Between interdependence and autonomy: Toward a typology of work design modes in the new world of work

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Abstract

Despite the rapid pace with which the world of work has been transforming, our concept of work design—the content and organization of work tasks, activities, relationships, and responsibilities—has remained remarkably resistant to change. This shortcoming not only limits our theoretical understanding of work design but also constrains organizations' ability to sufficiently adapt to human resource management (HRM) needs in the new world of work. I review the principal categories of work design to theorize about a typology of work design modes and their inherent HRM configurations. The typology proposes four ideal-typical modes—organization-defined work design, self-directed internal work design, formalized external work design, and self-governing work design—that differ in their requisite degrees of work interdependence and work autonomy. In a second step, I exemplify the conceptual dimensions of the typology in relation to three organizations using the case study as illustrative convention. The typology has several implications for theory, practice, and future research on work design and HRM.

Abbreviations: HRM, human resource management; R&D, research and development.

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INTRODUCTION

We are experiencing a rapid transformation of the world of work. Digital technology has made virtual forms of work more prevalent, and their adoption has skyrocketed due to COVID-19. The rise of artificial intelligence and robotics has altered the balance of work distribution, and work arrangements have become increasingly fluid, expanding the number of independent contractors, freelancers, and gig workers (Ashford et al., 2018; Duggan et al., 2020; Spreitzer et al., 2017)—the last of which is defined as short-term contract workers who are coordinated through a mobile app (Spreitzer et al., 2017). Work arrangements have also become more interdependent due to increased interactions among coworkers and external stakeholders, while individuals are co-designing work processes in response to environmental changes (Kinnie & Swart, 2020). Organizations have started to experiment with different work designs—the content and organization of work tasks, activities, relationships, and responsibilities (Parker, 2014)—not only in the start-up and technology domains, including companies like Spotify and Zappos, but also in other industries and across the organizational life cycle (Laloux, 2014; Lee & Edmondson, 2017).

Despite the scholarly and public discourse on this topic, organizations are not well equipped to face the radical changes presented by the new world of work. For example, according to a Deloitte (2019) industry survey, only 6% of organizations are prepared to continuously adapt to and shape their work environments. Similarly, as work
is increasingly being deconstructed into tasks and projects that may also be fulfilled by machines and contingent workers, organizations are challenged to revise the ways in which work is coordinated and managed (Boudreau & Donner, 2021).

Scholarly work offers a fragmented account of how work is performed, with studies scattered across the task, work process, and organizational structure levels (Grant & Parker, 2009; Torraco, 2005). Further, with the recent growth in alternative work arrangements (Spreitzer et al., 2017), individuals and organizations alike face greater choices for how work could be designed (e.g., Ashford et al., 2018; Lee & Edmondson, 2017). This has profound implications for organizations’ human resource management (HRM). However, the HRM literature has paid little attention to the design and configuration of HR practices in various work design modes (Becker & Huselid, 2010) beyond digitized gig work (Schroeder et al., 2021) and independent work (Cross & Swart, 2022).

I contend that our theoretical and practical understanding of work design limits organizations’ ability to adapt to the HRM needs of this new world. To overcome this limitation, I conceptualize organizations’ distinct HRM configurations regarding different approaches to designing work. I first review existing theories of work design and derive two primary conceptual categories to theorize a typology of work design modes and its inherent HRM configurations. Second, I use three case studies to illustrate this typology (Siggelkow, 2007). The three selected organizations hail from different industries (appliances, professional services, and creative art) and locations (China, Spain, and the US) and differ in size, yet also share similarities in how they configure their work. Taken together, this typology helps HRM and work design scholars improve their theoretical propositions and empirical designs, while also guiding corporate practice in rethinking how work could be done.

2 | THEORIES OF WORK DESIGN

Work design reflects how work tasks, activities, relationships, and responsibilities are organized, performed, and altered (Grant & Parker, 2009). It differs from job design in that the former not only reflects individuals’ specified technical tasks within a fixed job but also their engagement in emergent, social, and self-initiated activities in flexible roles (Parker, 2014). Work design thus focuses on how a particular task is performed and how performing it may affect the interface with other work roles (Grant, 2007). Past research has used various theoretical lenses to conceptualize work design at the level of specific tasks, collaborative work processes, and the wider organizational structure (e.g., Grant, 2007; Lee & Edmondson, 2017; Torraco, 2005).

The dominant lens at the job or task level is Hackman and Oldham’s (1980) job characteristics model, which conceptualizes five core job dimensions (task variety, autonomy, feedback, significance, and identity) that can increase intrinsic work motivation, satisfaction, performance, and presenteeism by stimulating feelings of meaningfulness and responsibility, and knowledge of results. Abundant research has tested and expanded this model to capture a broad range of job characteristics and work-related outcomes (Parker, 2014). For example, recent work has shown that social (i.e., social support) and task-related characteristics (i.e., level of decision-making autonomy) condition employees’ engagement in developing organization-wide strategies (Strobel et al., 2017). Other studies have examined individual and contextual factors that affect work characteristics, as demonstrated by the literatures on occupations (Dierdorff & Morgeson, 2013) and job crafting (Schroeder et al., 2021; Wrzesniewski & Dutton, 2001).

