

REVIEW ARTICLE

Gig work and gig workers: An integrative review and agenda for future research

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Summary

Gig workers have become an important component of the contemporary workforce and have generated extensive interest among researchers. The purpose of this article is to provide an integrative review of the literature on gig workers. Consistent with the more recent studies, we adopt a broad definition of gig work, which is characterized by the temporary nature of the work, project-based compensation, work flexibility, and non-membership in an organization. We first discuss the major themes in the literature based on an input–process–output framework. Specifically, we review what factors drive individuals to engage in gig work, how gig work impacts gig workers based on four theoretical approaches, and what outcomes individuals experience as a result of engaging in gig work. Based on the literature review, we highlight six future research agendas. We also discuss practical implications for gig workers, traditional organizations, digital labor platforms, and society.

KEYWORDS

contingent workers, gig work, gig workers, non-traditional work arrangements, sharing economy

1 | INTRODUCTION

The past few decades have witnessed significant changes in the nature of work and employment (Barley et al., 2017). An increasing number of individuals have begun to turn away from traditional forms of employment and to rely on the marketplace for work (Barley & Kunda, 2006). According to a recent McKinsey's American Opportunity Survey (AOS) conducted in 2022, 36% of US laborers work independently outside of organizations, up from their estimate of 27% in 2016 (Dua et al., 2022). As a recent trend, the emergence of digital labor platforms, such as Upwork and Uber, has been transformative in that they provide an alternative for people to find paid work at their convenience (Gerwe & Silva, 2020). This global trend of increasing gig work opportunities is changing the nature of work and impacts people from a variety of occupations with a wide range of skill levels (Manyika et al., 2016; Spreitzer et al., 2017). Some gig workers rely on gig work as their primary source of income, whereas other gig workers

take up gig work as an additional income source beyond their full-time jobs.

The increased prevalence of gig work brings significant challenges to all parties in the contemporary economy. First, digital labor platforms and traditional organizations interested in hiring gig workers have limited guidance on how to manage gig workers, who differ from traditional employees on multiple dimensions such as job autonomy, financial insecurity, and career path uncertainty (Ashford et al., 2018; Cropanzano et al., 2023). In most countries, gig workers are classified as independent contractors who claim short-term contracts voluntarily through labor intermediaries such as digital labor platforms and staffing agencies (Kaine & Josserand, 2019). Gig workers complete short-term contracts and are paid per contract. Given the difference between employees and gig workers, past research on how to effectively manage and motivate workers may not readily apply to gig workers. Second, organizations not currently utilizing gig workers are faced with the challenge of managing employees who may be juggling

side hustles, namely secondary jobs elsewhere, outside of or even during their typical workday (Sessions, Nahrgang, Baer, & Welsh, 2021; Sessions, Nahrgang, Vaulont, et al., 2021). This has been a particular concern since the onset of the COVID-19 pandemic. The flexible telecommuting and work-from-home policies adopted by many organizations in response to the pandemic have resulted in the unintended consequence that side hustles have become much easier (e.g., Feintzeig, 2020). The ease of access to side hustles has made it a problem many organizations are currently facing and need to tackle urgently. Third, there is little guidance for gig workers on how to navigate and thrive in the gig economy (see Ashford et al., 2018 for a notable exception). Although they enjoy higher job autonomy, gig workers suffer from higher levels of job insecurity, financial instability, career path uncertainty, and possibly social isolation (Ashford et al., 2018). Researchers have also argued that engaging in gig work constrains workers from accumulating knowledge and skills that can promote their job market mobility and value (Caza et al., 2022), leading to the question of how engaging in gig work may impact individuals' long-term career trajectory.

Given these challenges, it is no surprise that research on gig workers has increased in the past decade (e.g., Petriglieri et al., 2019; Sessions, Nahrgang, Baer, & Welsh, 2021). However, research on this burgeoning topic is scattered in different disciplines (e.g., marketing, hospitality, sociology, labor relations, and management) where theoretical approaches, methodologies, and terminologies differ considerably, making it difficult for scholars to synthesize research insights across disciplines. The increased interest in gig workers has led to some initial synthesis of the literature, with a focus on the differences between traditional work and gig work and how gig workers should respond to these differences (e.g., Ashford et al., 2018; Cropanzano et al., 2023) and the different types of gig workers (e.g., Spreitzer et al., 2017; Watson et al., 2021). In sharp contrast, the majority of organizational behavior theories have been developed based on standard employment contracts involving employees who work in organizations with relatively long-term relationships (Ashford et al., 2007; Brawley, 2017). As management scholars begin to pay increased attention to gig workers and online labor platforms (e.g., Kuhn & Maleki, 2017), it is time that we conduct an integrative review of the studies on gig workers; draw from major organizational behavior approaches to explicate the input, process, and output of gig work; and identify potential contextual boundary conditions.

