Team Leaders Influence on Well-Being during unforeseen Digital Change in Knowledge Work - A Research Agenda

Louise Harder Fischer, IT-University of Copenhagen, <u>Louf@itu.dk</u>
Sanna Marttila, IT-university of Copenhagen, <u>Sanma@itu.dk</u>

In Information Systems (IS) research, technology integration in work systems is often framed as a pathway to efficiency and productivity gains (Fischer & Baskerville, 2023; Sarker et al., 2019; Mumford, 2006). Such accounts typically assume a strategic trajectory shaped by managerial intent (Holmström & Magnusson, 2025; Larjovuori et al., 2018). Less attention has been directed toward outcomes such as employee well-being and engagement (Parker et al., 2022; Fischer & Baskerville, 2023). Even more overlooked is the role of team leaders in shaping these outcomes during periods of technological disruption, and there are calls for more research on their influence (Larjovuori et al., 2018; Brown & Fischer, 2024). With organizational concern for well-being on the rise (Ipsen & Edwards, 2021), IS research must expand its scope to theorize team leadership as a sociotechnical practice, ensuring that the changing nature of work evolves in ways that enhance rather than undermine employee well-being and organizational life.

We advance the argument that team leaders play a decisive role in shaping employee well-being during rapid and unplanned GenAI-related change, and that this influence operates through four sociotechnical team-leadership mechanisms (Brown & Fischer 2024): individualization, socialization, institutionalization, and leadership transformation. These mechanisms form the conceptual backbone of the paper and provide a coherent lens that connects sociotechnical theory, emerging evidence from GenAI-infused work, and leadership scholarship.

The contribution of this abstract is twofold: (1) we elaborate these four mechanisms as a sociotechnical framework for understanding how team leaders influence well-being amid GenAI-driven disruption, and (2) we develop a research agenda grounded in these mechanisms. This agenda provides theoretical direction for IS research and actionable insights for organizations supporting leaders during digital transformation. In this paper, we first theorize the role of team leaders during unplanned sociotechnical alterations of work; second, we define GenAI-specific challenges to employee well-being; and third, we articulate a research agenda derived explicitly from the four mechanisms.

2. Team leaders' role during unplanned sociotechnical changes

Unplanned sociotechnical change - such as the accelerated adoption of GenAI - places team leaders in a unique position as mediators between technological disruption and employees' daily experiences. To understand this role, we review research on leadership, well-being, and sociotechnical change, showing how this scholarship converges on the need for specific team-leadership mechanisms.

The relationship between leadership, well-being, and productivity is well documented, but key gaps remain regarding team leaders in unplanned sociotechnical change. Early sociotechnical work stresses leadership's role in designing integrated work systems (Avolio et al., 2000). Well-being has become a central concern, and supportive leadership proved critical in remote work contexts during the pandemic (Günther et al., 2022). Yet much of this scholarship stays at the organizational level, overlooking team leaders' proximal effects on morale, motivation, and resilience (Nayani et al., 2018), and rarely treating well-being as a primary outcome (Ipsen & Edwards, 2021)

Sociotechnical theory emphasizes the interplay of people and technology (Sarker et al., 2019). Traditional accounts cast change as top-managed transitions (Larjovuori et al., 2018; Holmström & Magnusson, 2025), whereas today's workplace is marked by continuous change driven by GenAI and episodic crises (Fischer & Baskerville, 2023). Team leaders, who are closest to employees, mediate organizational expectations and experience (Brown & Fischer, 2024). Fischer and Baskerville (2023) highlight mechanisms (e.g., technological socialization, -individualization) through which autonomy and adaptability emerge; however, how team leaders activate such mechanisms to support both productivity and well-being remains undertheorized. Following Sarker et al. (2019) call for identifying sociotechnical mechanisms and Brown & Fischer's (2024) studies of leadership-influence, we foreground four team-leadership mechanisms: individualization (flexibility to diverse needs), socialization (cohesion and connection), institutionalization (simple stabilizing routines), and leadership transformation (adapting one's own practice). We elaborate on the mechanisms after positioning our research agenda in the contemporary workplace.

3. AI and the contemporary workplace

The rapid integration of GenAI introduces new demands on team leaders that make the four mechanisms particularly salient. We therefore review current evidence on GenAI's cognitive, social, and experiential impacts, focusing on how these disruptions create the conditions in which the four mechanisms must operate.