Scholars have also considered the interdependencies of work processes. Sociotechnical systems theory, for example, highlighted early on the benefits of leveraging workers’ capabilities to help them cope with technological uncertainty. Workers perform better and benefit from the challenge, variety, feedback, and teamwork that results from taking some responsibility over the work design (Pasmore et al., 2019). By comparison, process improvement theorists have been interested in understanding how work is performed across phases and interfaces, as in the case of an internal value chain, to continuously improve and reorganize work (Torraco, 2005). More recently, scholars have highlighted the relational architecture of work, which explains why workers act in a prosocial manner (Grant, 2007).
and how work is done collaboratively, which is particularly relevant in a context where work activities increasingly rely on partners beyond organizational boundaries (Kinnie & Swart, 2020).

At the broader level of organizational structure, scholars have drawn on technostructural change models to analyze how firms alter their technology and structure—and, by extension, their work design—as a function of factors such as organizational size or technological changes (Cummings & Worley, 2015). Adaptive structuration theorists, who study the role of advanced information technologies in organizational change (DeSanctis & Poole, 1994), have examined how normative and structural features, such as formal rules and standard operating procedures, emerge as workers apply such technologies. Recent research has conceptualized different forms of less hierarchical organizations and the implications for how work is configured in a more decentralized manner (Lee & Edmondson, 2017).

These various theoretical streams offer a fragmented picture when contrasted with the increasingly fluid nature of how work is performed (Cappelli & Keller, 2013; Kinnie & Swart, 2020). For example, how can different tasks be reconfigured and integrated within the same work activity, as is common for new forms of work (e.g., Ashford et al., 2018; Lee & Edmondson, 2017)? How do organizations orchestrate their broad range of internalized and externalized labor with varying levels of commitment and contractual obligations to execute specific work tasks (Boudreau & Donner, 2021)? And what are the HRM implications of changes to how work is organized? To develop new theory, I derive prominent categories of work design to conceptualize ideal-typical work design modes and outline the HRM configurations that are integral to each mode.

3 | IDEAL-TYPICAL WORK DESIGN MODES

The reviewed work design theories share two principal conceptual categories that derive from critical features that organizations need to manage, and that I draw on to theorize about work design modes in a context of technological advances, digital disruption, and rapid change. Work interdependence—the extent to which performing a work role depends on work interactions with externalized labor—accounts for the fact that organizational boundaries are becoming more permeable, with work—and people—moving within and outside of the organization more freely (Jesuthasan & Boudreau, 2019). In fact, the ratio of externalized to internalized work stands at around 40:60 in larger US firms (Connelly et al., 2021). Work autonomy—an individual’s freedom and discretion to carry out and craft work roles and responsibilities (Hackman & Oldham, 1980; Wrzesniewski & Dutton, 2001)—is similarly prominent, as individuals’ agency in shaping emergent and self-initiated activities in increasingly flexible work roles is integral to contemporary work design (Parker, 2014).

First, existing theories suggest that work roles are inherently interdependent, as noted in Hackman and Oldham’s (1980) job characteristics model. Greater levels of work interdependence come with a greater need for skill variety while also providing more sources of feedback. Similarly, adaptive structuration theory assumes that work structures emerge from individuals implementing new technologies through task-related interactions with their coworkers (DeSanctis & Poole, 1994). The literature on post-bureaucratic firms similarly points to the need to replace hierarchical structures with network structures of control and communication that allow for more fluid and interdependent work (Lee & Edmondson, 2017).

Work interdependence is not limited to interactions among the workforce but also comprises work activities shared with other stakeholders, such as clients or suppliers. However, this paper concerns differences in work interdependence that stem from the relative use of internalized and externalized labor, given that work may be increasingly performed by temporary workers and independent contractors (Spreitzer et al., 2017). Work interactions among internal staff tend to be characterized by greater proximity and frequency, and usually also better knowledge of one’s counterparts. By contrast, external work interdependencies increase organizational complexity, for example, due to a greater fragmentation of work arrangements and challenges of fostering commitment and retention (Cappelli & Keller, 2013).
Second, existing theories point to work autonomy as a principal dimension of work design. Work is now characterized by increased uncertainty due to competitive pressures, changing customer demands, and technological disruption (Jesuthasan & Boudreau, 2019). Work design constantly evolves as a function of changing role requirements, so typical manager-designed work structures are increasingly complemented by worker-designed elements (Grant & Parker, 2009). In addition, individuals have become more proactive in crafting their work (Wrzesniewski & Dutton, 2001) and careers (Kost et al., 2020).

As a result, organizations increasingly need to empower their members to design work themselves. Work autonomy was featured as a core dimension in Hackman and Oldham’s (1980) model and appeared in adaptive structuration theory, which pointed to workers’ discretion in implementing organizational structures and, by extension, their specific work roles (DeSanctis & Poole, 1994). Recent changes toward more self-directed organizing (e.g., Laloux, 2014; Turco, 2016) have made autonomous work design even more prevalent. Note that work autonomy is not limited to how a given work activity is carried out, but also reflects individual agency in accommodating and responding to changing work requirements. This distinction is important because, while independent contractors, freelancers, and gig workers typically have directive control over selecting how (process), when (time), and where (location) to perform their assigned work (Cappelli & Keller, 2013; Pichault & McKeown, 2019), the work content and their interface with other workers often continue to be organizationally prescribed.

In short, conceptualizing work interdependence and work autonomy as two principal categories of work design provides organizations with different configurations of their work activities. For conceptual clarity, I distinguish between internal and external work interdependence to denote an organization’s preference for internalized versus externalized labor, as well as low and high levels of work autonomy. This leads to four ideal-typical work design modes (Figure 1): (1) organization-defined work design (internal work interdependence, low work autonomy), (2) self-directed internal work design (internal work interdependence, high work autonomy), (3) formalized external work design (external work interdependence, low work autonomy), and (4) self-governing work design (external work interdependence, high work autonomy).

