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DOI

[10.1002/hrm.22158](https://doi.org/10.1002/hrm.22158)

Publication date

2023

Document Version

Final published version

Published in

Human Resource Management

License

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Citation for published version (APA):

Snell, S. A., Swart, J., Morris, S., & Boon, C. (2023). The HR ecosystem: Emerging trends and a future research agenda. *Human Resource Management*, 62(1), 5-14. <https://doi.org/10.1002/hrm.22158>

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The HR ecosystem: Emerging trends and a future research agenda

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Abstract

Human resource leaders are experimenting with new approaches to organizing and utilizing workers that are not limited to the traditional boundaries of the firm, but rather expand to an ecosystem of work and organization. This special issue introduction article introduces a set of papers from management scholars discussing the ecosystem of work and organization and offers a roadmap for future research on HR ecosystems. An ecosystem perspective invites us to rethink our current frameworks to better link theory to practice. It also challenges us to shift our level of analysis from the organization to the ecosystem, asking: how is work organized and conducted within this complex and evolving context? These papers uncover trends related to (1) technological mediation, (2) impermanence and adaptation, and (3) shared governance. Our hope is that by framing these trends found within the research in this special issue that scholars will be provided a better road map in moving forward with their own research on the role of HR within the ecosystem of work and organization.

KEYWORDS

employee relations, inter-organizational environment, strategic HR, technology

This article introduces the *Special Issue* devoted to the emerging ecosystem of work and organization. Increasingly, work is organized in a way that transcends the traditional boundaries of firms, and challenges some of our traditional models—and assumptions—about strategy, organization, and human resource management (HRM). This emerging ecosystem is characterized by a network of interdependent individuals and organizations, some large and some small, who interact with one another, both collaborating and competing to co-create value for a common set of stakeholders. In contrast to traditional theories of strategy and organization that distinguish the firm from its environment, the ecosystem construct is a hybrid configuration of both market structure and organization. On the one hand, it reflects market mechanisms in that participants have relative autonomy to compete and achieve a differentiated advantage. At the same time,

these participants establish bilateral interdependencies, cooperating with one another, and exchanging resources and information to achieve mutual benefit. Hence, we define this emerging ecosystem of work as a *purposeful work arrangement among two or more worker communities to create value for a common set of customers* (Snell & Morris, 2021).

To support this work ecosystem, HR leaders are experimenting with new approaches to organizing, utilizing a more diverse and fluctuating composition of workers in multiple work modes, collaborating inside and outside the organization, with varied skills and differentiated human capital, and inevitably, establishing different employment relationships and (sub)cultures that are continually evolving. This increased variability—or divergence—is not an obstacle to organizational effectiveness; it is in fact a requirement for strategic capability

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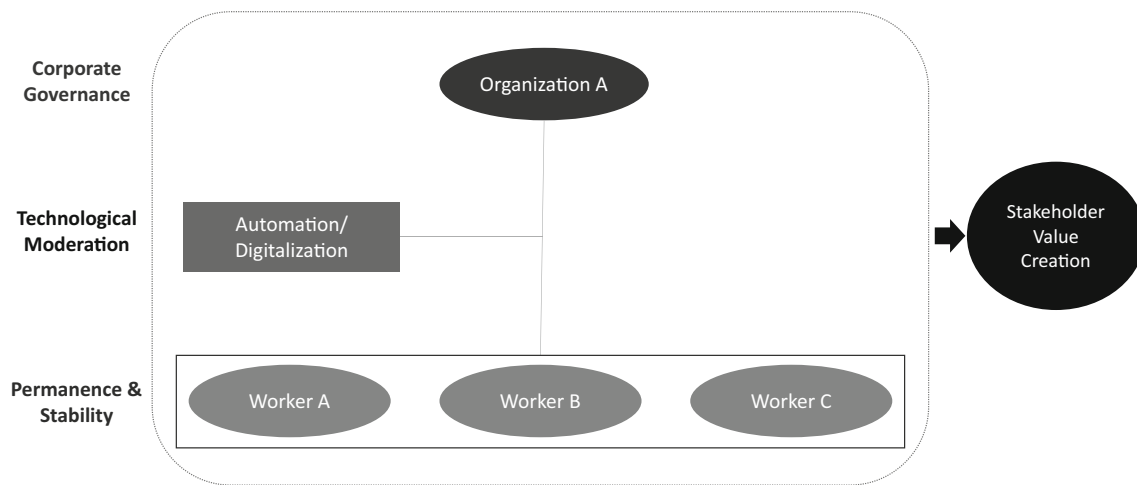


FIGURE 1 Traditional workforce structures

in a more complex and adaptive world. But at the same time, increased variation in the work ecosystem is requiring a concomitant increase in the integrative – or convergent—properties of the ecosystem as well. Workforce complexity requires deep processes of coordination and integration to develop unifying properties and an enterprise logic that (re)connects differentiated human capital, shared norms, values, and expectations to align different sub-cultures and relationships. Add to this the fact that the ecosystem is continuously adaptive, and we see the need for better attention to organizational learning and renewal.

