

# Conceptualizing effects of AI in the Changing Nature of HR Work

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## Abstract

Despite the growing interest and understanding on these deep effects of Artificial Intelligence (AI) within organizations there has been little focus on the impact of AI specifically on Human Resource Management (HR) practice. Likewise, there is little attention to the strategic role of the HR function in driving and enhancing organizational readiness for AI or an organization's ability to effectively deploy AI. This paper addresses this gap and focuses on two elements: first, we highlight the disruption caused by AI in HR functioning and operation; and second, we conceptualize the emergent priorities of HR in enhancing organizational readiness for AI. Based on this conceptual background we then review and analyze examples and mini-case studies to suggest two emergent roles for the HR function in AI-enabled work contexts: Digital Work Design (DWD) and Structural Digital Work (SDW). We then propose a *HR for AI* framework that captures the emergent priorities of the HR function. We contend that by embracing the *HR for AI* perspective, the HR function can contribute strategically to maximizing the value of AI integration. This paper is intended to be a conceptual review and an agenda setting paper on HR for AI.

## Role and evolving nature of HRM in organizations

The HR function is uniquely placed to enable organizations, leaders, individuals, and society to adapt to technological changes (Palmer, et al., 2017). However, it needs to adapt and support organizations' competitive advantage (Sekhar et al., 2016) evolve policies and practices in response to changing contexts internally and externally (Ulrich, 1997; Xiu et.al., 2017). One of the key functions of SHRM therefore is to continuously align HR policies and practices with the objectives and strategies of the organization (Paauwe & Boon, 2018). Strategic HRM (SHRM) is a key function in organizations because it “*defines how the organization's goals will be achieved through people by means of HR strategies and integrated HR policies and practices*” (Armstrong, 2006. p.33).

Some of the most central aspects of the practice of HRM are tied to what work is in organizations, and how it is done, it is therefore not surprising that HR scholarship has a history of focusing on work, and workers, and the workplace (Okhuysen et al., 2013). HR scholars have recognized that AI can disrupt HR practice (Minbaeva, 2021). However most of extant HR literature on AI is preoccupied with its application at a functional level (Arslan, et al, 2021) or focuses mainly on *AI for HR* activities. This places emphasis on AI in terms of technological affordances. We argue that concentrating solely on AI from an affordances perspective is problematic because it treats AI like other technologies focused on efficiencies, and only deals with first order effects at the level of digitalization, so misses deeper changes to how HR work is done and how HR is shaping the nature of organizing (Baptista et al, 2020). To address this gap, we investigate the following questions: How does AI disrupt HR work? What is the role of HR function in the adoption of AI?

AI induces fundamental changes in the domain of work, for example on who performs the work, how work is structured and performed, and where it is performed (Davenport, 2018). Thus, AI causes disruption within organizations at three levels: work, workforce, and workplaces (Schwab,