**FORMALIZED EXTERNAL WORK DESIGN MODE**
- **Features**
  - Fluid and permeable organizational boundaries that allow for drawing on high levels of externalized labor
  - Work autonomy is limited to how work is performed
- **Employment mode**
  - Short-term direct or platform-mediated contractors and agency workers
- **Examples**
  - Platform-mediated work as offered by companies like Uber, Glovo, or Amazon MTurk, on-demand service providers such as consultancy Eden McCallum, or companies drawing heavily on direct contracting and agency work

**SELF-GOVERNING WORK DESIGN MODE**
- **Features**
  - Fully decentralized approach to define, allocate, compare, and align work roles
  - Fluid and permeable organizational boundaries that allow for drawing on high levels of externalized labor
  - High levels of work autonomy grant workers substantial latitude in designing and structuring work roles
- **Employment mode**
  - Flexible entrepreneurs
- **Examples**
  - Temporary organizing, project network organizations such as in TV and film production, event organization, or collaborative innovation, communities of practice

**ORGANIZATION DEFINED WORK DESIGN MODE**
- **Features**
  - Centralized approach to define, allocate, compare, and align work roles
  - Work interdependence is limited to internal labor
  - Work autonomy is limited to how work is performed
- **Employment mode**
  - Full-time employees
- **Examples**
  - Typical hierarchical organizations with full-time internal employment arrangements

**SELF-DIRECTED INTERNAL WORK DESIGN MODE**
- **Features**
  - High levels of work autonomy grant workers substantial latitude in designing and structuring work roles
  - Firm organizational boundaries that limit work interdependency to internal labor
- **Employment mode**
  - Intrapreneurs
- **Examples**
  - Self-managed organizations like Spotify and Morning Star, or self-managed R&D and product development teams

**FIGURE 1** A typology of work design modes.
design (external work interdependence, low work autonomy), and (4) self-governing work design (external work inter-
dependence, high work autonomy). I focus on the organization's intentional work design choices rather than workers' subjective experiences; however, the two may not always align (cf. Bowen & Ostroff, 2004). Further, an organization may adopt multiple work design modes—for example, an overall organization-defined mode and self-directed internal work design in its research and development (R&D) function. As a result, organizations may also have different HRM configurations (for example, Lepak & Snell, 1999).

3.1 | Organization-defined work design

Work has typically been designed by managers with support from HR specialists, who define and formalize various activities for workers (Grant & Parker, 2009). Integral to this approach is a centralized, top-down method of allocating employees according to job fit. This makes organizations primarily responsible for designing work structure and evaluating work execution (Cappelli & Keller, 2013). Further, centralized work design allows organizations to develop sequences of work roles that translate into formalized development opportunities and career paths.

While such a design mode involves work interdependencies, these are mostly internal to the organization. This is because the main employment mode in this approach takes the form of full-time employment under the organization’s control (Cappelli & Keller, 2013). Activities that involve external interdependencies in the form of externally contracted or agency workers may exist, but they tend to be sporadic and limited to addressing occasional needs that cannot be fulfilled by full-time employees. For example, temporary workers may address peaks in client demand or fill short-term vacancies. Similarly, this ideal-typical work design allows for autonomy—which featured as an important job characteristic in Hackman and Oldham's (1980) early work. However, such autonomy is limited to centrally defined work roles and focuses on how an existing role is performed rather than on how a certain role should be structured in the first place.

Organization-defined work persists in many contemporary organizations and serves as a source of commitment to the organization (e.g., Bos-Nehles et al., 2021). However, it is not easily extendable to new forms of work. Organizations may specify the work packages that are to be performed by freelancers or independent contractors, but it is difficult to design where, when, and how such work is performed—nor should, arguably, organizations do so. Further, given changing customer needs and technological disruptions, organization-defined work design is unnecessarily rigid and slow to respond to necessary changes.

3.2 | Self-directed internal work design

A self-directed internal work design mode grants workers a substantial degree of autonomy for designing their work; it places a greater emphasis on less hierarchical and more self-directed approaches to work. The literature has long differentiated between forms such as self-managed teams, empowerment, and cross-functional organizations (e.g., Lee & Edmondson, 2017; Yin et al., 2019). Common to these approaches is a decentralization of authority over how work is organized. However, firmer organizational boundaries are needed to keep the autonomous units from drifting apart. As a result, this work design mode focuses on internalized labor. Similar to organization-defined work design, this ideal type considers external work interdependencies only as occasional arrangements aimed to address short-term needs. Further, such external work arrangements still fall under the organization’s control, as would be the case for temporary workers and on-call employees, but not independent contractors or freelancers (Cappelli & Keller, 2013; Duggan et al., 2020).

Managing internal work interdependencies is important for a self-directed work design mode to maintain workflow and achieve collective goals. Given the high degree of work autonomy, coordination is often based on common values and norms rather than formal rules and practices (Turco, 2016). Scholars have long debated the relationship
between managerial control and interpersonal trust in organizational coordination (e.g., Long & Sitkin, 2018), and self-directed internal work design pushes the balance toward entrusting workers to monitor themselves. Internal work interdependence can also be managed through bilateral contracts. For example, at Morning Star, a US tomato processing firm, employees voluntarily enter bilateral contracts with coworkers, forming a network of accountabilities in the organization (Hamel, 2011).