The challenge for HRM in this context is significant, if not paradigm shifting (Benioff, 2019; Johnson, 2019; Ulrich & Yeung, 2019). Traditional theories of HR and strategy, particularly notions of fit and alignment were premised on relatively stable hierarchies. Managing in a complex and adaptive ecosystem requires us to bridge the theory-practice divide and to shift the focus from intra-organizational to inter-organizational HRM (Roundy & Burke-Smalley, 2022). The objective of this special issue is to develop a point of view that invites deeper insights, shapes the broader discussion, and supports future research as it relates to the “*ecosystem of work and organization*.” An ecosystem perspective invites us to rethink our current frameworks to better link theory to practice. It also challenges us to shift our level of analysis from the organization to the ecosystem, asking; how is work organized and conducted within this complex and evolving context?

In this article, we first discuss some of the driving forces of work ecosystems and reflect on how they influence traditional assumptions about work and organizations. We address trends related to (1) technological mediation, (2) impermanence and adaptation, and (3) shared governance. Our intent is to provide a model that establishes some parameters for reconceiving how we approach HRM. Second, we discuss how these trends push us to rethink existing theories as they relate to the boundaries of the firm and the role of HR. Our hope is that by framing these trends scholars will be provided a better roadmap in moving forward with their own research on the role of HR within the ecosystem of work and organization.

1 | TRADITIONAL ASSUMPTIONS OF WORK AND ORGANIZATION

Traditional models of work and organization rest on three basic assumptions. First, technology moderates the relationship between labor and productivity. Second, workers are brought inside an organization for stability and this organization (if properly managed) has some degree of permanence. And third, workers are governed through an internal model of hierarchical authority or through a spot market contract (see Figure 1 to see how the traditional workforce structure is based on these three assumptions).

The first assumption of technological moderation is based on technological advancements in the areas of automation and digitalization that have assisted and even replaced workers in helping to streamline the production process (Kim et al., 2021). Such technological advancements have allowed organizations to improve human capital productivity. For example, digitalizing medical records and introducing application programming interfaces into the healthcare system makes it easier for healthcare workers to transfer medical records and deliver patient care more effectively and efficiently.

The second assumption of permanence and stability is rooted in the industrial revolution where organizations emphasized the selection of a particular strategy and protecting that strategy to achieve organizational position and place that could not be competed away (e.g., Porter, 1985). Such strategies rested on the idea that organizations can sustain their competitive positions through internally hiring workers with specific skills that are unique and valuable to the firm (Barney, 1991). In addition to creating stability and permanence for organizations, sustainable competitive advantage also allowed, and even required, workers to stay inside an organization. As a result, organizations tend to reward employees for long-term commitments and markets tend to recognize employers for long-term viability.

The third assumption of corporate governance comes largely from transaction cost economics arguments that because workers with firm-specific skills may behave opportunistically, these employees

TABLE 1 Trends shaping workforce ecosystems

Ecosystem of work and organization	
Ecosystem trends	HR implications
Technological mediation	Digital online platforms (DOP) and artificial intelligence (AI) management systems decrease operational, relational and transformational risk and, hence, decrease the need for internal monitoring and control mechanisms... decreasing the traditional role organizations as hierarchical governance mechanisms
Impermanence & adaptation	As more work becomes project-based, cyclical, and problem-focuses, more work will be done by contractors and even by temporary organizations set up to solve short-term problems (e.g., pandemic vaccinations). Workers are also more interested in short-term "gig" work or cycling across multiple organizations
Shared governance	Increased collaboration across organizations and individual contributors requires greater mutual interdependence or mutual accountability. Mutual accountability means workers and organizations are no longer accountable to their own teams or organizations alone, but to multiple organizations and individual contributors to develop value to a common customer

should not only be hired by the organization but should be managed using hierarchical fiat (Williamson, 1979). In other words, employees are willing to give up decision-making autonomy as external spot-market contractors for stability and permanence as internal employees. For example, an employee with skills specific to an organization is willing to comply with company decisions in pursuit of potentially long-term employment and even employability.

While each of these assumptions about traditional workforce structures is still valid, trends in the last couple of decades have caused us to pause, and consider how these assumptions might be reconciled to the new realities of work and organizational ecosystems. Below, we reconsider how technology is integrated into work, how workers and organizations change over time, and how workers are governed to create customer value. In essence, we introduce a new HR ecosystem structure based on these three trends.

