

Scandinavian Journal of Information Systems

Special Issue Call for Papers:

Responsible AI – Critical Perspectives on AI-infused Digitalization

Description:

The availability of large data sets and computational power is fuelling the use of Artificial Intelligence (AI) infused systems in work settings. Such systems leverage data-driven inferences (most commonly using Machine Learning algorithms). Managed well, AI can contribute to the common good, play a key role in achieving Sustainable Development Goals and increase the efficiency and quality of work (European Commission, 2020). Managed poorly, AI can increase opacity in work arrangements challenging meaningful human control (Faraj et al., 2018).

For a technology to be characterised “AI” it is important that it demonstrates an ability to learn and even self-improve; at least, this was included in the conceptualisation of AI back in 1955 in the Dartmouth Research Project (McCarthy et al., 2006). Such systems need to be handled as tools for “enhancing human agency, without removing human responsibility” (Floridi et al., 2018). Nevertheless, this is far from trivial.

The resurgence of interest in AI has led to a growing body of research on the AI pitfalls that must be avoided and different guidelines, codes and frameworks to guide the use of AI have been developed (Amershi et al., 2019; Jobin et al., 2019). For instance, it is important to make clear what the AI system can do and how well. Furthermore, it is important to offer functionality for efficient invocation (activating AI services when needed), dismissal (deactivating AI services when not needed) and correction (idem.). AI technologies combined with automation have vast implications for organizing work and for supporting everyday life activities. A new kind of sociotechnical systems, where machines that learn join human learning and create original systemic capabilities is emerging: AI-infused metahuman systems (Lyytinen et al., 2020).

Given the major impact that AI can have on our society, it is important to reflect, discuss and develop critical perspectives on AI including research on issues of power, ideology and institutional change (Bailey & Barley, 2020). This SI calls for contributions in the Scandinavian Sociotechnical Information Systems tradition that introduce novel understandings and methods for including human values in AI-infused systems that can better society (Bergquist et al., 2018; Shollo et al., 2020). The goal of this SI is to consolidate critical perspectives on responsible AI and actively engage in debates over design, policy, and outcomes.

We welcome empirical studies including action research and ethnographically inspired studies, design-oriented research and conceptual papers. Suggested topics include but are not limited to:

- Governance arrangements for AI and their impact on the distribution of control and accountability for tasks and decision making.
- The role of AI on work transformation and the work of transforming organizations with AI.
- The role of AI on business models’ formation and transformation.
- Domain specific aspects of AI-infused digitalization (e.g. healthcare-specific, financial sector-specific).
- Design and deployment approaches for responsible AI.
- Perceptions, expectations and outcomes of responsible AI.
- Theoretical and methodological challenges of researching responsible AI.

Timeline:

Submissions Due:	April 1 st 2021
Initial Screening Decisions:	April 15 th 2021
Round 1 Decisions:	June 1 st 2021
Revisions Due:	September 15 th 2021
Round 2 Decisions:	October 30 th 2021
Second Revisions (if needed):	December 15 th 2021
Anticipated Publication Date:	June 2022

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References:

- Amershi, S., Weld, D., Vorvoreanu, M., Fourney, A., Nushi, B., Collisson, P., Suh, J., Iqbal, S., Bennett, P. N., & Inkpen, K. (2019). *Guidelines for human-AI interaction*. Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems.
- Bailey, D. E., & Barley, S. R. (2020). Beyond design and use: How scholars should study intelligent technologies. *Information and Organization*, (30:2) <https://doi.org/10.1016/j.infoandorg.2019.100286>
- Bergquist, M., Henriksen, H. Z., Ojala, A., & Vassilakopoulou, P. (2018). SJIS Mission: Topical areas and research approaches. *Scandinavian Journal of Information Systems*, (30:2): 3-4.
- European Commission. (2020). White paper on artificial intelligence – a European approach to excellence and trust. https://ec.europa.eu/info/sites/info/files/commission-white-paper-artificial-intelligence-feb2020_en.pdf
- Faraj, S., Pachidi, S., & Sayegh, K. (2018). Working and organizing in the age of the learning algorithm. *Information and Organization*, (28:1): 62-70.
- Floridi, L., Cows, J., Beltrametti, M., Chatila, R., Chazerand, P., Dignum, V., Luetge, C., Madelin, R., Pagallo, U., & Rossi, F. (2018). AI4People—An ethical framework for a good AI society: opportunities, risks, principles, and recommendations. *Minds and Machines*, (28:4): 689-707.
- Jobin, A., Ienca, M., & Vayena, E. (2019). The global landscape of AI ethics guidelines. *Nature Machine Intelligence*, (1:9): 389-399.
- Lyytinen, K., Nickerson, J. V., & King, J. L. (2020). Metahuman systems= humans+ machines that learn. *Journal of Information Technology*, <https://doi.org/10.1177/0268396220915917>
- McCarthy, J., Minsky, M. L., Rochester, N., & Shannon, C. E. (2006). A proposal for the Dartmouth summer Research Project on Artificial Intelligence, august 31, 1955. *AI magazine*, (27:4): 12-12.
- Shollo, A., Aanestad, M., Lyytinen, K., Mahrng, M., Nielsen, P. A., & Sørensen, C. (2020). *Panel 4: A Nordic Sociotechnical Perspective on Artificial Intelligence Phenomena*. Proceedings of the 28th European Conference on Information Systems (ECIS): A Virtual AIS Conference.