduction to Issue 33 of CSIMQ

Mikko Rajanen^{1*} and Aurelio Ravarini²

¹ INTERACT Research Unit, University of Oulu, Oulu, FI-90014, Finland

² Università Carlo Cattaneo LIUC, Corso G. Matteotti, 22, Castellanza, 21053, Italy

mikko.rajanen@oulu.fi, aravarini@liuc.it

This thematic issue focuses on the importance of socio-technical perspective in research and practice. A socio-technical perspective sees an organization as a combination of two components – a social and a technical one. The real pattern of behaviors in the organization is determined by how well these parts fit each other. While analyzing system problems of getting things done, adequate consideration should be given to technology as well as informal and formal interactions of people with the technology as well as with other people using the technology.

Despite that a socio-technical perspective has been around for over a half century, it is often forgotten in the IS discourse today. Consequently, many “new approaches” appear to reflect on IS systems problems, such as modern IT systems poorly adjusted to the external or/and internal environment (e.g., market, organizational culture) of organizations in which they are (to be) deployed. We strongly believe that it is important that the social-technical perspective finally takes its proper place in IS research, practice, and teaching.

The four papers of this issue provide evidence to this statement. Each of them presents the socio-technical perspective as a lens enabling researchers and practitioners to deal with the complexity generated by the widespread and fast adoption of emerging digital technologies in different contexts and domains: a research field (design ethics), a socio-economical phenomenon (Covid-19 pandemic), an industry (healthcare), and an organizational domain (SMEs). More in detail:

- Rajanen aims at raising awareness and dialogue about ethical dimensions of human-technology design of socio-technical systems in general, the Human-Computer Interaction (HCI) designer responsibility towards users, stakeholders and the society in particular, as well as the raise of dark side of design and the responses of the HCI community to it [1].
- Atanassova and Bednar apply a socio-technical lens to shed light on the organizational learning processes taking place in 40 various sizes and kinds of UK businesses during the Covid-19 pandemic [2].
- Isind and Hult describe the design and development of a mobile app for food nutrition information as part of diabetes self-management [3] and critically discuss its implications for patients and designers.

* Corresponding author

© 2022. Mikko Rajanen and Aurelio Ravarini. This is an open access article licensed under the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>).

Reference: M. Rajanen and A. Ravarini, ““Simplifying” Digital Complexity? A Socio-Technical Perspective. Editorial Introduction to Issue 33 of CSIMQ,” *Complex Systems Informatics and Modeling Quarterly*, CSIMQ, no. 33, pp. I–II, 2022. Available: <https://doi.org/10.7250/csimq.2022-33.00>

Additional information. Author ORCID iD: M. Rajanen – <https://orcid.org/0000-0002-3281-7029> and A. Ravarini – <https://orcid.org/0000-0002-3114-9727>. PII S225599222200181X. Received: 29 December 2022. Available online: 30 December 2022.

- Perozzo et al. address a research gap in the literature that has neglected cybersecurity readiness in SMEs [4].

We are grateful to the authors for submitting the articles reporting their research results. We acknowledge reviewers for analyzing the submissions and pointing to the possibilities of improvement. We hope, the readers will find the article interesting and inspiring, and these articles will stimulate the scientific discussion and encourage researchers to produce and present new scientific contributions.

References

- [1] G. N. Vilaza, K. Doherty, D. McCashin, D. Coyle, J. E. Bardram, and M. Barry, “A Scoping Review of Ethics Across SIGCHI,” *Designing Interactive Systems Conference*, 2022.
- [2] G. Mehralian, S. Sheikhi, C. Zatzick, and J. Babapourb, “The dynamic capability view in exploring the relationship between high-performance work systems and innovation performance,” *The International Journal of Human Resource Management*, pp. 1–30, October 2022. Available: <https://doi.org/10.1080/09585192.2022.2138494>
- [3] J. Fontecha, I. González, A. Barragán, and T. Lim, “Use and Trends of Diabetes Self-Management Technologies: A Correlation-Based Study,” *J Diabetes Res*, vol. 2022, Article ID 5962001, pp. 1–15, 2022. Available: <https://doi.org/10.1155/2022/5962001>
- [4] SME Cybersecurity – ENISA. EU Agency for Cybersecurity Available: https://www.enisa.europa.eu/topics/cybersecurity-education/sme_cybersecurity