2 | TRENDS SHAPING THE ECOSYSTEM OF WORK AND ORGANIZATION

Three general trends are shaping HR ecosystems (see Table 1). First, the work tends to be mediated (rather than just moderated) via technological exchanges and infrastructure. Second, the ecosystem tends to be dynamic, reflective of many impermanent elements that are

continuously reconfigured and adaptive. Third, control and direction of the ecosystem is increasingly based on a model of shared governance.

2.1 | Technological mediation

Technology, particularly digital online platforms for work collaboration, alters the way work is done, where it is done, and with whom (Kim et al., 2021). Digital online platforms influence the way tasks are designed, improving the robustness of information and data analytics, facilitating the relational exchanges that underlie collaboration, and altering the configuration of organizations and entire business models. Technology is no longer seen simply as an add-on or enhancement of work; it is increasingly how work gets done; from the user interface to the key process drivers, to the critical infrastructure for value creation. To discuss how that influences the workforce ecosystem, we can generally examine technology impacts at three levels: operational, relational, and transformational (Snell et al., 2002).

2.1.1 | Operational impact

From an operational standpoint, technological mediation alters the design and functionality of work; that is, it provides access to more and better information, augmenting processes to increase efficiencies, quality, and speed, perhaps even automating the work itself. These changes in the nature of work may affect the worker in both positive and negative ways. On the one hand, technology provides opportunities to supplement and complement the traditional skills and work of employees, giving them better decision support, even operating as a digital collaborator of sorts, offering superior methodologies, and dramatically increasing productivity. At the extreme, technological mediation such as AI and machine learning may do more than augment worker skills; it may substitute for human input.

Einola and Khoreva (2023) studied employee responses to AI, particularly the potential conflicts between "augmenting" or supporting the work of employees and "automating" or replacing humans. The research provides insight into how different cohorts (executives, managers, tech-savvy and traditional employees) react in different ways, based on the way they make sense of technology's implementation and the ways that it affects their work.

Similarly, Malik et al. (2023) established a framework mapping the ways AI-assisted HR platforms may influence employee experience and their subsequent levels of engagement. The research shows the profound effect that digital technology may have (both positively and negatively) on employees within the HR ecosystem.

Perhaps the most obvious effect of technology mediation, particularly highlighted during the pandemic, was the discretion it provided organizations regarding where and when work occurs. Rather than being limited to traditional synchronous approaches to work, digital technology in particular has opened numerous opportunities for remote work and flexible scheduling. This has dramatically changed

the way employers and employees think about work and the way they view employment.

These operational changes associated with technology mediation also affect the HR function, providing remote access to broader and more current workforce data, enabling faster processing turnaround, and even creating possibilities for worker/manager self-service. By streamlining and simplifying the user interface (backed with superior data analytics), digital technology is dramatically increasing the capacity, reach, and strategic impact of the HR function. This is a key enabler of broader and more diverse workforce ecosystems.

2.1.2 | Relational impact

Building on these operational effects, we also see technology's relational impact on ecosystem composition and collaboration. By helping to overcome the limits of time and geography, technology increases the scope of potential relationships and economic partners. In so doing, technology expands the size and range of relevant talent networks, providing opportunities for more diverse, dispersed, and virtual connections (cf., Driskell et al., 2003). The upshot is that network variety potentially increases access to more and better skills and knowledge. To leverage those relationships, technology also has become an enabler of better connectivity, communication, and data exchange, reducing transaction costs, improving information flows, and facilitating real-time collaboration. The net effect of this relational potential is the ability to develop and sustain a more complex and multilateral set of partnerships in the workforce ecosystem.

From an HR standpoint, the relational impact of technological mediation has implications for the composition of the workforce, its degree of inclusiveness or exclusivity, the nature of learning and knowledge sharing, the way workers perceive work, and the way they engage one another and collaborate within the broader organization. HR can provide the processes and structures to enable effective collaboration within the ecosystem. Ultimately, it can influence their sense of place or purpose in the workforce ecosystem.

2.1.3 | Transformational impact

Finally, technological mediation has had a transformational impact on organizations. By modifying processes, systems, and structures, technology transforms the architecture of organizations. For example, Yalenios and d'Armagnac (2023) studied how digitalization can transform production processes and directly influence the nature of work, the workforce, the workplace, and HR strategy. They examined the challenges of achieving alignment under these circumstances and the key requirements for implementing new HR systems.

The transformational impact of technology can extend to entire value chains. For example, a joint study by the OECD and World Trade Organization (WTO) illustrated the increased growth of global value chains and the associated complexity and interconnectedness of firms and entire economies. More than half of the world's manufacturing imports are intermediate goods (such as parts and components,

and semi-finished products). There are advantages that derive from these complex value networks, both to buyers and suppliers, to large and small firms, and to those in manufacturing and service businesses. However, there are obvious coordination challenges, as the complexity of these networks can make solving supply chain problems inscrutable (OECD, 2013).