The main employment mode in a work design that combines high degrees of work autonomy with internal work interdependence resembles that of an intrapreneur (i.e., a corporate entrepreneur who is employed full-time by the organization; Parker, 2011). Examples include companies such as Spotify (Kniberg & Ivarsson, 2012) and the above-mentioned Morning Star, which have descaled complex work processes and activities to be handled autonomously by cross-functional, self-directed teams. However, R&D and product development units may similarly work autonomously.

The self-directed internal work design mode has important HRM implications. This ideal type continues to focus on full-time employees, but the hiring process tends to be more decentralized. Similarly, work is more open to reconfiguration by workers, which encourages project-based work and frequent internal rotations (e.g., Keller, 2018). Although training and development may still involve formal elements at the organizational level, learning primarily occurs on the job through changing work roles and responsibilities. Further, whereas performance appraisal is typically led by managers and HR specialists in an organization-defined work design, the high degree of decision-making authority in a self-directed mode means that workers provide peer-based feedback (Lee & Edmondson, 2017). Similarly, decisions about the reward structure, such as the share of fixed and variable pay, are often determined by the autonomous units rather than central HR. In a context in which the employment relationship has become weaker (Spreitzer et al., 2017) and individuals' careers span organizational boundaries (Kost et al., 2020), self-directed work design may also create a more immediate commitment to the work team than to the organization.

### 3.3 Formalized external work design

Formalized external work design involves a large degree of work interdependencies. This concerns not only internal interdependencies, for example, due to more physically dispersed work interactions inside the organization (Hertel et al., 2005), but also external interdependencies that need to be sustained. Organizations adopting this mode typically experience fragmentation of their workforce and use externalized labor. In fact, organizational boundaries may be intentionally fluid as long as decision-making authority and control remain centrally enacted. Formalizing external work interdependencies may reduce costs, increase organizational flexibility, and expand access to specialized skills (e.g., Schroeder et al., 2021), but may also improve innovation. For example, Ashford et al. (2018) highlight the creative potential of external work arrangements as individual workers are exposed to different professional contexts, which organizations in this mode may leverage.

However, a high degree of external work interdependencies also increases organizational risks, including talent attrition, loss of relevant knowledge, and workflow disruptions. Externalized labor perceives higher levels of physical and psychological distance to the organization served (Anderson & Bidwell, 2019), while the legal nature of contracting limits organizations' administrative control (Cappelli & Keller, 2013). The formalized external work design mode solves these challenges by restricting workers' autonomy. Specifically, direct contractors and platform-mediated contractors like gig workers may decide how, when, and where to perform their assigned work activities (Connelly et al., 2021). Yet, the scope of the work tasks and their interface with other work roles remain organizationally prescribed and clearly bounded (Grugulis et al., 2003). The advent of algorithmic management as a tool for making work-related decisions (Duggan et al., 2020) constitutes another means of restricting work autonomy. Indeed, gig workers may experience sophisticated forms of control and continuous surveillance that enforce behavior norms (Pichault & McKeown, 2019) and similarly limit the degree to which assigned work processes and responsibilities can be designed by workers themselves.
The main employment mode in a work design that combines high degrees of external interdependence with limited autonomy involves short-term agency workers, direct contractors such as freelancers, and platform-mediated contractors (Spreitzer et al., 2017). Examples of this include ridesharing provider Uber, on-demand courier service provider Glovo (Moreno & Barnett, 2021), crowdsourcing marketplace Amazon MTurk, and on-demand professional service providers like Eden McCallum (Gardner & Eccles, 2011).

The distant working relationship combined with low levels of work autonomy have several HRM implications. As in the organization-defined mode, hiring decisions may be centralized, for example, through a central screening platform (Kuhn & Maleki, 2017). However, they tend to occur on a short-term basis, and with specific task-based contracts. Despite the short-term nature of hiring, repeated contracting of the same worker may occur (Connelly & Gallagher, 2006), and workers are on boarded quickly to ensure readily accessible labor (Kuhn & Maleki, 2017). In the case of high-skill and high-stakes project work—for example, in on-demand consulting—it is even more important for the organization to quickly fill unexpected vacancies. Training and development are therefore typically left to individual workers as they move across projects and tasks (Gardner & Eccles, 2011).

Formal performance feedback for direct or platform-mediated contractors is “almost unrecognizable” (Cappelli & Keller, 2013, p. 591). Instead, work in this mode is subject to regular surveillance and anonymous customer ratings (Pichault & McKeown, 2019), making performance appraisal primarily customer led. The reward structure is mainly based on completion of the predefined task or project. Finally, research has pointed to gig workers and direct contractors juggling multiple jobs and, as a result, experiencing mosaic and liminal careers (Ashford et al., 2018). As a result, these workers may be more committed to their own profession and career than a particular project or team of coworkers (Cross & Swart, 2021).

3.4 | Self-governing work design

The fourth ideal type is characterized by both a strong focus on external work interdependence and high levels of work autonomy. This self-governing work design mode comes closest to suspending organizational boundaries because, relative to customers and users, the organization lacks directive control over the work process (Cappelli & Keller, 2013). In fact, at the extreme, workers act as a “company of one” (Lane, 2011). The formalized external and the self-governing work design mode may both draw on externalized labor in the form of direct contractors and gig workers contracted through platforms like freelancer.com or Fiverr. However, in contrast to the formalized external mode, these individuals have substantial discretion in crafting and designing their work role, related responsibilities, and the connections to other work roles, which is an explicit aim of the self-governing work design mode.

