The impact of artificial intelligence for HR professionals: lessons learned from the AI@Work Learning Community

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Abstract

Purpose – *The purpose of this paper is to explore the implications of artificial intelligence (AI) for the world of work, with a specific focus on human resources (HR). This paper aims to examine their potential benefits, challenges and transformative effects on white-collar work.*

Design/methodology/approach – *This paper reports on a one year case study of the AI@Work Learning Community, which is an initiative we started to facilitate collaboration between scholars and practitioners to support the AI transformation.*

Findings – *The findings highlight the opportunities, challenges and competencies required for the AI transformation. Participants of the AI@Work Learning Community have identified many possibilities for AI adoption and use, but also acknowledged the difficulties in implementing them due to consequences for work, managerial implications and societal requirements. Moreover, specific knowledge, skills and competencies are needed to facilitate the AI transformation.*

Originality/value – *The authors' approach with the AI@Work Learning Community is innovative and provides not only valuable insights into the possibilities and risks of AI and its consequences for HR, but also illustrates how scholars and practitioners need to work together to achieve successful AI transformations.*

Keywords *Human resource management, Healthcare, Transformation, HR professionals, Artificial Intelligence, Learning Community*

Paper type *Case report*

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1. Introduction and motivation

The rapid developments in artificial intelligence (AI) have important consequences for the world of work. We are currently witnessing a fast rate of adoption of AI-based tools and applications, which have the potential to reshape white-collar work. Currently, most of the discussion is about Generative AI, tools that can produce text, audio and video that is seemingly novel (Feuerriegel *et al.*, 2024). At the same time, more traditional forms of AI, such as those used for pattern recognition and decision support and automation, also continue to have important implications for workers and managers.

In this paper, we examine the implications of both forms of AI and describe their implications from a human resources (HR) perspective. The use of AI promises to bring important benefits to organizations and employees. For example, AI can help workers to do their work more effectively and efficiently, and let them focus more on high-quality work. At the same time, the developments in the field of AI are going at lightning speed, which makes it difficult to stay informed about novel applications and identify the most promising ones, let alone study their consequences in a scientific manner. What makes this more challenging is the following: HR practitioners are eager to understand what works in their work context and gain evidence-based insights. Meanwhile, HR scholars are keen to

empirically explore the use of AI by HR practitioners and are looking for possibilities to collect data and study this emerging phenomenon. Progress, therefore, depends on mutual collaboration between HR practitioners and scholars. Moreover, a (research) gap persists between the literature on AI's workplace implications and the realities of its implementation in organizations, leading to questions about the opportunities, challenges and competences required for AI transformations, which will be addressed in this paper.

2. The AI@Work Learning Community

That is where the AI@Work Learning Community plays an important role. Instead of offering a conventional programme, course or workshop on AI and its consequences, the learning community (LC) is created and designed as a platform for learning, innovating and collaborating (Topsectoren, 2019; Dingyloudi and Strijbos, 2019). It enables participants to explore both the technical possibilities of AI and understand its impact on work processes and workplaces. Hereby, LCs provide important bridges between science and practice and support progress to be made on specific phenomena. These public–private collaborations help to facilitate interorganizational learning and thereby help to prepare the workforce to confront rapid societal challenges (Schipper *et al.*, 2023). For example, LCs in The Netherlands are a promising concept to facilitate lifelong learning in the energy transition (Van Rees *et al.*, 2022).

One of the most important challenges of the ongoing AI transformation is to identify the opportunities of AI while taking care of the drawbacks, and to ensure that both managers and employees have the relevant skills and competences to work with AI. What to do if you want to adopt AI technology to generate positive outcomes for both employees and employers? The adoption of new technology is certainly not a new phenomenon, even for HR practitioners. However, AI technology and AI-based applications are unique in the sense that the technology develops very rapidly, and AI tools are easily available for everyone. We currently lack the knowledge on how to facilitate the AI transformation from the HR perspective.

Therefore, in this paper, we share observations and reflections based on one year of running the *AI@Work Learning Community*. This LC consists of scholars and HR practitioners and gets together for work sessions every quarter. The LC was organized by the authors of this paper and involved around 20 participants per meeting: 50% practitioners and 50% scholars. The practitioners were all from healthcare organizations and mostly working in HR roles, while the scholars had various backgrounds (from management to computer science). The main reasons for members to be part of the LC were gaining knowledge about AI and enhancing their network and collaboration.

This paper integrates insights from the discussions and sessions organized. In the next sections, we share the most important insights gained from the LC in terms of opportunities, challenges and competencies. These insights are based on:

- A World Café format whereby participants shared their perspectives at the start of the LC; and
- a short survey asking participants to reflect on the LC after the first year of operation.

And finally, we integrate our own insights with those of the participants to discuss implications and recommendations. We provide three recommendations for practitioners and scholars for policy development. Furthermore, we describe what we learned to make an LC for AI in the workplace successful.

3. Opportunities, challenges and competences linked to the AI transformation

3.1 Direction 1: opportunities of the AI transformation

There are numerous opportunities for developing and applying AI at work, particularly in the healthcare setting, where our LC is situated. The AI transformation takes place at two

distinct levels: supporting primary work processes (such as the delivery of healthcare) and supporting the HR management of work(ers).