Technology is a key enabler of that coordination. Digital transformation in particular has led to a rapid rise in business model innovation, characterized by enhanced customer engagement and value, supported by new (digital) channels to market, and a reconfigured operating model of capabilities, resources, and partnerships.

From an HR standpoint, these technology-enable transformations have resulted in large-scale shifts toward more diverse and dynamic workforce ecosystems. As platform organizations, global value networks, online e-commerce, and the like have created new conceptions of strategy, structure, and modes of value creation, they correspondingly invite innovations in the design of work, the nature of collaboration, approaches to learning and capability development, even our conceptions of employment, identity, and organizational belonging.

Keegan and Meijerink (2023) studied the ways in which organizations use on-line labor platforms (OLPs) to manage core and strategic workers. By implementing technologies like machine learning, big data, and algorithmic management tools, they can connect gig workers and customers for short-term labor services. To manage these two-sided markets, OLPs establish a workforce ecosystem that consists of autonomous actors that are interdependent in co-creating mutual value. Research such as this makes clear how advances in technology lead to advancements in HR that redefine what is possible in work ecosystems.

2.2 | Impermanence and adaptation

A second underlying trend influencing workforce ecosystems is the strategic shift away from stability and optimization toward flexibility and adaptation. Traditional models of strategy and organization have emphasized the achievement of protected positions of differentiated value (e.g., Porter, 1985) that cannot be competed away and lead to sustainable competitive advantage (Barney, 1991). And while these time-honored frames have been very useful, they are less compelling in environments of continuous change and disruption where innovation, agility, and dynamic capability are key to value creation.

In this context, workforce ecosystems reflect not just the complexity of contemporary organizations, but also their dynamic characteristics and inherent adaptability. As with technological mediation, the impact of change and adaptation effects the nature of work, the workforce, as well as forms of collaboration and organizing. Each has implications for HR.

2.2.1 | Impermanence of work

Although many aspects of traditional work are stable, continuous, and relatively permanent, an increasing amount of work tends to be

temporary, episodic, cyclical, flexible, and/or highly adaptive. This reflects the growing trend of engagement in self-employment, which has a direct impact on the relevance of strategic HRM. That is to say, we often manage talent, within an ecosystem, which we do not employ (Cross & Swart, 2022; Kinnie & Swart, 2020). Temporary work itself is not new, but in environments of rapid change and uncertainty, temporary work often reflects and organization's response to unexpected challenges and arising opportunities, often used during periods of transition, or as an interim solution or a bridge to a new form of organizing. In the past, these disruptions were exceptions to the norm, but increasingly they represent the new normal.

Temporary or impermanent work is also a function of episodic demand, such as work that is needed intermittently or cyclically. More subtly, the impermanence of work also reflects dynamic adaptation and rapid change in ways of working, processes, and methodologies. For example, it is quite common for jobs to change so much from 1 year to the next that the “old” job is effectively replaced by the new. With these changes, job skills change quickly too, with skills becoming obsolete much more quickly than before. This has been one of the challenges of the digital revolution. At the extreme, in situations where experimentation and novelty are foundational to value creation, jobs and the design of work are, by definition, impermanent, and continuously adaptive.

Traditional approaches to HR premised on strategic control, stability, efficiency, and continuity are challenged in this context. In many cases, temporary work arrangements are contracted externally, increasing the scope and flexibility of employment, and opening the doors to a broader talent pool in the workforce ecosystem. But at the same time, firms may resource this work by redeploying internal (permanent) workers to temporary projects. Thus, forming part of a greater network of talent. Either way, the dynamic nature of work requires a flexible approach to HR where potential talent can be developed and deployed expeditiously. More on this below.

2.2.2 | Impermanence of workers

Closely associated with the impermanence of work is the impermanence of the workforce. Workers come and go. In dynamic labor markets, evidence suggests that more workers prefer freelancing, or temporary “gig” work (Ashford et al., 2018). Even when the work itself is permanent, the trend is for employees to move on to seek new opportunities (Kuhn et al., 2021). However, there is the point at which the transaction cost economics of firms, organizational structures, and individual careers meet market demands (Cross & Swart, 2020).

Following the Covid pandemic, for example, while organizations tried to return to normalcy, they experienced the “great resignation,” (Klotz, 2021) suggesting that organizations had less grip on even their most valued employees. As one indicator, data suggest that worker tenure has been decreasing across a broad spectrum of industries, suggesting that the conception of employment may be changing as well (Bidwell, 2013; Hyatt & Spletzer, 2016). Dynamic labor markets

reduce worker switching costs, creating more relevant employment options, resulting in more voluntary turnover, and a shift in worker engagement. By necessity, HR functions are thinking more expansively and dynamically about the broader ecosystem of talent; how to connect, engage, and develop those relationships over time.

