

The impact of AI on HR's process landscape and strategic orientation

Adrian Schadl, Catholic University Eichstätt-Ingolstadt

Contact address:

Auf der Schanz 49, 85049 Ingolstadt, Germany

Email:

adrian.schadl@ku.de

Lena Wasem, Catholic University Eichstätt-Ingolstadt

Contact address:

Auf der Schanz 49, 85049 Ingolstadt, Germany

Email:

[lena.wasem@stud.ku.de](mailto:lana.wasem@stud.ku.de)

The impact of AI on HR's process landscape and strategic orientation

With rapid advancements in artificial intelligence (AI), the technology is becoming increasingly attractive for various organizational applications. Recent research highlights AI's potential for integration into organizational processes, automating tasks, and assisting employees by enhancing their decision-making. Particularly in corporate areas like Human Resource Management (HRM), AI has the potential to reshape core HR activities and redefine roles and responsibilities. However, the intersection of AI and evolving competencies required in HR remain unexplored. This study adopts a multiple-case study approach to explore the impact of AI integration on skill changes across key HR functions through expert interviews. We expect the results to reveal that AI integration necessitates reskilling and upskilling of HR professionals to effectively engage in human-AI collaboration and leverage the full potential of AI in their roles.

Human Resource Management Track

Word count: 1772

Research Relevance

Technological transformation has historically been closely linked to continuous learning, re-skilling, and upskilling across all sectors of society. During the First Industrial Revolution in the 18th and 19th centuries, a period of profound technological upheaval, mechanized production systems, particularly the steam engine and the factory system, fundamentally reshaped the world of work. Traditional manual labor was increasingly replaced or supplemented by machines. As a result, the demands on the workforce shifted significantly: technical and mechanical knowledge, such as the operation, maintenance, and repair of complex machinery, became indispensable. Those unable or unwilling to adapt to these new requirements risked being left behind in a rapidly changing labor market (Kohnová and Salajová, 2019).

Today, the world is undergoing yet another deep transformation, referred to as the Fourth Industrial Revolution (Kohnová and Salajová, 2019). This new era is primarily driven by artificial intelligence (AI), increased digital connectivity, and the widespread integration of intelligent systems into economic and societal processes. According to the World Economic Forum, approximately 39 percent of the core skills currently in demand in the labor market are expected to change fundamentally within the next five years. In growing demand are competencies in AI and Big Data, such as data analysis, machine learning, and algorithmic literacy, as well as a broad-based technological education (World Economic Forum, 2025).

One sector that is particularly affected by this transformation is human resources (HR). AI technologies are increasingly being implemented in HR processes, especially in recruitment and selection. AI-supported systems are already being used in the initial screening phase of job applicants. These systems analyze resumes based on predefined criteria, thereby enabling a more efficient and data-driven preselection process. As a consequence, the role of recruiters is changing, from manually reviewing all applications to making final decisions based on AI-generated recommendations (Raisch and Krakowski, 2021).

To remain competitive in the face of these developments, organizations are increasingly reliant on harnessing the potential of collaboration between humans and artificial intelligence. A key prerequisite for this is the successful integration of AI into existing work processes, such as in personnel management (Krakowski, Luger and Raisch, 2023). Crucial to this integration is the targeted closing of skill gaps that emerge in response to the rapid pace of technological change (World Economic Forum, 2025).

Research Gap

The integration of AI has been extensively studied from an organizational perspective (Hendriksen, 2023). It is well established that AI brings about profound transformations in organizational processes, particularly within human resource management (HRM), and that its implementation requires the development of new organizational capabilities (Raisch and Krakowski, 2021; Einola and Khoreva, 2023; World Economic Forum, 2025). However, the implications of AI integration for individual capability development have received comparatively little attention. In particular, there is a significant research gap regarding the specific changes in skill requirements within the HR domain resulting from the adoption of AI technologies.

This paper investigates the skill transformations induced by AI across decision-making processes in core HR functions, such as acquisition, motivation, development, and placement. The analysis focuses on identifying the individual capabilities required to facilitate effective human-AI collaboration within these key HR areas. Building on this analysis, the paper develops a conceptual model of critical HR competencies needed in AI-augmented work environments.