In this integrative review of existing research on gig workers, we examine major themes of gig work and discuss how existing organizational behavior theories are relevant to this area. We focus on a few issues that differentiate our review from recent work on this topic (e.g., Ashford et al., 2018; Cropanzano et al., 2023; Spreitzer et al., 2017; Watson et al., 2021). Specifically, we aim to (1) conduct a comprehensive literature review on gig work and identify the major themes in the gig work literature to understand the key input, process, and output of gig work; (2) integrate these findings and research questions with major organizational behavior approaches on work motivation, cognition, social exchange, and affect; (3) build on recent

developments to propose thematic future research agendas that can move the field forward; and (4) provide evidence-based recommendations on practice for various constituents involved in the gig economy.

Our timely review contributes to the literature in terms of theory and practice. From a theoretical perspective, it is informative to assess whether research on gig workers conforms to cumulative knowledge developed on traditional workers. It is important to understand the applicability of existing organizational behavior theories to gig workers and examine new questions specific to gig workers. We aim to move the field forward by identifying important theory-driven questions. From a practical standpoint, as gig work is gaining steam in the current economy (Haynes, 2020; ILO, 2021), the practical recommendations from our review can prepare organizations and individuals for the future of work.

2 | GIG WORK AND GIG WORKERS

Researchers have adopted labels such as *nonstandard work arrangement*, *alternative work arrangement*, and *contingent work* in the literature to examine work arrangements outside traditional organizations. For example, workers engaging in nonstandard work arrangements may include independent contractors, on-call workers, temporary help agency workers, and workers provided by contract firms (Ashford et al., 2007). As the so-called *nonstandard* work arrangements became more prevalent and less dependent on economic downturns, Spreitzer et al. (2017) used the term “alternative work arrangements” to refer to on-call work, agency work, direct contracting, and platform-mediated contracting. In a special issue on the changing nature of work, Barley et al. (2017) used the term *contingent work* to cover a variety of employment relationships including independent contractors, temporary workers, and the newest additions of workers who work through digital labor platforms.

The expansion of digital labor platforms in the last decade has further blurred the boundaries between different alternative work arrangements. For example, on-call workers (e.g., home care providers and plumbers) and professionals (e.g., attorneys, Blanck et al., 2020) may have relied on word-of-mouth and local advertisements to find jobs in the past, but nowadays they often sign up on digital labor platforms to get gigs. In addition, most countries have classified workers who take up gigs through digital labor platforms as independent contractors. According to McKinsey Global Institute (Manyika et al., 2016), approximately one out of four workers have engaged in gig work to some extent.

Researchers have used the term *gig work* to refer to a range of nonstandard employment arrangements. To resolve ambiguity surrounding the definition of gig work, researchers have refined the existing definitions. For example, in a systematic review on the definition of gig work, Watson et al. (2021) observed that gig work has three primary characteristics that distinguish it from other nonstandard workers: (a) project-based compensation, (b) temporary nature of the work, and (c) some level of flexibility in when, how, and where the

work is performed. Cropanzano et al. (2023) argued that gig work is more about how the work is done rather than what is being done. They identified four attributes of gig work, including non-membership in an organization, temporary nature of the work, project- or piece-based compensation, and connection with platforms via intermediaries such as staffing agencies or digital labor platforms. As Campion et al. (2020) argued, most jobs can be “gigged” by decomposing a job position to tasks.

In our review, we adopt the more inclusive view of gig work from these recent reviews (e.g., Cropanzano et al., 2023; Watson et al., 2021) and consider digital labor platforms as a means of finding gig work. According to Cropanzano et al. (2023, p. 494): “Gig work is labor contracted and compensated on a short-term basis to organizations or to individual clients through an external labor market.”

As Watson et al. (2021) discussed, besides the primary characteristics shared by all gig work, certain secondary characteristics, such as technologically enabled networks, remote work, and agency-based work, are only common to some but not all gig workers. Adopting Cropanzano et al.'s (2023) inclusive definition of gig work enables us to cover not only workers on large-scale digital labor platforms such as Uber and Upwork but also include traditional forms of nonstandard workers, such as temporary and contract workers, musicians, and babysitters. In our review below, we will organize the literature to inform gig work as broadly defined above, and whenever possible, we will discuss the relevance of studies to specific types of gig workers.