Taking these ideas further, as the requirements of work change rapidly, the upskilling, continuous learning, and behavior adaptation de facto reflect changes in the workers as well. In 2017, the World Economic Forum estimated that the half-life of skills—that is the period of time before the value of a skill is halved—was approximately 5 years across all jobs (Kasriel, 2017). That number continues to decline in many jobs, particularly in technical work (Kasriel, 2017). When the human capital requirements of work change this quickly and are fluid, it is common for organizations to find their job incumbents are underqualified. HR solutions to this challenge include replacing the talent, and/or rapid upskilling, reskilling the workers. All of these approaches have given rise to prioritizing a healthy workforce ecosystem that supports both the “make and buy” options for firms.

2.2.3 | Impermanence of organizations

Just as work and the workforce are dynamic, so too are the approaches to organizing. At a micro level, collaborative relationships and exchanges among workers may be transitory and may shift when the nature of interdependence is temporary. Project teams, task forces, pilot programs, and the like all reflect this type of organizational impermanence. They are often designed ad hoc, formed contemporaneously, fit for purpose, and informal. The duration of the entire team may be time-bound, or the configuration of membership may be temporary, or the pattern of interactions among team members may vary over time. All of it can be in flux. Given their more informal nature, these temporary teams often draw on outsiders, subject matter experts, key stakeholders, and industry specialists. The value of these internal/external collaborations is that they mirror the variation and change in the environment. When the external context is changing, the collaborative structures need to be adaptive as well. Besides the teams that are organized ad hoc, organizations also increasingly build agility in their organizational structure, for example, through removing hierarchical layers and the use of self-managing teams.

We can observe the same patterns when we scale to larger forms of organization such as strategic partnerships, alliances, and joint ventures. They are valued for their flexibility. Rather than designed for hierarchical control and stability, they are configured horizontally as dynamic and adaptive learning organizations. And from an HR standpoint, the challenge is to develop a more expansive and adaptive work ecosystem that supports evolving collaboration, mutual interdependencies, development of dynamic capabilities, and continuous knowledge exchange. This is part of what is meant by the co-evolution of the ecosystem.

Burke and Morley (2023) describe the growth of temporary organizations in industries such as construction, media, software,

healthcare, etc. They note that temporary organizations are used to quickly react and adapt to disruptive forces, but also to proactively create opportunities for innovation, organizational learning, and dynamic capability. The upshot is that work is increasingly organized horizontally across a diverse set of interdependent collaborators, who each tend to be specialists in their areas and engage with others on a contemporaneous and/or intermittent basis in order to achieve their shared goals.

The challenge for HRM in these dynamic contexts is to enable the requirements of change and adaptation while also providing connectivity and mutually beneficial relationships among interdependent parties. This suggests that the importance of social capital—in addition to human capital—is foundational to HRM (Kang et al., 2007). The notion of the importance of social capital as a driving force in the management of human capital in an ecosystem is particularly prevalent when the lens of response time is included (Swart et al., 2014). Some ecosystems rely on the flexibility and availability of human capital across extended periods of time. Take for example the management of talent during the pandemic wherein longer time periods for the redeployment of talent and development of human capital in the ecosystem took priority. Several case examples are evident in government bodies and health services, where the long-term benefits of fit and flexibility are evident.

There are, however, cases where the focus on social capital and tempo integrates and need to be aligned. Particularly, in cases such as ecosystems that function in crisis situations. These specific networks often comprise network members, charities, broadcasters, and financial institutions who, as a network, will raise substantial funds in a short period of time in order to save lives. In these contexts, social capital; that is, the coming together of shared values, detailed planning, and long-term relationships, will mobilize human capital to the highest degree of performance. Specifically, HRM exists at the level of the ecosystems in order to strengthen social capital and respect all the stakeholders that work under pressure in the crisis situation in order to generate success.

2.3 | Shared governance

A third trend shaping workforce ecosystems is the increasing prevalence—and reliance on—shared governance. In contrast to traditional governance models of centralized and hierarchical authority, workforce ecosystems reflect a more democratized approach that involves mutual influence among related parties in the key decisions about how they operate.

Collaboration by its very nature implies mutual influence. And as we look at the complex, multilateral interdependencies that characterize workforce ecosystems, there is naturally a trend toward reciprocal influence and agreement among related parties. We can distinguish forms of distributed governance in two fundamental ways: (1) top-down design versus bottom-up emergence and (2) internalized versus externalized value.