Table 1: Examples of Impact of AI-integration and Emerging HR Activities

Example of AI at work	Level of Impact	Emerging HR activities
Robotic Process automation (RPA): Poppy the insurance robot checks and completes regular insurance claims, processing structured premiums at an astounding pace and with exceptional accuracy (Wilcocks, et al., 2015)	<p><b>Work:</b> Shift in task distribution: RPA perform repetitive tasks and humans deal with exceptions (7% of tasks)</p> <p><b>Workforce:</b> Alteration of jobs of insurance brokers and adjustors; Upskilling of insurance brokers and cross-skilling for adjustors; Redefining occupational boundaries of insurance brokers and adjustors</p> <p><b>Workplace:</b> Distributed work: maintenance and continuous improvement tasks moved offshore</p>	<p>- <b>Support functional teams to re-imagine work of insurance brokers:</b> HR works with insurance brokers and functional teams to <b>re-configure task allocation</b> to allocate codifiable tasks (checking for errors, processing structured claims) to Poppy while humans deal with judgement tasks and the continuous improvement, and training of Poppy</p> <p>- <b>Re-think workforce strategy:</b> Upskilling insurance brokers to deal with exceptional cases and customer facing roles</p> <p>- <b>Re-design workplace:</b> create trust in RPAs and assurance of no job loss; encourage train Poppy; highlight strategic payoffs; inspire continuous learning and organizational acceptance</p>
Algorithms scanning medical images with expert level accuracy (Faraj, et al., 2018)	<p><b>Work:</b> Shift in tasks of radiologists by relinquishing scanning of medical images to focus on complex interpretation and judgement</p> <p><b>Workforce:</b> managing job losses with fewer radiologists required. Change in radiologist tasks and adding new tasks to emergency doctors. New job creation: expert radiologists become trainers of algorithms to read images with expert accuracy. Skills erosion due to deskilling of image reading skills; Redefining occupational boundaries</p> <p><b>Workplace:</b> Image reading tasks distributed across teams or even physical space</p>	<p>- Work with medical teams to <b>re-imagine radiologist work:</b> re-design radiologist jobs by reducing image reading tasks; add new or expert level tasks; add image report interpretation to role of emergency doctors;</p> <p>- Work with radiology and emergency teams to <b>re-configure task allocation</b> by re-distributing image reading tasks across medical teams and AI; re-think work-flow across medical teams</p> <p>- <b>Re-thinking workforce</b> needs by creating opportunities for cross-skilling of emergency doctors and upskilling of expert radiologists to become trainers of algorithms</p> <p>- <b>Redesign workplace:</b> revisit structure of medical teams; prepare radiologists and emergency doctors to deal with change; engage with fears and resistance of doctors to build trust</p>

2019), all of which are prime domains of HR work. Table 1 shows specific examples of impact of AI on HR. The table also shows the encroachment of AI into the human domain of HR work, for example AI is used to perform repetitive and labor-intensive tasks, however it is also performing higher-order cognitive tasks that would usually be require management discretion (Huang et al., 2019). This changes the roles and tasks that remain for humans, and reorganizes occupational boundaries and workflow. It also redefines human competencies in demand of AI-enabled workplaces (Daugherty & Wilson, 2018). In addition, algorithms also allocate tasks and roles to humans (Tarafadar et al., 2022) and algorithmic management alters task allocation (Parent-Rocheleau, X., & Parker, 2022). This means that the HR function should be central to reconsidering how work is distributed between intelligent systems and humans, and how humans and machines

collaborate in work processes; and what will be the implications of the collaboration for existing HR systems such as those that support the hiring, performance management, and skill and competencies development (Davenport, 2018).

The table shows that AI will reduce the number and types of jobs within organizations and alter existing jobs, but also the creation of a new jobs too (Daugherty & Wilson, 2018). This means that HR will need to manage the reduction of labor, skill redundancy and skill erosion, while also supporting reskilling, upskilling, and cross-skilling (Frey & Osborne, 2017; Davenport & Kirby, 2016). Further HR needs to support changes in the variety of tasks humans perform (Farah & Hyeusmna, 2015) and manage the increase in the cognitive load of humans (Chakraborti et al., 2017). Furthermore, these changes redefine expertise and professional identities, cause tensions, and threaten the agency of humans (Faraj et al., 2018). However, AI also affects where work happens (physical space), and how it happens (distribution of work beyond organizational boundaries) (Davenport & Kirby, 2016). AI adoption, forces organizations to rethink workflows, organizational structure, as well as compensation or reward systems (Spagnoletto, AbdulJabbar, & Jaliha, 2019). AI enables monitoring and management of human work, however, this could lead to dehumanization of work, and a decrease in sensitivity and empathy in dealing with workers (Marszałek-Kotzur, 2022). As a result, workers are more likely to experience fear, insecurity, and erosion of trust, which in turn are predicted to affect employee engagement, motivation, and job satisfaction (Skrbiš, & Laughland-Booŷ, 2019; Moueddene et al., 2019). Emergent digital/ human configurations challenge established work patterns and portend significant implications for how work is structured and distributed (Wilson & Daugherty, 2018).