3 | LITERATURE SEARCH FOR THE PRESENT REVIEW

We conducted a comprehensive and extensive literature search. First, we searched on Web of Science, PsycINFO, Business Source Complete, and ProQuest Dissertation and Theses with a combination of two sets of keywords. The first set of keywords are associated with gig economy including gig economy, sharing economy, gig work, on-demand work, contingent work, temporary work, independent work, crowd work, freelance, and multiple jobholder. The second set of keywords are associated with the research topics that focus on gig workers. These keywords include work design, work identity, work autonomy, psychological contract, trust, commitment, well-being, satisfaction, attitude, emotion, mood, involvement, justice, fairness, personality, stress, work family, human capital, human resource, leadership, management, motivation, turnover, counterproductive, citizenship, performance, embeddedness, full-time, career, team work, communication, conflict, and withdrawal behavior. Second, we conducted forward and backward citation searches on related conceptual review articles (e.g., Ashford et al., 2007; Ashford et al., 2018; Cropanzano et al., 2023; Spreitzer et al., 2017; Watson et al., 2021). In total, we identified 908 initial records. We screened the abstract of each paper to check its relevance to the present review and identified 410 articles for subsequent coding.

4 | THEMES AND ISSUES IN THE GIG WORK LITERATURE

In this section, we review the major themes and issues that emerged in our literature search. We adopt an input–process–output framework to systematically organize the literature. First, we identify three major features of gig work as contextual factors that set it apart from traditional employment. With this backdrop, we discuss the input to understand who adopts gig work and the reasons behind their decision to engage in gig work. Next, in terms of process, we review gig workers' psychological processes under four major approaches in the organizational behavior literature, including motivational, social/relational, cognitive, and affective approaches. Doing so enables us to establish a connection between the gig work literature with existing organizational behavior theories. Finally, in terms of output, we focus on major outcomes of work behaviors and performance, health and well-being, career, and impact outside of gig work domain. We present an integrated model of gig workers in Figure 1. Figure 1 is not an exhaustive model but serves as a framework to integrate and synthesize key findings regarding what we know about gig work and gig workers. We also highlight future research agendas in the most relevant areas of this framework.

4.1 | Contextual factors: background characteristics of gig work

Researchers frequently reference three major features of gig work that present unique opportunities and challenges for gig workers, including structural differences between gig work and traditional work, features of labor intermediaries, and opportunities for multiple jobholding. These contextual features provide the important background to understand individuals' engagement in gig work, as characteristics such as job autonomy, job insecurity, and ease of multiple jobholding directly influence gig workers' experiences and behaviors.

4.1.1 | Structural differences between gig work and traditional work

Compared with traditional workers, gig workers generally face higher financial instability and job insecurity, higher autonomy, higher career uncertainty, higher work transience, and higher physical and relational separation (Ashford et al., 2018). Among these key differences, the higher work autonomy could be considered a major benefit of doing gig work, while most others represent challenges. Some workers choose to work in the gig economy because they actively seek autonomy and some even avoid working in traditional organizations due to the lack of freedom (Ashford et al., 2007; Caza et al., 2022; Spreitzer et al., 2017). However, work autonomy might be a mirage in some instances. Gig workers on digital labor platforms are oftentimes managed by strict algorithms and thus have limited control during the