The main employment mode reflects that of a flexible entrepreneur who joins other individual and organizational actors to design and deliver specific projects. Work organization is often temporary in nature (see Burke & Morley, 2016); for example, workers with specific expertise and skills may collaborate for a short duration to accomplish a specific purpose, such as a theater or film production (Starkey et al., 2000). However, it may also be of a longer-term and semi-permanent nature, such as project network organizations, defined as “legally independent, yet operationally interdependent individuals and organizations who maintain longer-term collaborative relationships beyond the time limitations of particular projects” (Manning, 2017, p. 1399). These collectives may be led by project entrepreneurs who initiate, compose, and lead the team to deliver complex services, for example, in the case of open innovation projects (Liftshitz-Assaf, 2017) or large-scale event organization (Manning, 2017).

The permeability of organizational boundaries comes close to the notion of trans-organizational working, where individuals and organizations may collaborate in a networked context to provide products and services, without any dominant employer (Kinnie & Swart, 2020). However, a self-governing work design mode may also operate under the auspices of a single organization, even if the latter exerts little control. For example, it may involve a unit spinning off from a larger organization and establishing independent modes of functioning, although this is likely a temporary
state until a new, more formal mode is established. Communities of practice, or fluid social relations enacted among a self-selected group of individuals (Lave & Wenger, 1991), are another example of this work design.

The organizational void that this mode creates has several HRM implications. Hiring tends to be based on flexible and open contracts that allow workers to be involved in different projects and career activities at the same time, yet also allow for longer-term collaborations (e.g., Manning, 2017). The longer-term collaborative needs characteristic of this mode require a staffing approach that focuses on versatility and interchangeability. This is because subsequent project needs may call for different skillsets and changes in team composition (Burke & Morley, 2016). The interchangeability inherent in this staffing approach provides a strong motivation for workers to regularly update and expand their skills. This also implies that performance feedback comes from clients and coworkers. Because work design is more fluid in a self-governing mode, it is more difficult to determine individual pay differences, and rewards are likely to be shared across the project team. Finally, the longer-term nature of collaboration and the fact that members co-create their work mean that commitment can reach beyond a project to the entire group.

4 | ILLUSTRATIONS OF THE WORK DESIGN MODES

To enrich my theorizing, I follow Siggelkow (2007) and adopt the case study as illustrative convention to illuminate the above ideal types. I contrast the emerging work design modes in relation to three organizations that each reflect a different ideal type. I focus on the self-directed internal, the formalized external, and the self-governing work design. Since many organizations continue to adopt an organization-defined work design, considering work to be performed through full-time employment, on a fixed schedule, onsite, and under close organizational supervision (Spreitzer et al., 2017), its conceptual categories and HRM configurations are relatively well understood, and therefore carry fewer theoretical insights.

I selected three case organizations from different industries (manufacturing, professional services, and creative arts), national heritages (China vs. Spain vs. US), and sizes, while maintaining some similarities in terms of how work design is configured. The three cases complement other studies of more radical organizational types (e.g., Laloux, 2014; Turco, 2016). In line with Siggelkow (2007), I drew on a wide range of sources regarding the three cases, including recent newspaper and blog articles (e.g., Collar, 2020), publicly available interviews with senior leaders (e.g., Gallagher, 2017; Kokolo, 2019), published case studies (e.g., Reiche et al., 2017; Stein & Stein, 2020), and scholarly publications (e.g., Hamel & Zanini, 2018). The three cases help to illustrate the HRM configurations inherent in the self-directed internal, the formalized external, and the self-governing work design modes as contrasted with the organization-defined work design mode. Table 1 summarizes this analysis.

4.1 | Haier

Haier Group is an example of the self-directed internal work design mode. It is a multinational firm headquartered in Qingdao, China, that develops, manufactures, and sells a variety of home appliances and consumer electronics, including refrigerators, air conditioners, washing machines, and television sets, in over 100 countries. Haier’s fast global expansion and success are arguably the result of its unique management system in which every organizational member is directly accountable to customers, employees are dynamic intrapreneurs, and an open ecosystem of customers, inventors, and partners substitutes for a formal hierarchy (Sánchez-Runde et al., 2012).

The company is structured as numerous independent microenterprises with the power to make strategic decisions, recruit and deploy personnel, and distribute profits. These microenterprises are connected through contractual supplier–customer relationships along the internal value chain. Further, Haier maintains an investor–investee relationship with microenterprises and supplies them with resources. As such, microenterprises may survive, die, or grow
depending on their competitiveness (Hamel & Zanini, 2018; Reiche et al., 2017). Although Haier employees act as intrapreneurs and owners, they are employed full-time and essentially operate in a market within the firm. Haier’s organizational boundaries are marked by internal goal-setting, budgeting, and performance management practices. Therefore, Haier’s work interdependencies are internally focused.

Haier’s HRM configurations are typical of a self-directed internal work design mode. Haier’s employees operate within an internal talent market—that is, accomplishing a microenterprise’s objectives results in employees being hired by another microenterprise (Sánchez-Runde et al., 2012). While there is still a central HR function for outside hiring, internal employee selection and allocation are highly decentralized and led by the autonomous units. Further, Haier rotates employees across microenterprises as they are disbanded or newly formed. Haier also makes talent attrition part of a demanding performance management system, regularly dismissing around 10% of its workforce (Hamel & Zanini, 2018). This helps replace talents in line with changing staffing needs.