2.3.1 | Design versus emergence

Traditionally we conceive of key authority and governance decisions as being determined by senior leaders, formalized, codified, and implemented within the organization. From the standpoint of HR, this is reflected in policies, processes, and practices that are designed top-down, and administered within the organization. However, in complex and dynamic environments of workforce ecosystems, centralized and formalized approaches to governance present some limitations. There are countervailing forces of emergence; that is, behaviors, practices, and lessons learned that take root organically from the bottom up. As Mars et al. (2012) put it,

Organizational ecosystems should be mostly understood as emergent phenomena that result from a tenuous balance between actor agency and social structure, rather than from purposeful engineering.

Actor agency in this case refers to the independent voluntaristic actions of people (individuals and organizations) within the ecosystem who have the autonomy to make decisions as they deem appropriate. Given the complexity inherent in ecosystems, a one-size-fits-all design does not meet every situation. And given the dynamic change inherent in ecosystems, policies, and practices that were institutionalized in the past may not have legitimacy now. Some degree of discretion is inevitable, even necessary as an element of adaptation. And given the collaborative nature of workforce ecosystems, interdependent partners often share best practices and lessons learned, self-organizing their collective approaches, and establishing the seeds of innovation.

The upshot is that traditional top-down design approaches are complemented by the emergent bottom-up, and outside-in, approach of autonomous action. Balancing and integrating these two is a key governance challenge in workforce ecosystems. HR approaches designed for the former may be antithetical to the latter.

Yalenios and d'Armagnac (in this issue) conducted a longitudinal case study of the implementation of a new HR system, which required mutual adjustment among interdependent parties. Using qualitative data, the authors concluded that internal dynamics of alignment were the result of collaboration processes among white-collar managers, blue-collar employees, and HR professionals. Based on their research, the authors proffer a grounded theory of ecosystem alignment based on an iterative progression of both convergent and divergent processes of interdependent parties.

Similarly, Donnelly and Hughes (2023) found that when top-level managers engage with mid-level managers to refine and develop strategy, members of the organization are more likely to contribute to the development of bottom-up strategies. Even though this creates constant tension within the work ecosystem, it allows for strategies to evolve.

2.3.2 | Internalized versus externalized value

In a related way, the shift toward shared governance also reflects the mutual interdependence among traditional organizations and their

partners. Traditionally, organizations have tended to internalize strategic resources and human capital (cf., Lepak & Snell, 1999), and partner externally for complementary or supporting resources. The premise was that by internalizing control over strategic resources, the organization had governance authority over outside partners.

However, in the contemporary setting, organizations do not always internalize strategic resources, even those that are key to value creation or specialized in some way to create competitive differentiation. There are two reasons for this. In most ecosystems, there is considerable modularity, meaning individual parties outside the organization have the autonomy to create value in the market on their own. So even if the lead organization in an ecosystem wanted to internalize the resource or human capital, they might not be able to. It is simply not available to them at a price that works. Recall, our early discussion about workers preferring to remain freelancers in a “gig” economy. This is especially the case for parties who have specialized skills that give them a competitive advantage and potentially more opportunities externally. And in workforce ecosystems, those external parties are not always individuals; they are frequently organizations, in which case the powers of modularity and competitive differentiation are potentially more important. In such instances, governance among ecosystem partners cannot be dictated by the lead organization, but rather tends to be negotiated and distributed proportionally. In reality, there is usually a lead organization that has more value-creating potential than the others, and because of that, they tend to be the orchestrator of key governance decisions. Still, the terms are not dictated, but rather mutually agreed upon.

There is a second reason firms may not internalize key human capital, and this has to do with the degree of strategic change. Recall, our discussion of the impermanence of work. Because ecosystems are dynamic, demand for certain skills—even highly valuable skills—may be transitory. For example, firms routinely contract with specialized consultants and advisors who are instrumental in setting strategy, building capability, and driving customer value. But if demand for their skills is transitory, firms may well leave the relationship externalized. Similarly, firms collaborate with external suppliers and vendors who bring critical skills and resources to the overall value chain. Some firms may attempt to acquire those external partners to internalize their skills and resources. But many prefer to keep them externalized to preserve degrees of freedom and real options in a dynamic environment. Even so, the governance of the collaboration and key decisions about how interdependencies operate tends to be shared and mutually determined.

The challenge for HR in this ecosystem environment is to build collaborative governance approaches for shared human capital resources. It is not just the individuals spanning the boundaries of the firm, but the combinations of talent, skill, and knowledge flows that create value. Traditional HR does not have a legacy of managing across organizational borders, but the relational advantages of external collaboration compel them to do so.

Burke and Morley's work (this issue) makes clear that because the work of temporary organizations transcends multiple partners, its design and governance tend to be shared across those partners rather

than institutionalized within a single firm. In addition, rather than presuming that the organizational architecture is permanent, it often is designed to be purposely ad hoc, with prior agreements for dissolution. The authors advocate for HR systems that are designed to shape relationship patterns within the broader ecosystem (cf., Kinnie & Swart, 2020).