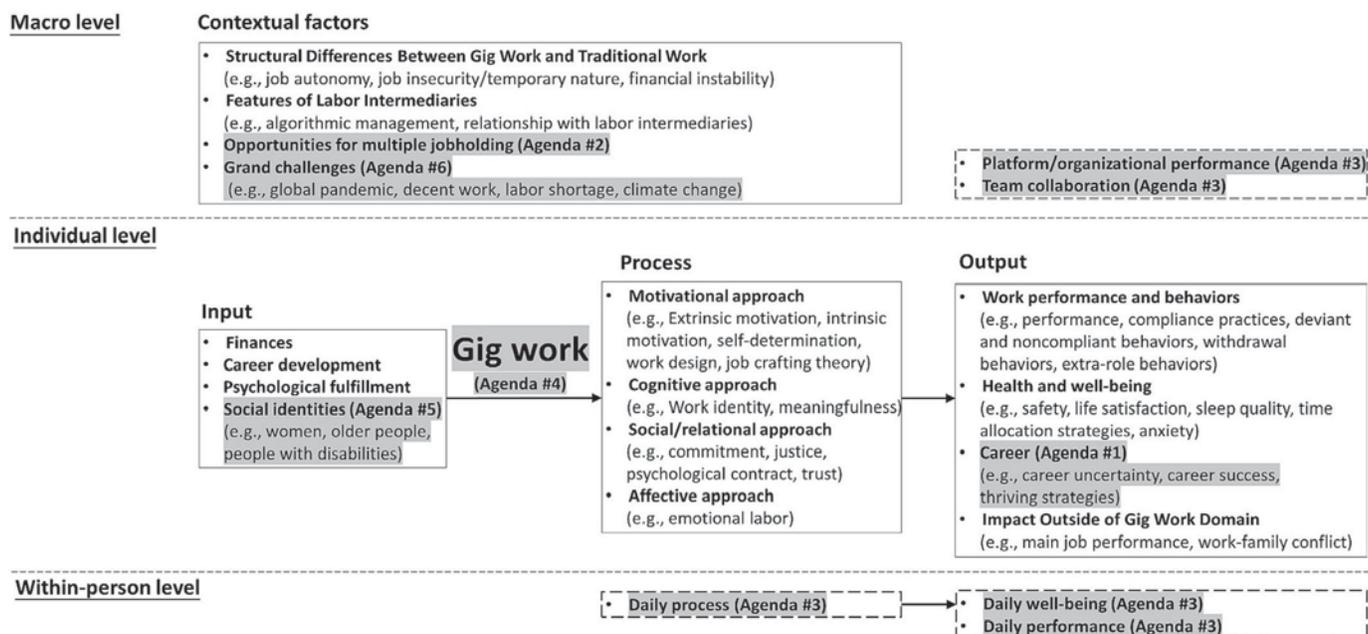


FIGURE 1 Framework of the gig work process. Note: Shaded texts indicate future research agendas.

contract completion process (Cameron & Rahman, 2022). Regarding financial instability, Rodgers et al. (2014) found that over one third of independent workers experienced difficulty getting paid even with contracts; they were paid late, underpaid, or even never paid. Gig workers also have limited power to negotiate pay with digital labor platforms and are vulnerable to exploitation (Auer et al., 2021). Moreover, gig workers are often classified as independent contractors, whose legal status differs from traditional employees with full-time appointments in organizations and offers limited protections from employment and labor laws (Dubal, 2017).

Gig workers also include short-term contract workers, temporary workers, and agency workers who work in traditional organizations as temporary helpers to complement their employees. Researchers have examined how these employment contexts shape their work experiences. Contracts with contingent workers typically include a predetermined expiration date and do not indicate long-term employment, and as a result, organizations tend to assign contingent workers to perform peripheral work, leaving contingent workers less likely to be central or indispensable to business functioning (De Stefano et al., 2019). For example, Bidwell (2009) studied how organizations treated contractors and employees differently. He found that organizations were more likely to assign contractors to roles that were less critical to the firm and that did not require knowledge of the business.

4.1.2 | Features of labor intermediaries

Although gig workers could find work independently, it is quite often that they find work through labor intermediaries. Labor intermediaries (e.g., staffing agencies and digital labor platforms) mediate between workers and clients and assume roles in hiring, matching, and

compensation (Bonet et al., 2013). Beyond the traditional work in organizations, people may manage and perform their work through labor intermediaries.

Traditional labor intermediaries include staffing agencies that collaborate with traditional organizations to provide them with contemporary, contingent, and temporary workers as needed. They typically assume the roles of initial screening of workers, payroll, and employment taxes (Bidwell & Fernandez-Mateo, 2008). Organizations hire and retain core employees with trusted social relationships and long-term contracts but hire temporary employees through labor intermediaries to complete peripheral work, with these workers holding uncertain expectations (Robinson, 1996). The resultant triangular relationship among workers, clients (e.g., individual customers or organizations), and labor intermediaries represents a departure from the traditional two-way relationship between workers and organizations and may lead to more complex issues such as three-way conflicts and ambiguous responsibilities.