Given the strong decision-making authority at Haier, workers provide peer-based feedback. Individual objectives are defined and their achievement displayed publicly in each microenterprise, such that employees can give decentralized feedback and even vote out a microenterprise’s leader in the case of low performance (Sánchez-Runde et al., 2012). Microenterprises also distribute profits among their workers. Whereas fixed pay levels are relatively low (Hamel & Zanini, 2018), profits depend on each microenterprise’s performance, making the reward structure highly decentralized. Coordination is also decentralized; for example, to coordinate across various microenterprises, the company draws on a variety of liaisons, including bicultural managers (Sánchez-Runde et al., 2012) and teams of organizational translators (Reiche et al., 2017). In addition, Haier uses an elaborate budgeting process that allocates resources along the internal value chain and translates into accountabilities for each microenterprise, as well as profit

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and loss statements for each worker (Hamel & Zanini, 2018). Finally, because the microenterprise is the main operational unit, it is the principal source of commitment for employees (Sánchez-Runde et al., 2012).

4.2 | Ambar Partners

An example of the formalized external mode is Ambar Partners, a law firm that entered the Spanish market under the auspices of Axiom, a North American company that pioneered the concept of a flexible, on-demand law firm and has been serving over half of Fortune 100 companies. Ambar Partners follows a similar approach to professional service firms like consultants Eden McCallum (Gardner & Eccles, 2011). The firm utilizes the services of over 60 legal professionals who are former partners, counsel, and senior associates in top law firms. Ambar has a small internal team dedicated to quality control and project management, yet its main group of professionals—the lawyers—are independent workers, suggesting a high level of external work interdependencies. While the lawyers are free to decide how, when, and where to work, their work autonomy is restricted through a predefined client scope, fixed pricing, and regular project monitoring by Ambar’s quality control team (Stein & Stein, 2020).

The HRM choices at Ambar Partners are also characteristic of a formalized external work design mode. Lawyers work on short-term projects, and repeat engagement depends on their quality of service. They are centrally screened by an internal team, making hiring highly selective: only 60 of 1200 applicants were initially vetted by the firm (Stein & Stein, 2020). Skill development is primarily the lawyers’ own responsibility. Indeed, legal professionals are selected based on their experience and overall skill levels, and they are matched with specific client needs. From inception, Ambar Partners faced the risk that lawyers might leave the firm to work permanently with their clients and therefore introduced penalty clauses for clients and lawyers. However, these clauses have rarely been invoked because lawyers prefer to work on different projects and for different clients to benefit from greater work variety and learning opportunities (Stein & Stein, 2020).

In addition, the firm’s internal quality control team monitors work progress in close collaboration with clients. As a result, performance appraisals are tightly aligned and client-led. Lawyers work according to fixed pricing on projects, making compensation predictable. At the same time, because Ambar Partners reduces physical office space and other expenses that traditional law firms incur, lawyers can often earn higher and more equitable compensation (Stein & Stein, 2020). Still, the primary source of commitment for these lawyers is their career rather than the firm.

4.3 | Snarky Puppy

Snarky Puppy is a New York-based instrumental ensemble that combines a variety of jazz idioms, rock, world music, and funk and resembles the self-governing mode. Snarky Puppy was founded by bassist Michael League in Texas in 2004 as a ten-member band; it has since grown into an international super-band of over 40 musicians, and most members also play in other music groups (Collar, 2020; Gallagher, 2017). The band has achieved major recognition, winning a Grammy Award for Best R&B Performance and three Grammy Awards for Best Contemporary Instrumental Album.

Work design at Snarky Puppy is characterized by high external work interdependencies. The composition of acting band members is constantly changing; even on the same tour, band members may switch from one concert to the next. This allows members to be involved in other music groups, making organizational boundaries extremely fluid. Given the revolving nature of the band, members constantly switch and adapt their work roles, and musical parts and melodies are redistributed according to who is performing at the time. Like Haier, Snarky Puppy wants members to think like owners and therefore grants them significant decision-making latitude, for example, regarding song writing. As a result, while Michael League acts as the project entrepreneur who decides on the line-up at a given concert, musicians experience high degrees of work autonomy. Given its relatively small size, Snarky Puppy is
illustrative of the self-governing work design mode, both as an entire collective and as a fluid team within an organization, consistent with this paper’s theory.

Snarky Puppy’s HRM choices reflect those of a self-governing work design mode. Note that while Snarky Puppy does not have a formal HR manager, many HR decisions are either made by Michael League or in an informal manner by the entire collective. Although musicians contribute to their own bands, they are very loyal, with six of the ten founding members remaining on the regular roster (Collar, 2020). This durable collaboration in conjunction with high work autonomy also decentralizes the hiring process. Recruitment and selection of new band members is a collective effort. New members typically join after being vetted by existing members (Kokolo, 2019). Allowing band members to serve as primary players in other bands requires Snarky Puppy to “overstaff.” Indeed, for most work categories (i.e., specific instruments), Snarky Puppy needs at least two back-up musicians who can step in, for example, when tour schedules overlap. This requires members to learn the musical parts of a given song for every instrument, which makes them interchangeable and allows the band to flexibly adapt staffing for a given concert or album. This provides strong motivation for members to expand their skill levels so they are not pushed out by others. At the same time, the need to learn what each other has to play is not only empowering but also provides constant learning opportunities (Gallagher, 2017).