In the *primary work processes*, AI applications are being used or developed to improve the quality of work and reduce administrative burdens. For instance, AI-robots can assist healthcare workers by performing physical tasks. AI software also supports doctors in their clinical decision-making by aiding diagnosis and disease detection through visualization and image recognition, such as identifying cancer or epilepsy.

The AI@Work LC provides opportunities to explore these innovations through guest presentations and workshops. For example, in one of the sessions, the innovation manager of a participating hospital showcased several recent projects where AI was used for this purpose. In another session, participants engaged in an AI@WORK idea contest, which was tailored towards finding relevant use cases for AI.

In terms of *management and organization of work*, AI techniques offer promising tools for optimizing work processes by leveraging worker and patient data. For instance, hospital admission systems can make use of AI to prioritize patients or to predict patient no-shows, as one of the participating hospitals was experimenting with. In HR, AI is thought to enhance the efficiency and effectiveness of recruitment and selection, supporting long-standing thinking in the literature (Upadhyay and Khandelwal, 2018), which is urgently needed given the persistent staff shortages in health care. Applications include vacancy writing, candidate scheduling, improved matching algorithms and predictive modelling to forecast absenteeism, burnout or turnover (Chung *et al.*, 2023). Moreover, AI is expected to help improve strategic personnel planning, combine people, competencies and supporting facilities. Finally, AI holds potential for facilitating employee learning and development, such as through personalized coaching and creating virtual/augmented reality. Some of these opportunities were further explored by participants in what we called "mini projects", group assignments on which practitioners and scholars collaborated throughout a prolonged period between meetings (see textbox below).

Mini projects

The first meeting of the LC was meant to collaboratively explore the main challenges and opportunities of AI at work. During the second meeting, the members of the LC developed ideas for mini-projects around these challenges, which we defined as collaborative projects during which practitioners and scholars work together to develop something tangible. Mini-project included the development of:

- prediction models for employee turnover;
- dedicated LLMs; and
- an employee-focused HR-chatbot.

The meetings afterwards were used to share updates and lessons learned.

3.2 Direction 2: challenges of the AI transformation

Although many opportunities were identified, the AI transformation is not without important challenges (e.g. Makarius *et al.*, 2020). Many challenges were already identified by members at the start of the LC, and more emerged throughout the LC's existence. These challenges can be grouped into three categories. Firstly, in line with our own research, it is important to consider the consequences for the work (design) of health-care professionals (Tursunbayeva and Renkema, 2023). As part of this, employees were thought to lack the

skills to work with AI, and generally fear the loss of control and oversight. The workforce, particularly in healthcare, has a conservative attitude towards AI, especially the more experienced workers. Some even fear losing their job, leading to worker resistance. In contrast, some employees also have too high expectations of AI.

Secondly, there are managerial challenges, such as the lack of AI infrastructure and vision. Developing and using AI requires a lot of capacity (time, skills and investments), which is not always available in organizations. The (investment) costs are unknown, and there is a lack of leaders to start experimenting with AI. Sometimes, IT departments are not supportive as they lose control and oversight of all the AI applications used. Furthermore, a lack of a clear organizational vision is hindering adoption, while communication about the benefits of AI is seen as a challenge.

Thirdly, there are wider societal challenges related to AI, such as ethical risks. The AI transformation brings about worries about data safety, security and particularly biased algorithms, as was illustrated by Köchling and Wehner (2020). Moreover, organizations also struggle with the laws and regulations about AI. As AI is probabilistic and subjective, it is not always clear who is responsible and accountable for AI-based decisions. HR should play an important role in overcoming these challenges during the AI transformation (Fenwick *et al.*, 2024).

3.3 Direction 3: knowledge, skills, competences for AI transformation

We found that at the core of knowledge, skills and competencies is AI literacy. It is the ability to understand, interpret and critically engage with AI systems (Weritz *et al.*, 2024). In line with that, three main areas were identified on the individual, leadership and organizational levels that must be considered to establish AI literacy in the workforce:

Considering individual perspectives, expectations and experiences is essential for the successful integration of AI in the workplace. From the individual point of view, several key components contribute to the development of knowledge and skills. Crucially, overcoming resistance to change requires personal engagement and psychological readiness. Regular reflection allows individuals to assess their understanding, adapt their learning and refine how they apply AI in their daily work. Leaders should encourage employees with a clear vision on AI@Work, roadmap and mindset for change. Leaders must also embrace digital responsibility and governance, ensuring ethical practices and informed decision-making. In this context, storytelling is crucial for everyone to communicate the use of data compellingly, engage their teams and foster a culture of transparency and trust. Organizational resources: it is important to offer organizational resources and foster a continuous learning environment (Braojos *et al.*, 2024). Recognizing different terminologies and learning styles maximizes the potential of AI in the workplace. Time must be allocated for experimentation, where failure is embraced. In addition, maintaining visibility around best practices and ethical training helps address risks and biases, fostering a responsible approach to AI@work.