Theoretical Framework & Literature Overview

AI can be understood as a technology capable of correctly interpreting external data, learning from it, and applying these learnings to achieve specific goals and tasks (Spring, Faulconbridge and Sarwar, 2022). The technology enhances human employees' work by either augmenting their decision-making (Faulconbridge, Sarwar and Spring, 2023) or enabling the automation of entire tasks (Hendriksen, 2023). The concept of humans and AI systems working together is also referred to AI augmentation, describing the collaboration between humans and AI to jointly accomplish goals (Raisch and Krakowski, 2021; Shao *et al.*, 2024). Studies examining this collaboration show that AI can take over routine tasks, reducing manual activities and thus increasing process efficiency. This allows employees to focus on more complex and value-adding activities (Spring, Faulconbridge and Sarwar, 2022; Hendriksen, 2023; Konsynski, Kathuria and Karhade, 2024)

The interplay of humans and AI is becoming increasingly prevalent in HRM, a central corporate function with operational and strategic tasks (Dulebohn and Johnson, 2013). Key HR functions include acquisition, motivation, development, and placement (Kaiser and Ringlsetter, 2008). By automating subtasks and providing decision-making support, AI enables significant efficiency gains and strategic advantages in these functions (Nosratabadi *et al.*, 2022). One example is the use of AI in the acquisition phase: while AI can handle the initial screening of applicants, the recruiter can focus on the final selection of candidates. By automating certain tasks, AI enables HR professionals to allocate more time and resources to strategic initiatives and exploring new business opportunities (Raisch and Krakowski, 2021).

The integration of AI into key HR functions fundamentally reshapes the design of decision-making processes. Subtasks can be completely automated by AI, augmented with AI assistance, or performed solely by humans. While automation seeks to delegate tasks entirely to AI systems, augmentation assists human decision-makers by providing intelligent systems that deliver information and enhance analytical processes (Benbya, Pachidi and Jarvenpaa, 2021). Konsynski, Kathuria and Karhade (2024) propose that organizations integrate human and intelligent AI-system actors to achieve goals through interconnected decision-making processes. These decision journeys can be broken down into elements, while at each step, organizations need to decide whether the tasks should be assigned to human or AI-system actors. Figure 1 illustrates the decision journeys for key HR functions.

Introducing AI applications changes existing processes and creates new demands on organizations, work structures and professionals (Faulconbridge, Sarwar and Spring, 2023). It shifts the locus of action, control, and decision-making from human employees to AI systems (Queiroz, Anand and Baird, 2024). As a result, human workers are increasingly tasked with overseeing, managing, and troubleshooting these systems, leading to expanded roles and responsibilities (Coombs *et al.*, 2020). As AI technology transforms traditional work processes from planning-oriented processes into explorative and complex processes (Hopf *et al.*, 2023; Vial *et al.*, 2023), workers are evolving from specialists into all-rounders who have to master various skills instead of specific tasks (Hopf *et al.*, 2023). While domain-specific knowledge remains a fundamental prerequisite for making informed decisions in the context of AI, the integration of AI into business processes requires a broader set of complementary skills. These can be categorized into five core categories: technological, cognitive, social, self-efficacy, and ethical-regulatory capabilities (Tong *et al.*, 2021; Jaiswal, Arun and Varma, 2022; Maragno *et al.*, 2023; Hermann and Puntoni, 2025; Koponen *et al.*, 2025).