Similarly, Donnelly and Hughes (this issue) provide empirical support for the HR ecosystem and demonstrate the need to engage with the plurality of collaborative and competing internal and external stakeholder interests, rather than assuming a unilateral top-down perspective. The challenge of course in this context is how to scale this approach to HR and preserve its legitimacy. The complexity of the work ecosystem makes shared governance more difficult, and the continuous adaptation of the system suggests that negotiation approaches and agreements will likely be tenuous. Building trust and norms of reciprocity, ensuring mutual benefit among partners, are very likely central to shared governance within HRM.

These three trends are highlighted in the papers within this special issue, as well as by other prominent scholars doing work in this space. Such trends are changing the role of HRM and organizational governance, in general. Below, we provide a more detailed model and identify how each of the papers in the special issue contributes to understanding the changing role of HRM (see Figure 2).

3 | DISCUSSION

The three ecosystem trends identified in this special issue not only bear important implications for HRM, but also for the future of HR as a field of research. Technological mediation, impermanence, and shared governance are drivers of the emerging ecosystems of work and organization. And importantly, they have the effect of reducing the rigid barriers that separate organizations and individuals, making the boundaries more amorphous. For example, technological mediation tends to make traditional internal/external interactions more seamless through virtual and remote work. What constitutes external work, and who constitutes external workers is both less clear, and perhaps less relevant. Technology expands the potential breadth and reaches of the work ecosystem beyond that of the traditional borders of the firm, creating more variation, and at the same time providing the means for better connectivity, leading to new organizational forms.

In a related way, the impermanence of work, the worker, and the workplace implies that the boundaries are not stable, increasing the prevalence of external contracting, raising the pace of redeployment of talent, and more rapidly reconfiguring the forms of collaboration. Rapid adaptation and agility not only catalyze innovation, but also provide dynamic capability in the face of disruption. Finally, shared governance diminishes old authority structures and controls that centralized decisions and replaces them with shared and mutual influence. By empowering ecosystem partners with autonomy to make decisions, there are more opportunities for organic experimentation, creativity, and rapid learning. Shared governance also aligns and

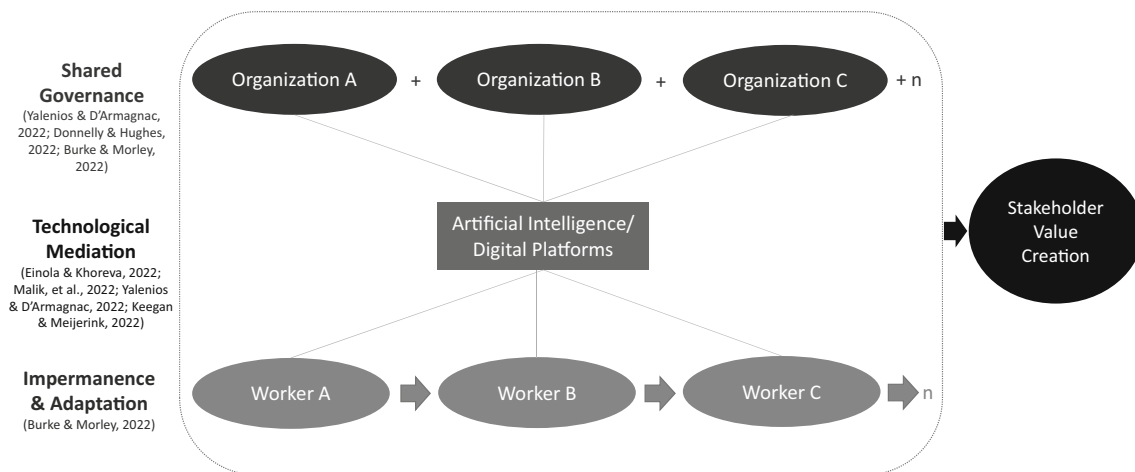


FIGURE 2 Emerging workforce ecosystem structures

legitimizes multilateral interdependencies within the ecosystem, a condition that improves resource sharing, and information flows. These trends not only shape the way work is conducted and organized, but they also establish the parameters of contemporary approaches to HRM. The papers in this special issue have addressed these challenges, and have provided us insight to improve both theory and practice.

3.1 | Future research

In this special issue, we provide a new perspective for strategic HR scholars who tend to focus on how HRM configurations might align with internal or external employment modes (Lepak & Snell, 1999; Lepak et al., 2003). Because work and organization ecosystems represent a network of interdependent actors involved in helping achieve a mutually beneficial set of outcomes, these workforce arrangements move beyond traditional views of markets and hierarchy (Meijerink & Keegan, 2019; Snell & Morris, 2021). This creates a hybrid environment, where firm boundaries are more permeable, and theories of the firm are put into question (Swart & Kinnie, 2014).