4. Lessons learned from the AI@Work Learning Community

Participation in the AI@Work Learning Community has significantly enriched both our personal and professional development by deepening our understanding of how AI is shaped, implemented and experienced in real work contexts. A key insight was recognizing the persistent gaps between AI theory and workplace practice. While theoretical models often assume smooth integration and clear value propositions, real-world implementations are complex, shaped by organizational dynamics, resource constraints and human factors. We learned that effective AI integration requires active participation in a broader ecosystem (including technologists, scientists, managers, frontline workers, policymakers and users), each playing a distinct yet interconnected role. This reinforced the need not only for

technical competence but also for socio-organizational awareness: understanding the social roles and responsibilities that influence how AI is adopted and used.

Participant feedback

The participants of the LC were asked to provide feedback after the first year of its existence. They have highlighted a number of valuable points, both positive and negative. Participants generally valued the opportunity to gain knowledge and learn from a diverse group of individuals, all with their own expertise, in an open, collaborative and constructive atmosphere. They appreciated the diversity of topics and perspectives.

At the flipside, participants noted challenges such as limited time, unequal contributions and difficulty in directly connecting the activities to their own daily work. Some also mentioned the time investment required and a desire for more experimentation. Nevertheless, participants were eager to learn more about the practical deployment of the AI applications they had learned about in the next phase of the LC.

In conclusion, central to this learning is the socio-technical systems theory (Appelbaum, 1997), which emphasizes that technology and social structures co-evolve. Successful AI transformation cannot rely on technical systems alone but must engage with workplace culture, ethics and decision-making processes. One of the most important realizations was the often-overlooked disconnect between management and actual implementation. Looking ahead, we see a need for future collaboration that explores this mismatch more deeply, specifically how organizational visions translate (or fail to translate) into effective AI use at the operational level in HR. Understanding these tensions will be critical to designing AI transformations that are not only innovative but also equitable, transparent and truly integrated into work ecosystems.

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References

Appelbaum, S.H. (1997), "Socio-technical systems theory: an intervention strategy for organizational development", *Management Decision*, Vol. 35 No. 6, pp. 452-463.

Braojos, J., Weritz, P. and Matute, J. (2024), "Empowering organisational commitment through digital transformation capabilities: the role of digital leadership and a continuous learning environment", *Information Systems Journal*, Vol. 34 No. 5, pp. 1466-1492.

Chung, D., Yun, J., Lee, J. and Jeon, Y. (2023), "Predictive model of employee attrition based on stacking ensemble learning", *Expert Systems with Applications*, Vol. 215.

Dingyloudi, F. and Strijbos, J.W. (2019), "Community representations in learning communities", *Scandinavian Journal of Educational Research*, Vol. 64 No. 7.

Fenwick, A., Molnar, G. and Frangos, P. (2024), "The critical role of HRM in AI-driven digital transformation: a paradigm shift to enable firms to move from AI implementation to human-centric adoption", *Discover Artificial Intelligence*, Vol. 4 No. 1, p. 34.

Feuerriegel, S., Hartmann, J., Janiesch, C. and Zschech, P. (2024), "Generative AI", *Business & Information Systems Engineering*, Vol. 66 No. 1, pp. 111-126.

Köchling, A. and Wehner, M.C. (2020), "Discriminated by an algorithm: a systematic review of discrimination and fairness by algorithmic decision-making in the context of HR recruitment and HR development", *Business Research*, Vol. 13 No. 3, pp. 795-848.

Makarius, E.E., Mukherjee, D., Fox, J.D. and Fox, A.K. (2020), "Rising with the machines: a sociotechnical framework for bringing artificial intelligence into the organization", *Journal of Business Research*, Vol. 120, pp. 262-273.

Schipper, T.M., Mennens, K., Preenen, P., Vos, M., van den Tooren, M. and Hofstra, N. (2023), "Interorganizational learning: a conceptualization of public-private learning communities", *Human Resource Development Review*, Vol. 22 No. 4, pp. 494-523.

Topsectoren (2019), "Advies meerjarig onderzoeksprogramma learning communities", available at: www.wijzijnkatapult.nl/files/downloads/Docs%20bij%20berichten/100719_PTV_LearningComm_Advies_Binnenwerk_170x240_CMYK_LR-min%20(1).pdf

Tursunbayeva, A. and Renkema, M. (2023), "Artificial intelligence in health-care: implications for the job design of healthcare professionals", *Asia Pacific Journal of Human Resources*, Vol. 61 No. 4, pp. 845-887.

Upadhyay, A.K. and Khandelwal, K. (2018), "Applying artificial intelligence: implications for recruitment", *Strategic HR Review*, Vol. 17 No. 5, pp. 255-258.

van Rees, M., Disberg-van Geloven, M., Kornet, A., Corporaal, S. and Endedijk, M. (2022), "A first attempt in shaping learning communities for the energy transition", *CLIMA*.

Weritz, P., Wache, H. and Hönigsberg, S. (2024), "How digital readiness relates to the intention to use generative AI in workplace service systems", *AMCIS*.

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