### **Conceptual framing of AI for HR**

When organizations adopt AI in HR they first identify ways to generate value and determine processes that can be automated or augmented (Jesuthasan & Boudreau, 2018). They focus on selecting discrete, dull, boring, and repetitive tasks to automate/augment. We posit that, at this stage of the integration process, the role of HR is to work with cross-functional teams to identify implications of AI integration for work and workers. HR priority at this stage is to *re-imagine work*. Next, organizations focus on how each job in a particular unit or department will evolve to accommodate AI, and the tasks or elements of the job to remain in the human domain. AI impacts task characteristics. The role of HR at this stage is to redesign jobs, reconfigure work systems, and restructure work processes and work flows, therefore restructure teams to optimize the new workflow. The primary priority of HR in this stage of AI integration is to support the organization *re-configure work and work systems*.

As the implications of these changes for the workforce and the workplace surface, HR engages in two priorities: *rethinking workforce strategy* and *redesigning the workplace*. This means that HR should engage in five critical activities: first to ascertain impact on jobs and workforce (Frey & Osborne, 2017); second, to determine workforce readiness for AI integration; third, to undertake skill-mapping for upskilling, reskilling, and cross-skilling needs (Davenport & Kirby, 2018); third to prepare leaders and employees (Davenport, 2016); and finally fourth to support workforce in coping with changes by dealing with fear, insecurity and build trust (Skrbiš, Z., & Laughland-Booŷ, 2019). The HR function is therefore, central to redesigning of the workplace with the adoption of AI. This process includes creating a culture that is open to embracing new technologies, and enabling people to learn and cope with the changes; and reworking organizational structure and systems so that they are agile, flexible, and amenable to fast-paced change. Thus, AI integration in

core business processes at the firm level results in a set of activities that fall outside of the transactional or functional tasks the HR function regularly engages in. Based on the nature of these activities, we suggest two emerging new types of work activities for HRM: *Digital Work Design* and *Structural Digital Work*. **Digital Work Design (DWD)** entails the deconstructing of jobs and tasks, and the role of HR in shaping emergent new digital/human configurations, to embed ethics responsibility and accountability in these emergent configurations (Gal et al., 2020). **Structural Digital Work (SDW)** refers to the

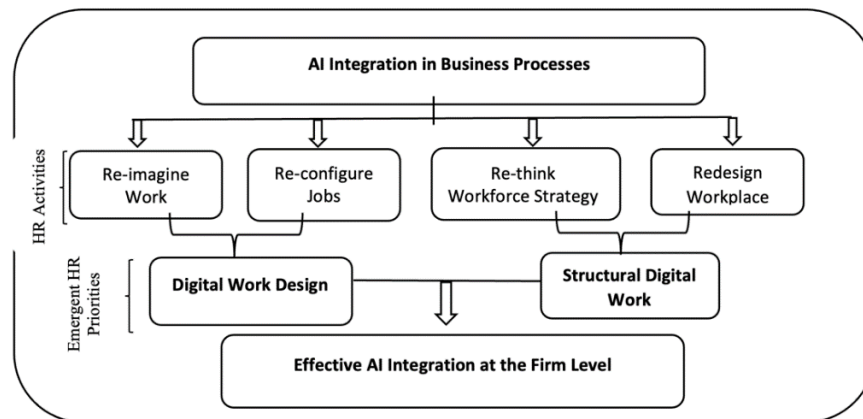


Figure 1: Conceptual model of AI for HR

modification of core capabilities, structures, culture within the organizations to reflect these emergent digital/human configurations (Baptista, et al., 2020). Figure 1 represents these emergent priorities.

## Conclusion and Implications

This paper conceptualizes the effects of AI on the role of HR in organizations and proposes a model to focus on the strategic priorities of the HR function in AI-enabled work contexts (HR for AI). More importantly, by shifting the focus of HR conversation on AI, this paper contributes a paradigm shift in HR literature- from the dominant framing of AI as an enabler of HR tasks and practices to an alternative framing of AI as a disruptor of HR tasks, practices, and strategic priorities. In doing so, this paper outlines the changing nature of HR work and emergent priorities of HR in organizations where AI is integrated into core business processes. This paper also indicates the need for more empirical research focused on the effective integration of AI within the HR function in organizations.

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