GenAI's accessibility and ease of use suggest vast productivity potential, and it already permeates a wide range of roles and professions (Alavi et al., 2024). However, evidence from industry surveys indicates that GenAI adoption often increases workloads rather than reducing them and show that many employees feel less productive with AI tools, while managers lack confidence in supporting employees in the meaningful adoption of AI (DJØF, 2025). Numerous positive reports on AI's automation potential have created expectations of large efficiency gains, yet empirical studies reveal modest productivity improvements of 1–3% (Humlum & Vestergaard, 2025). In many organizations, AI tools are introduced without structured implementation strategies, leaving individuals to experiment and craft their jobs on their own (Mayer et al., 2025). This uncoordinated approach has consequences for well-being, professional identity, and work culture (Fischer et al., 2024). Cognitive and social costs are particularly notable (Parker et al., 2022). Recent studies show how younger

employees lose opportunities for informal learning and mentorship (Mayer et al., 2025), while experienced employees risk losing meaning when reduced to "AI checkers" (Crowston & Bolici, 2025). Work communities can become fragmented, dialogue may diminish, and isolation can increase when GenAI functions as a colleague (Tang et al., 2023; Fang et al., 2025). AI fatigue and cognitive offloading further undermine reflective thinking and learning (Kosmyna et al., 2025).

Ultimately, this body of research illustrates that AI integration is not merely technical but deeply sociotechnical. It reshapes cognitive demands, social interactions, and the meaning of work. These disruptions underscore why the four mechanisms provide a useful structure for understanding how leaders can mitigate adverse effects and support well-being in the following manner: Each mechanism captures a different way in which team leaders shape the unfolding of sociotechnical change.

- *Individualization* highlights the leader's ability to recognize diverse needs and tailor support as GenAI redistributes tasks unevenly.
- *Socialization* underscores the leader's role in maintaining cohesion, shared meaning, and informal learning often eroded when AI mediates interactions.
- *Institutionalization* refers to leaders' creation of simple, stabilizing routines that protect against overload and uncertainty.
- Leadership transformation reflects leaders' own adaptation, learning, and role-modelling as GenAI reshapes work.

These mechanisms form the conceptual foundation for understanding leadership in GenAI-infused workplaces and guide our integration of insights from Section 3.

4. Team-leadership mechanisms for mitigating adverse effects - a research agenda

Addressing the challenges of digital disruption requires team leadership practices that sustain both performance and well-being. In line with our framing, mechanisms are understood in two ways: first, as causal processes through which sociotechnical change unfolds (Hedström & Ylikoski, 2010; Fischer & Baskerville, 2023); and second, as organizational levers or practices that leaders can enact to shape behavior and outcomes (Yukl, 2012). Applying this dual understanding, we argue that the four mechanisms presented earlier are particularly relevant for team leaders when aiming for balanced outcomes during GenAI integration. Taken together, these mechanisms position team leaders as sociotechnical change agents who mediate between disruptive technologies and human needs. By acknowledging and intentionally leveraging these mechanisms at the micro level, leaders can achieve well-being and productivity simultaneously. This conceptualization allows us to formulate a research agenda that connects team leadership, well-being, and GenAI in a more integrated and theoretically anchored manner than existing work. Each question directly derives from one of the four mechanisms, ensuring conceptual coherence between the literature review, theorization, and agenda.

Table 1. Research Agenda - The influence of team leadership during Digital Transformation

Leadership Mechanism	Research Question	Suggested Methods
Individualization	How do team leaders tailor GenAI-related support to diverse employee needs, skills, and levels of AI readiness?	Ethnographic and qualitative case studies (interviews, observations) and researcher-guided changes to test leadership effects (interventionist design as in Parker & Grote, 2022).
Socialization	What practices enable leaders to sustain cohesion, shared meaning, and informal learning when GenAI mediates or reduces interpersonal interaction?	
Institutionalization	What stabilizing routines help maintain well-being and prevent overload during GenAI integration?	
Leadership transformation	How do leaders adapt their own practices, learning, and identity when integrating GenAI into team workflows, and how does this shape team outcomes?	Multi-site longitudinal field studies; design science research (co- developing leadership tools/frameworks as in Fischer et al., (2024)

4. Conclusion

This paper positions team leadership as a central sociotechnical component in GenAI-driven transformation. By elaborating four team-leadership mechanisms and grounding them in both classical sociotechnical change theory and contemporary evidence from GenAI-infused work, we offer an integrated framework for understanding how leaders influence employee well-being during digital disruption. The research agenda derived from these mechanisms provides clear pathways for future IS research while offering organizations actionable insights into how team leaders can sustain both performance and well-being in an era of continuous technological change.

