Leadership in Transition: Challenges and Opportunities through AI

White Paper

Stowasser, S. & Neuburger, R. et al.
Working Group Future of Work
and Human-Machine Interaction

Executive Summary

Artificial intelligence (AI) is changing the world of work and leading to a dynamic redesign of the distribution of labour between humans and technology in companies. This change places new demands on work and organizational design in the company, and thus on leadership and – very specifically – on managers. AI systems can support them in the performance of their tasks, especially in recurring activities and routines. On the one hand, this allows more time for personnel-oriented or innovation-related leadership, but on the other hand, brings with it a wide range of technical, professional and personal requirements. In future, managers will play a central role in successfully shaping the AI transformation process in their companies and, as part of their duty of care, in particular in enabling a human design of the AI systems with and for the employees. In doing so, they should always preserve and promote the social and communicative dimension of leadership between employees and managers.

Leadership requirements in the AI era

By using digital technologies, managers are increasingly immersed in the role of a mediator, vis-à-vis employees, the digital (AI) systems, the company and themselves. This increasingly changes their role as a leader to a mediating 'translator', role model and coach and calls for a stronger participative leadership style. In addition to new ways of working, the use of AI systems can lead to structural and organisational changes. AI systems can improve the efficiency of a company, while employees with their strengths primarily contribute to maintaining and perpetuating the innovative capacity of a company. Shaping

this collaborative cooperation between humans and AI systems will become an important element of leadership in the future.

Due to the use of learning systems, many central values such as data protection, transparency or fairness in leadership will take on a new meaning for employees: hence, the introduction of AI in leadership may initially be accompanied by scepticism. For a successful cooperation it therefore will be crucial to promote the employees' trust in and acceptance of the technology and the leadership. This requires the early involvement of employees and interest groups in the planning and design of AI systems. Successful AI change management in companies therefore requires suitable leadership and corporate culture based on participation, openness and transparency.

Support of AI systems in leadership tasks

Leadership as a task covers a broad spectrum of detailed tasks and contents, in the accomplishment of which AI systems can make different contributions as 'supporting actors'. The potential of AI in the context of leadership tasks lies the high availability of data, the analysis possibilities of this data and the independent (partial) control of processes. The specific effects that the use of learning systems as part of the leadership process can have on different leadership tasks can be presented by four task clusters: strategic management, organisational management, human resource management and self-management.

Different cluster of management tasks

- strategic management
- organisational management
- human resource management
- self-management

- ■ **Strategic management**
  Strategic management means developing an economically viable future perspective for the company to strengthen its competitiveness and to inspire and gain employees for this purpose. This task is complex and includes innovation-oriented leadership, for example developing visions, promoting innovations and initiating creative processes that involve everyone in the company. This task can be supported by the appropriate use of AI systems, especially when it comes to mastering data complexity: during the analysis of customer profiles, during the determination and verifica-

tion of key figures for the company's productivity or during evaluation of the market shares achieved. In all of these activities, AI systems can provide managers with decision-making tools for adjusting and fine-tuning operational measures by quickly evaluating relevant data sets in conjunction with patterns derived from them. In contrast, when it comes to setting strategic goals, recognising and mastering contextual complexity, and linking to tacit knowledge and experience to gain innovation, the human – the manager – is superior.

■ Organisational management

Organisational management tasks include the planning and design of work processes and task distribution, such as staff scheduling or team composition. AI systems can support many of these management tasks, as they are standardised and structured. This highlights two aspects that need to be considered by managers: the use of AI systems requires a clear analysis of the tasks and processes in which humans or AI systems have their respective strengths, and, the planning and initiation of the corresponding change process requires collaboration with the employees and their interest groups. This also means taking fears and concerns into account from the beginning and training employees accordingly. In the interaction process between employees and AI systems, one of the main tasks of management will be to link the respective strengths in a task-oriented manner. For this, it is necessary that employees do not align their actions and activities with the AI systems, but always have a sufficient degree of agency and situation control.

■ Human resource management

The changed distribution of labour between humans and AI systems increases the potential for personnel management, but represent new challenges, too. If classic instruction and control tasks shift to being controlled by AI systems, motivation, appreciation, empowerment and coaching will be among the central management tasks so that employees can develop their creative potential. At the same time, due to their ability to draw conclusions about employees from data, AI systems present managers and companies with a design challenge within the framework of their duty of care: it is necessary to make the potential of AI usable and at the same time realise a safe and protected working environment. In particular, all relevant national and European data protection directives must be complied with. In the context of designing the use of AI in management, it is also necessary to consider the extensive co-determination rights of the social partners with regard to the use of the systems.

■ Self-management

A changed distribution of labour between humans and AI systems, and thus also in interaction, demands from managers as well as increasingly from employees the ability to act autonomously and self-determined in certain situations. This requires competences in self-management to be able to handle the processes. The development of these competences can be specifically promoted through appropriate organisational and technical structures in the company, through empowerment on the part of managers and through the appropriate use of AI. Managers must ensure that self-determined and autonomous action by employees does not lead to an increased workload, health issues or psychological stress. Thus, the elimination of

standardised routine tasks through the adoption of AI systems should lead to more space for richer activities, striving for a balance between creative, richer work on the one hand and protection against successive overload due to a lack of positive routines on the other.

Outlook

AI and leadership can complement each other well and learning systems can make an important contribution to modern, human-centred leadership. Learning systems can become a supporting and relieving "actor" and thus an integral part of the leadership process. For this, the necessary framework (in the companies) must be created so that the full potential of AI systems can also be used by managers: more time for employee-related or innovation-related leadership, relief from routine tasks and faster provision of information. The prerequisite is to link the strengths of humans with the technologically determined advantages of AI in a goal-oriented and participatory manner. This also includes the early recognition of risks in the use of AI systems to be able to counteract them: demotivation and excessive demands on managers, demotivation of employees, "poor" data quality.

The decisive factor for the use of AI and leadership is to continuously model the interaction between humans and the AI system in the best possible way, to record undesirable effects of the AI use and to reduce them through adjustments to the system or the work design. Other design options include, while preserving the duty of care of managers, building up the necessary AI competences of employees and managers themselves, exemplifying a feedback culture that integrates the perspectives of employees and their interest groups with openness, exploring the technical possibilities from a criticality point of view, and a transparent and participatory corporate culture.

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