By re-examining theories of the firm in an ecosystem context, we first put into question the theoretical assumption that human resources that are valuable and unique should be—or can be—internalized, and that contract workers are necessarily less valuable for organizations. Because core workers with both valuable and unique knowledge are remaining outside the firm in different hybrid employment modes, this traditional view that strategic human resources need to be internalized to effectively control their behavior may be less relevant than before. Moreover, because of an increased need for both cooperation and competition among workforce actors, we argue that internalizing workers to ensure greater cooperation and externalizing workers to ensure greater competition may also be less relevant. Hence, future research should examine where strategically valuable workers are located (e.g., inside or outside the firm) and how these different types of workers can be effectively governed in those different environments, where traditional HR practices may no longer hold.

Strategic HRM scholars have repeatedly drawn upon resource-based views and transaction-cost economics to determine how management practices should be designed. Within the literature, they may disagree on how these management practices should be designed (e.g., high-commitment work systems vs. control systems), but there is consensus that such practices should be designed for internal employees and that market contracts should be used to control quality from workers outside the firm. Such traditional notions of HRM may not only be outdated, but may also be severely limiting the effect that HRM may have on the ecosystem of work for different actors contributing to a common objective for the firm. Hence, future research should be willing to examine models where workers inside the firm might not be managed through traditional hierarchical fiat but instead are allowed to govern themselves and make adaptations to environmental changes. Research should also examine when workers outside the firm might actually be governed by more top-down approaches through mechanisms like modularity and online platforms to ensure alignment with firm objectives.

Finally, because theories of the firm argue that optimal strategic resource allocation activities will lead to competitive advantage from a static equilibrium perspective, scholars need to adopt a more dynamic view of resources to identify how firms might respond to both environmental and organizational tensions that firms face when trying to govern a workforce ecosystem. Managing these tensions requires a dynamic equilibrium approach to research that is different from a contingency theory approach, pointing out the need to not just stick with one strategy but move fluidly from one strategy to the next, sometimes embracing multiple strategies at the same time. Such an approach to strategy harnesses the constant tensions found in an evolving environment, enabling the firm to not only compete but to sustain its competitive advantage. Participants in the ecosystem also need to change and adapt continuously to the changing strategy as well as the changing ecosystem. Future research may explore how the dynamic equilibrium approach can be used to better understand and manage the changing HR ecosystem and its different actors.

Overall, these future research streams will require a greater focus on longitudinal research methods, both qualitative and quantitative. Such

longitudinal approaches, as can be seen in this special issue, show the importance of understanding how the process of value creation unfolds over time and how firms and individuals will at times be competing with one another, while simultaneously or sequentially cooperating. For example, Bayesian learning models might help examine how individual actors have prior beliefs about coordination and competition and how these strategies are updated over time as the actors learn from one another and shift their thinking as new inputs are accounted for over time. For example, scholars have pointed out the value of tracking how workers and organizations achieve balance in a workforce ecosystem where employees increasingly operate like market contractors and external workers increasingly operate like internal employees (Snell & Morris, 2021).

Future research should also engage more with network analysis to understand informal and shared governance mechanisms used within ecosystems of work and organization. What types of networks are more likely to lead to greater ecosystem performance? For example, what do ecosystem network structures look like? Do they always consist of a central actor who sets up the rules for the ecosystem or do multiple actors play a role in shaping and governing the ecosystem? In addition, dynamic network approaches may be helpful in analyzing how ecosystems develop over time and the role of the different actors in how ecosystems evolve. Moreover, it will not be enough to only examine the network structures, but also to examine cognitive aspects of networks, like examining energy flow and information processing impediments in these highly complex work arrangements.

Furthermore, future research would need to consider how knowledge resides and develops within the ecosystem. Particularly, the impact of knowledge, as it is exchanged and developed across organizational boundaries, (more) often virtually, and how it is retained and shared within the ecosystem. In this context, social networks play a key role in knowledge development and exchange. Particularly, when the lens of tempo, and needing to respond in crisis situations becomes a focus of future research. Here, as scholars, we have an opportunity to link the future of ecosystems to social change and impact. This relates to a possible avenue of considering complex adaptive systems that would enable new knowledge development and sharing opportunities in the future.

In conclusion, the papers in the Special Issue address the need to reflect on the research methods that we adopt to study ecosystems of work and organizations. As scholars, we therefore need to think more broadly about how we engage in the developing and evolving nature of work, within and across boundaries.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

DATA AVAILABILITY STATEMENT

Data sharing is not applicable to this article as no new data were created or analyzed in this study.

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How to cite this article: Snell, S. A., Swart, J., Morris, S., & Boon, C. (2023). The HR ecosystem: Emerging trends and a future research agenda. *Human Resource Management*, 62(1), 5–14. <https://doi.org/10.1002/hrm.22158>