Research Article

Artificial Intelligence and Organizational Change

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Artificial Intelligence will establish a new culture for organizations and society as it alters the intricacies of power dynamics among various groups, as discussed by Meyes (2015). These groups comprise the newly dominant group (AI), the marginalized ones (those displaced by AI), and those in between (remaining groups influenced by AI). In the context of game theory, AI acts as the principal, following a path of creative destruction to determine subsequent developments, while agents seek optimal organizational performance. This leads to the so-called "Management of Meaning." Conversely, AI culture emerges from merging technology with human capabilities, allowing humans and technology to integrate seamlessly: Humans thinking through machines or seeing themselves reflected in machines.

Organizational Culture

Organizational culture defines the manner in which activities are conducted within an organization, as well as the beliefs and values of its members. It provides a framework for maintaining stability. The influence of AI on this matter leans towards making symbolism and values the primary drivers of organizational changes in both learning and power interactions. Given a set of rules that blend cognitive skills, linguistic abilities, and quality data, AI becomes the driving force for creating a new organizational environment that embraces human diversity. Thus, the emphasis on organizational change is not just about interpersonal dynamics, but also the relationships between humans and machines (AI) within organizations that champion diversity. This is especially pertinent when considering the rising involvement of women in management roles. Current data indicates that 12% of women in organizations use AI regularly, compared to only 8% of men. Additionally, 46% of women

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have experimented with Generative Artificial Intelligence tools at least once, while only 37% of men have done the same, as noted by McKinsey (2023).

Furthermore, the adoption of Generative AI introduces new management challenges. A recent survey by McKinsey & Company revealed that 34% of organizations immersed in the Generative AI framework view workforce/labor displacement as a risk. Similarly, 31% identify concerns related to equity and fairness (McKinsey, 2023).

The Speed of Technological Transformation

The challenge doesn't solely lie in organizational transformation, change, and its associated values. The rapidity of technological advancement introduces added pressure for an expedited pace of adaptation. Historically, while 19th-century organizations took thirty years to adapt to new technologies, the 20th century saw this duration reduced to twenty years. Presently, the window for organizational adjustments has shrunk to no more than ten years (DW Forum, 2023). The time frame to align organizations with new AI technologies has thus become more compressed, leading to increased transformational costs to harness its benefits before competitors. Some leading organizations, focusing on the value derived from Generative AI, have already reported up to 20% of their EBIT being attributed to it (McKinsey, 2023).

This trend forecasts a new paradigm concerning organizational and human performance, emphasizing innovation, creativity, strategic thinking, and forward-looking analysis. These elements will be intertwined with evolving workplace values centered on diversity, inclusion, and emotional intelligence.

Management of Meaning

The emerging organizational framework for management signifies a power shift from production operations and services – many of which will be automated – towards the human intellect. The dynamics of power now involve increasingly intricate symbolic variables of which managers must be cognizant. The conventional notion of expertise doesn't seem well-equipped to handle unpredictable situations, such as those presented by artificial intelligence (Bradshaw & Boonstra, 2008).

The "Management of Meaning" concept (Pettigrew, 1977) has evolved to become the guiding force behind symbols like ideas, decisions, values, creativity, innovation, and expectations, bestowing upon

them legitimacy. The epicenter of power now rests with those possessing the knowledge and foresight for the process of change, grounded in data-driven efficiency. In this context, Artificial Intelligence emerges as a transformative agent, offering invaluable support for organizational adaptation. The growth of technologies like Generative AI is rapid. For instance, by May 2023, Anthropic's Generative AI, Claude (www.anthropic.com), could process 75,000 words in 60 seconds, a significant leap from the roughly 6,800 words it could handle at its inception in March of the same year (McKinsey, 2023).

According to McKinsey's projections on AI deployment and its widening scope, technological performance driven by AI tools is anticipated to match the performance of top-quartile jobs (which encompass creativity, logical reasoning, problem-solving, multi-faceted coordination, and social and emotional discernment) sooner than previously estimated, by 2027 (McKinsey, 2023). The percentage of work hours that can be automated is set to increase from 50% to a range of 60-70%. While this shift implies potential job losses, a more significant implication is the redefinition of jobs: transitioning from their current functional framework to roles with a greater emphasis on innovation.

Given this backdrop, it's not a far-fetched assertion to state that artificial intelligence has, in some manner, already accelerated organizational change. It positions behavioral sciences as integral to management decisions, aiming to achieve efficiency within this evolving technological landscape.

Learning Organization and AI

So, how does AI integrate into the learning organization (LO) model? At a glance, within the realm of LOs, AI predominantly aligns with strategic thinking. P. Senge (1990) highlighted the "LO" as pivotal for systemic thinking, yet there was a lack of elucidation on how it fosters a systemic perspective, promoting learning as an interdisciplinary experience (Flood & Romm, 2018). Beyond defining individual "disciplines," the relationships between these domains, essential for holistic and integrated learning geared towards competitiveness, remain ambiguous. Such a limited systemic viewpoint failed to comprehensively tackle the dynamics of power within organizations or their societal implications where prevailing biases (such as discrimination and exclusion) could seamlessly manifest within corporate structures (Flood et al, 2018). In this context, the AI paradigm risks creating a disparity: a chasm between the traditional rates of change and adaptation, and the speed and nature demanded by the future.

However, artificial intelligence challenges and broadens this perspective, offering a more expansive systemic viewpoint that encompasses networks and emotional considerations (Vince & Saleem, 2004).

Consequently, organizations evolve into what can be termed "Three Loop Learning" (TLL) entities. In these TLL entities, learning is intrinsically tied to power dynamics, objectives, values, and emotions, culminating in a forward-looking vision of an organization post-AI integration. It suggests that AI nudges organizations towards strategic deliberation, with an acknowledgment of "lessons learned" from patterns of creative destruction.

Therefore, organizations need to cultivate the skill of "learning how to learn" (G. Barbat, P. Boigey, I. Jehan, 2011; Flood et al., 2018; Aston, 2020). This transforms the concept of a learning organization from a linear management process, which mistakenly presumes current events to be uncorrelated with a predictable pattern, into a circular network management process (Wulf, 2018). Contrarily, AI amplifies the correlations between events, making them harder to anticipate and placing considerable strain on organizational structures and individual behaviors until they acquire metacognitive abilities. The "loop learning process" represents just one of the numerous loops induced by AI at different organizational change phases. This nonlinear progression fosters the creation and co-creation of innovative flows, laying the foundation for strategic thought and learning structures, which in turn spur innovation at both management and core value levels.

Conclusions

Generative AI introduces fresh challenges for management. In organizations that have adopted Generative AI, 34% perceive workforce or labor displacement as a risk, while 31% are concerned about equity and fairness. As a result, the organizational alterations ushered in by AI will manifest within a framework of diverse learning loops, prompting organizations to master the art of self-learning.

In this new paradigm, there's a discernible power shift from production operations and services, many of which will be automated, to the realm of human cognition. This altered power dynamic is underscored by intricate symbolic variables that managers must be attuned to. Nonetheless, the challenges aren't solely rooted in organizational transformations or shifts in objectives and values. The rapid pace of technological advancement exerts extra pressure, necessitating a swifter adaptation rate than initially anticipated, a reality that management must grapple with.

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