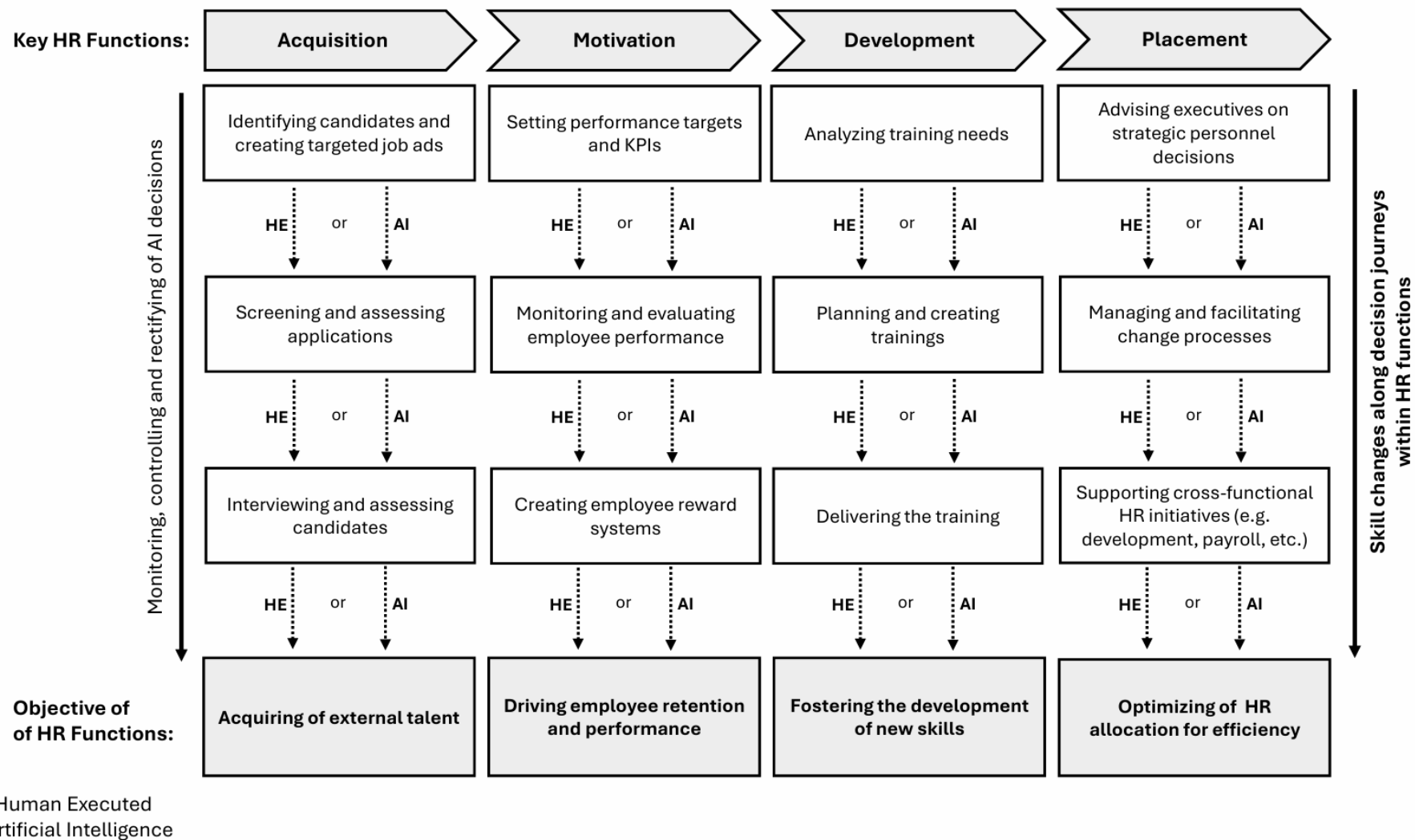


Figure 1 HR Decision Journey (own figure based on (Kaiser and Ringlstetter, 2008; Coombs et al., 2020; Konsynski, Kathuria and Karhade, 2024)

Methodology

To explore the skill changes along the HR decision journeys, this paper builds on a qualitative approach. To gain detailed insights into AI-influenced HR practices across various HR functions, we conduct a case study using a holistic multiple-case design following (Yin, 2017). Each of the four key HR functions defined by Kaiser and Ringlstetter (2008) (i.e., acquisition, motivation, development, placement) serves as a distinct context in which a separate case study is carried out. This perspective on skill changes along the decision-making journey of HR professionals in context of various HR key functions enables us to evaluate how these professionals' skills are changing and what competencies are required for a successful AI integration into HR processes.

Data collection follows a purposive sampling strategy that focuses on various HR experts. For each of the four HR functions, semi-structured interviews will be conducted with professionals specializing in these areas (i.e. recruiting, training & development, compensation & rewards, HR business partner). To reach data saturation, we conduct five interviews per function and case to ensure a representative sample. Currently, the study is in the process of collecting these interviews. After conducting the interviews, the data analysis follows a grounded theory approach (Gioia, Corley and Hamilton, 2013), allowing for new insights. The data analysis will be carried out using MAXQDA.

Expected Contribution

While existing literature primarily focuses on the integration of AI in organizational processes (Hendriksen, 2023), this study connects AI integration to the implications of skill transformations in HR.

From a theoretical standpoint, we anticipate that AI will profoundly influence the HR decision-making process. As a result, HR professionals will be required to take on new responsibilities, including monitoring and evaluating AI-driven decisions. In addition, they must upgrade their skill sets to effectively collaborate with AI systems and critically assess AI-generated outcomes. This paper addresses the limited body of research exploring the intersection of AI and the evolving competencies required in HR. Specifically, it proposes a conceptual model outlining the key skills necessary for HR professionals to thrive in AI-augmented environments.

In practice, this study will guide managers in effectively integrating AI into HR functions to optimize processes, enhance HRM efficiency, and ultimately improve organizational competitiveness through strategic upskilling and reskilling of employees.

Overall, this study significantly contributes to the discussion of AI augmentation in an organizational setting, providing valuable findings on how AI shapes the nature of work.

Comments on expected development

Before the presentation at BAM 2025, we plan to enhance the paper by:

- Continuing data collection to build a robust database for the conference.
- Analyzing the interviews and providing clear insights into the first-, second-, and third-order findings.
- Expanding the implications by exploring how key HR functions evolve and incorporating feedback on changing skill requirements within the corporate function of HR.

We are confident that these enhancements to the paper will provide a strong foundation for presenting and discussing our study at the conference.