References

- Alavi, M., Leidner, D.E. and Mousavi, R (2024) "A Knowledge Management Perspective of Generative Artificial Intelligence," *Journal of the Association for Information Systems*, 25(1), 1-12.
- Avolio BJ, Kahai S, Dodge GE (2000) E-leadership: Implications for theory, research, and practice. *Leadership Quarterly*, 11(4), 615–668.
- Brown, S. and Fischer, L.H. (2024) The Influence of Team Leaders on Well-being and Productivity During Unforeseen Digital Change. *Bus Inf Syst Eng*.
- Crowston, K., and Bolici, F. (2025). Deskilling and upskilling with AI systems. *Information Research an International Electronic Journal*, 30(iConf), 1009–1023.
- DJØF (2025) <u>www.djoef.dk/-/media/documents/a/analyser/djf-undersgelse-ai-ogledelse.pdf.</u> Accessed 10.18.2025
- Fang et al. (2025) Behaviors Shape Psychosocial Effects of Chatbot Use: A Longitudinal

Controlled Study — MIT Media Lab

- Goldkuhl, G. (2012). Pragmatism vs interpretivism in qualitative information systems research. European Journal of Information Systems, 21(2), 135–146.
- Fischer, L.H, Baskerville R (2023) Explaining sociotechnical change: An unstable equilibrium perspective. *European Journal of Information Systems* 32(4), 634–652.
- Fischer, L.H, Marttila, S., Nicolajsen, H. W., Sandbukt, S. (2024). Crafting Meaningful Generative AI-Enabled Knowledge Work. (2024). In: *ECIS 2024 Proceedings*.
- Günther, N., Hauff, S. & Gubernator, P. (2022) The joint role of HRM and leadership for teleworker well-being: an analysis during the COVID-19 pandemic. Ger J Hum Resour Manag 36(3), 353–379
- Ipsen, C. & Edwards, K. (2021). Incremental and disruptive change and wellbeing. In: Brough P et al (eds) Handbook on management and employment practices. Springer, Cham, pp 1–7
- Hedström, P., & Ylikoski, P. (2010). Causal mechanisms in the social sciences. *Annual Review of Sociology*, *36*, 49–67
- Holmström J. & Magnusson J. (2025), Navigating the organizational AI journey: The AI transformation framework, *Business Horizons*.
- Kosmyna et al. (2025) Your Brain on ChatGPT: Accumulation of Cognitive Debt when Using an AI Assistant for Essay Writing Task MIT Media Lab
- Humlum, A. & Vestergaard, E. (2025) Large Language Models, Small Labor Market Effects. *University of Chicago, Becker Friedman Institute for Economics Working Paper No. 2025-56*,
- Larjovuori R-L, Bordi L, Heikkila"-Tammi K (2018) Leadership in the digital business transformation. In: *Proceedings of the 22nd International Academic Mindtrek Conference*
- Mayer, A.S., Baygi, R.M. and Buwalda, R. Generation AI: Job Crafting by Entry-Level Professionals in the Age of Generative AI. *Bus Inf Syst Eng* (2025)
- Nayani RJ, Nielsen K, Daniels K, Donaldson-Feilder EJ, Lewis RC (2018) Out of sight and out of mind? a literature review of occupational safety and health leadership and management of distributed workers. *Work Stress* 32(2), 124–146
- Parker, S.K, and Grote, G. (2022) Automation, algorithms, and beyond: Why work design matters more than ever in a digital world. *Applied Psychology* 71 (4), 1171–1204.
- Tang, P. M., Koopman, J., Mai, K. M., De Cremer, D., Zhang, J. H., Reynders, P., Ng, C. T. S., & Chen, I-H. (2023). No person is an island: Unpacking the work and after-work consequences of interacting with artificial intelligence. *Journal of Applied Psychology*, 108(11), 1766–1789.
- Sarker, S., Chatterjee, S., Xiao, X., & Elbanna, A. (2019). The sociotechnical axis of cohesion for the IS discipline: Its historical legacy and its continued relevance. *MIS Quarterly*, 43(3)
- Yukl G (2012) Effective leadership behavior: What we know and what questions need more attention. Acad Manag Perspect 26(4). 66–85.