Because all musicians are interchangeable and versatile in their skillsets, they are able to provide relevant performance feedback and are more likely to listen to the feedback they receive from their peers. To ensure that members learn all parts of each song, thereby supporting peer-based performance management, a new song is presented digitally in a way that does not audibly differentiate between instruments (Gallagher, 2017). Given the improvisational nature of Snarky Puppy’s music, the songs are often adapted during a concert (Kokolo, 2019)—for example, regarding the length of a specific solo—according to audience mood, or the order of songs may shift in line with musicians’ energy levels. In addition, since new songs are written as a demo for which musicians need to learn all parts, Snarky Puppy drastically reduces collective rehearsal times in exchange for more individual practice and self-coordination based on knowledge of the entire song (Gallagher, 2017). Further, given each band member’s versatility and involvement in the creative process, Snarky Puppy shares profits and uses an egalitarian approach to reward band members (Kokolo, 2019). Finally, requiring each musician to learn all musical parts not only generates a shared understanding for the overarching outcome (i.e., song) but also serves as a source of commitment to the collective. This explains why loyalty to Snarky Puppy is high, despite its fluid boundaries.

5 | CONTRIBUTIONS TO WORK DESIGN AND HRM RESEARCH

The previous sections theorized about a typology of work design modes based on two salient dimensions (work interdependence and work autonomy) and subsequently illustrated the typology by outlining the work design modes and HRM configurations using three case studies. This theorizing has several implications for work design and HRM theory, practice, and future research.

5.1 | Theoretical implications and future research

By integrating work design theories with recent research on the new world of work, the typology allows for a more holistic understanding of work design modes and the related HRM choices that scholars have recently called for (e.g., Kinnie & Swart, 2020; Schroeder et al., 2021). The typology offers several contributions to work design theory. First, it highlights different configurations of work interdependence and autonomy. While these are considered core job dimensions that, together, improve salient work outcomes (Hackman & Oldham, 1980), from an HRM perspective, they carry different implications for work design. Integral to the self-directed internal and the formalized external ideal types is that organizations may allow for high levels of one dimension at the expense of the other. For example,
Haier operates through highly autonomous and self-managed teams, but employees are intrapreneurs who work in Haier’s *internal* market within clearly defined organizational boundaries. By contrast, Ambar Partner’s lawyers are independent workers who choose the degree of their involvement and may work in other arrangements and for other providers; they are free to operate in the *external* market across organizations, yet their autonomy with regard to shaping their work roles and responsibilities for Ambar Partners is restricted. Only to the extent that externalized labor engages in long-term collaborations and is actively involved in co-creating their work roles and responsibilities is it sensible to allow both high external work interdependence and high work autonomy, as the case of Snarky Puppy illustrates.

As such, the typology expands recent work on self-managed organizations, which has distinguished between levels of decentralized authority across decision areas, including work design, work allocation, work monitoring, and performance management (Lee & Edmondson, 2017; Yin et al., 2019). Decisions regarding work autonomy also have important implications for internal workflows. With high work autonomy, such as in the self-directed internal and the self-governing work design modes, a key question is how work processes can be managed at the interface between self-managed units, whether individuals or teams. Haier’s budgeting process is a case in point, but there is a need to extend current literature (e.g., Lee & Edmondson, 2017; Turco, 2016) and theorize in greater depth about the various HRM choices to sustain loose alignment, collaboration, and coherence across decentralized units.

Second, the typology conceptually unpacks the HRM configurations for each work design ideal type (Table 1). This is important as the HRM literature has paid little attention to this topic (Becker & Huselid, 2010). For example, how can HR practices be designed to facilitate skill development, coordination, and peer feedback in a self-governing mode? In such a work design, the onus on training and development likely sits with the individual worker, as is the case at Snarky Puppy and with other forms of project work (Manning, 2017). However, to provide peer feedback and effectively engage in self-coordination in this mode, workers need to develop an understanding of others’ work roles, not unlike in agile methodology (Kniberg & Ivarsson, 2012), which has implications for competency development.

The different HRM configurations in the four work design modes also contribute to our understanding of configurational approaches to HRM system design (e.g., Bowen & Ostroff, 2004). For example, they help specify the work-design-related conditions under which a particular combination of HR practices is likely to be more effective, and they point to differences in the locus of commitment (e.g., team vs. organization) that a particular set of HR practices may foster. It would be insightful for future research to examine whether there are equivalent trajectories along which HR practices change, or whether there is a superior sequence of HR practice changes as organizations move from one mode to another. It would also be interesting to study the extent to which different HRM configurations can be maintained simultaneously as organizations adopt multiple work design modes.

Third, the typology contributes to how we measure organizational outcomes of work design. Typological theorizing allows for equifinality (i.e., modeling various patterns through which constructs can influence a dependent variable of interest, such as firm performance), rather than predicting relationships between independent and dependent variables thought to hold across the entire sample (Doty & Glick, 1994). The idea of contingency approaches has been a hallmark of strategic HRM research (Bowen & Ostroff, 2004), yet it has received little attention in the work design literature (Morgeson & Humphrey, 2008). All four modes of work design may be equally effective if they fit with contextual demands. To examine this assumption empirically, it is necessary to theorize about additional factors that may shape an organization’s choice of work design, including strategic considerations, wider labor market conditions, and even institutional factors (e.g., Becker & Huselid, 2010).