Reference list

- Benbya, H., Pachidi, S. and Jarvenpaa, S.L. (2021) 'Special Issue Editorial: Artificial Intelligence in Organizations: Implications for Information Systems Research', *Journal of the Association for Information Systems*, 22(2), pp. 281–303. doi: 10.17705/1jais.00662
- Coombs, C. *et al.* (2020) 'The strategic impacts of Intelligent Automation for knowledge and service work: An interdisciplinary review', *The Journal of Strategic Information Systems*, 29(4), p. 101600. doi: 10.1016/j.jsis.2020.101600
- Dulebohn, J.H. and Johnson, R.D. (2013) 'Human resource metrics and decision support: A classification framework', *Human Resource Management Review*, 23(1), pp. 71–83. doi: 10.1016/j.hrmr.2012.06.005
- Einola, K. and Khoreva, V. (2023) 'Best friend or broken tool? Exploring the co-existence of humans and artificial intelligence in the workplace ecosystem', *Human Resource Management*, 62(1), pp. 117–135. doi: 10.1002/hrm.22147
- Faulconbridge, J., Sarwar, A. and Spring, M. (2023) 'How Professionals Adapt to Artificial Intelligence: The Role of Intertwined Boundary Work', *Journal of Management Studies*. doi: 10.1111/joms.12936
- Gioia, D.A., Corley, K.G. and Hamilton, A.L. (2013) 'Seeking Qualitative Rigor in Inductive Research', *Organizational Research Methods*, 16(1), pp. 15–31. doi: 10.1177/1094428112452151
- Hendriksen, C. (2023) 'Artificial intelligence for supply chain management: Disruptive innovation or innovative disruption?' *Journal of Supply Chain Management*, 59(3), pp. 65–76. doi: 10.1111/jscm.12304
- Hopf, K. *et al.* (2023) 'Organizational Implementation of AI: Craft and Mechanical Work', *California Management Review*, 66(1), pp. 23–47. doi: 10.1177/00081256231197445
- Kaiser, S. and Ringlstetter, M.J. (2008) *Humanressourcen-Management*. Berlin/Boston: De Gruyter Oldenbourg. Available at: <https://www.degruyterbrill.com/isbn/9783486844702>.
- Kohnová, L. and Salajová, N. (2019) 'Industrial Revolutions and their impact on managerial practice: Learning from the past', *Problems and Perspectives in Management*, 17(2), pp. 462–478. doi: 10.21511/ppm.17(2).2019.36
- Konsynski, B.R., Kathuria, A. and Karhade, P.P. (2024) 'Cognitive Reapportionment and the Art of Letting Go: A Theoretical Framework for the Allocation of Decision Rights', *Journal of Management Information Systems*, 41(2), pp. 328–340. doi: 10.1080/07421222.2024.2340830
- Krakowski, S., Luger, J. and Raisch, S. (2023) 'Artificial intelligence and the changing sources of competitive advantage', *Strategic Management Journal*, 44(6), pp. 1425–1452. doi: 10.1002/smj.3387
- Nosratabadi, S. *et al.* (2022) 'Artificial Intelligence Models and Employee Lifecycle Management: A Systematic Literature Review', *Organizacija*, 55(3), pp. 181–198. doi: 10.2478/orga-2022-0012
- Pereira, V. *et al.* (2023) 'A systematic literature review on the impact of artificial intelligence on workplace outcomes: A multi-process perspective', *Human Resource Management Review*, 33(1), p. 100857. doi: 10.1016/j.hrmr.2021.100857

- Queiroz, M., Anand, A. and Baird, A. (2024) 'Manager Appraisal of Artificial Intelligence Investments', *Journal of Management Information Systems*, 41(3), pp. 682–707.
doi: 10.1080/07421222.2024.2376383
- Raisch, S. and Krakowski, S. (2021) 'Artificial Intelligence and Management: The Automation–Augmentation Paradox', *Academy of Management Review*, 46(1), pp. 192–210.
doi: 10.5465/amr.2018.0072
- Shao, Y. *et al.* (2024) 'Using Augmentation-Based AI Tool at Work: A Daily Investigation of Learning-Based Benefit and Challenge', *Journal of Management*.
doi: 10.1177/01492063241266503
- Spring, M., Faulconbridge, J. and Sarwar, A. (2022) 'How information technology automates and augments processes: Insights from Artificial-Intelligence-based systems in professional service operations', *Journal of Operations Management*, 68(6-7), pp. 592–618.
doi: 10.1002/joom.1215
- Vial, G. *et al.* (2023) 'Managing artificial intelligence projects: Key insights from an AI consulting firm', *Information Systems Journal*, 33(3), pp. 669–691. doi: 10.1111/isj.12420
- World Economic Forum (2025) *Future of Jobs Report 2025*.
- Yin, R.K. (2017) *Case study research and applications: Design and Methods*: SAGE Publications.