Further, the typology provides a testable classification along which work design may differ. For example, the level of work interdependence can be calculated by measuring the relative share of externalized labor in an organization. The level of work autonomy can be determined by assessing workers’ levels of discretion in their work status, content, and conditions (see Pichault & McKeown, 2019). Typological theorizing calls for hypothesizing relationships between the level of similarity of a unit of analysis to an ideal type and the dependent variable of interest (Doty & Glick, 1994). For example, we would expect that the further an organization is from a particular ideal type, the lower its performance. Relatedly, my typology helps to theoretically sample organizations that should form part of an
empirical study. Scholars may intentionally select organizations—or organizational units—from all four quadrants, or they may compare organizations that resemble one particular mode.

Finally, there are a few limitations that offer additional avenues for future research (see Table 2). While typological theorizing provides broad theoretical distinctions that aid further theory development and empirical testing (Doty & Glick, 1994), the conceptual parsimony comes at the expense of capturing all possible variations in work design. Future research should test this typology and explore additional work design modes. It is also important to study whether and how work design modes change as organizations move from primarily onsite to a remote or hybrid work format.

5.2 | Practical implications

Workers have increasingly demanded more substantial changes to how work is designed, and the COVID-19 pandemic has provided a major opportunity for organizations to rethink their current work design and adapt to more flexible needs. To that end, the proposed typology assists managers to understand how work design can be used as a strategic tool to change their organizations according to the requirements and affordances of the new world of work. First, the choices regarding the degree of interdependence and autonomy in the organization of work activities—while certainly interrelated—do not necessarily have to shift concurrently. Because organization-defined work design is still prevalent, managers need to decide how best to move away from this model. My typology suggests two pathways: an organization may either increase the level of external interdependence by adopting a formalized external work design and by drawing more heavily on externalized labor, or it may increase the level of work autonomy, thereby shifting to a self-directed internal work design and handing over increased decision authority in work roles to staff. A more radical shift involves relaxing both restrictions regarding external work interdependence and work autonomy. More self-governing forms of work design will likely appear as start-ups and scale-ups experiment with novel approaches. This will have implications for how gig workers and other independent work arrangements are integrated into an organization’s staffing approach, and will offer managers a glimpse of how their own work design may evolve.

<table>
<thead>
<tr>
<th>TABLE 2</th>
<th>Future research directions.</th>
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<tbody>
<tr>
<td><strong>Research focus</strong></td>
<td><strong>Research questions</strong></td>
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<tr>
<td>Work design modes</td>
<td>Which of the four work design modes can be adopted simultaneously?</td>
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<td></td>
<td>What other factors influence an organization's choice of its principal work design mode, including strategic, labor market, and wider institutional considerations?</td>
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<tr>
<td></td>
<td>Are there additional distinct work design modes that organizations can draw on?</td>
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<tr>
<td>Shifts in work design</td>
<td>How do organizations move from one work design mode to another?</td>
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<td></td>
<td>Which organizational and workforce characteristics influence the direction and speed of the shift?</td>
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<td></td>
<td>At what point and in which sequence do the HR practices shift as the organization moves from one mode to another?</td>
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<td></td>
<td>Which practices require most urgent adaptation as an organization moves from one mode to another? Do different trajectories exist along which HR practices are reconfigured?</td>
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<tr>
<td>HR system design</td>
<td>What do effective HR systems look like in a self-governing work design mode?</td>
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<td></td>
<td>What HR practices are necessary to foster and enable self-development, peer feedback, and self-coordination inherent in self-directed internal and self-governing work design modes?</td>
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<tr>
<td>Work format</td>
<td>To what extent do the work design modes change as organizations move from primarily onsite to a remote or hybrid work format?</td>
</tr>
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<td></td>
<td>What are the implications for the design of HR practices in each work design mode according to differences in work format?</td>
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</table>
A second decision involves which pathway an organization should take as it moves away from organization-defined work design. This will depend on relevant labor market conditions, such as talent availability and existing skill levels. For example, Haier’s decision to acquire New Zealand appliance maker Fisher & Paykel was not only driven by the latter’s technological expertise but also by the fact that the acquired employees were already used to self-managed teams, which softened the transition to Haier’s work design (Reiche et al., 2017). Established organizations may similarly need to assess the capability and willingness of their staff to move to a more autonomous work design compared to drawing on externalized labor. Maintaining permanent staff instead of using temporary contracting may be particularly important for strategic work activities. In addition, each ideal type comes with its own HR-related advantages and disadvantages that need to be carefully weighed. For example, while a formalized external and a self-governing work design may provide a constant inflow of new ideas and more flexible access to workers, the organization also sacrifices control over its externalized workforce, which makes it vulnerable to losing knowledge and intellectual property.

Finally, organizations need to carefully plan how to move from one ideal type to another. Instead of shifting the entire work design, organizations may start by reconfiguring individual units, resulting in the coexistence of multiple modes of work design. A more hybrid approach is to simultaneously operate using two work design modes to avoid having to disrupt the entire workforce while also testing alternative modes, as companies like Google and Amazon are doing with their large share of temporary workers and contractors.

To conclude, our traditional conception of work design has prevented organizations from transforming their modes of operation according to the requirements and expectations of the new world of work. The proposed typology can help work design and HRM scholars refine their theoretical propositions, strengthen their empirical sampling strategy, and ultimately guide corporate practice in innovating the very nature of how work gets done.

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