Different from traditional staffing agencies, digital labor platforms manage gig workers via algorithmic management (Kellogg et al., 2020; McDonnell et al., 2021). Digital labor platforms are transformational and create large-scale and efficient marketplace for gig workers (Manyika et al., 2016). Fundamental to platforms, algorithms undertake the role of human resource management in traditional organizations (Duggan et al., 2020; Wood et al., 2019). Gig workers primarily interact with platforms via websites or apps, rather than with human beings. Based on historical data and real-time supply and demand data, algorithms in platforms can automate tasks such as recruitment, task assignment, performance evaluation, and compensation. Digital labor platforms may also adopt a gamified approach, namely integrating into algorithmic game-like elements (e.g., competition, rule-following, rewarding task completion, punishment, and advancement

measured in levels) to control work behaviors of gig workers and regulate labor supply (Van Doorn & Chen, 2021). Meanwhile, algorithmic management is often criticized for its lack of transparency, even being compared to an “invisible cage” (Rahman, 2021). For example, algorithms often adopt surge pricing—offering a higher price for task completion during periods with greater customer demands (peak hours) or poor work conditions (bad weather)—but such an attempt to regulate the supply–demand relationship can be perceived by workers as lacking transparency and fairness (e.g., Elfakhani, 2017; Guda & Subramanian, 2019; Rosenblat & Stark, 2016; Shapiro, 2018). In addition, researchers also criticized algorithmic management for perpetuating low pay, social isolation, irregular working hours, and exhaustion (Wood et al., 2019).

4.1.3 | Opportunities for multiple jobholding

As the gig economy keeps growing in scale, more and more people participate in the gig economy to supplement their primary income (e.g., Churchill & Craig, 2019; Doucette & Bradford, 2019; Glavin, 2020; ILO, 2021) and become multiple jobholders. For example, Glavin (2020) compared national surveys conducted in Canada regarding multiple jobholding and found that almost 20% of workers in 2019 reported multiple jobholding which was 30% higher than the data from 2011. Digital labor platforms provide new opportunities for people to undertake secondary jobs (Campion et al., 2020). People with traditional full-time jobs can take up gig work through digital labor platforms in their spare time (e.g., Sessions, Nahrgang, Vaulont, et al., 2021) and even while they are on their full-time jobs.

4.2 | Input: who work as gig workers and why

Given the structural differences between traditional jobs in organizations and gig work, it is natural to ask why people take up gig work rather than traditional work arrangements. Our review of the literature reveals three major categories of reasons, including financial reasons, psychological fulfillment, and career development factors.

4.2.1 | Finances

Among them, financial reasons have received the most attention. Working on digital labor platforms provides an easily accessible source of employment income (e.g., Alif et al., 2020; Churchill & Craig, 2019; Hoang et al., 2020). International Labor Organization (ILO) found in a survey that 32% of gig workers who worked via digital labor platforms were to “complement pay from other jobs” and about one third of them relied on gig work as their main source of income (Berg et al., 2018). A research report by McKinsey Global Institute found that about 30% of gig workers had to adopt gig work to meet financial needs despite preferences for traditional employment (Manyika et al., 2016). The drive to gain income through gigs is

not limited to low skills positions, as people who work in professional positions such as lawyers also utilize gig work for financial gains (Yao, 2020). Some workers view gig work as a more permanent source of income (Valente et al., 2019), as there may be stronger financial incentives to take on gig work than traditional employment. For instance, contracting workers could receive higher pay than their counterparts in traditional organizations (Kunda et al., 2002).

4.2.2 | Psychological fulfillment

People also enter gig work because of their preferences. Challenging many popular myths associated with gig work, Manyika et al. (2016) showed that gig work is not only attractive to low-skill low-income workers but is also preferred by many professionals such as doctors, lawyers, accountants, and designers. Their preference could be explained in part by the ability to work from home (Berg et al., 2018) and the flexibility gig work offers (Yao, 2020). With survey data from Australia, Churchill and Craig (2019) found that flexibility was an important reason for both men and women to work as gig workers, with women expressing stronger preference than men to fit gig work around their schedule. In a survey of 307 independent consultants, McCallum et al. (2019) found that 90% of them chose this work arrangement because they could have more control over their time and gain more flexibility. In addition, preference for gig work may be tied to personal interest and potential enjoyment in gig work. For example, Keith et al. (2020) found that MTurk workers who treated MTurk as a job were more likely to report enjoyment.

4.2.3 | Career development

The decision to adopt gig work is also related to workers' career development preference and experience. Workers' assessment of their competencies and capabilities is one reason for them to work as gig workers (Gandhi et al., 2018). Workers confident in their competence are more willing to forego the benefits of job security and stability in traditional organizations and adopt work as independent consultants (McCallum et al., 2019). Similarly, Bidwell and Briscoe (2009) found that information technology workers whose careers are advanced are more likely to work and stay as independent contractors, as they have more power in the market and have more to gain by contracting (Bidwell & Briscoe, 2009). Negative events in the organizational settings could trigger or force traditional workers to move to contracting. These events could range from unpleasant experiences with organizational politics (Kunda et al., 2002) to potential loss of traditional employment such as downsizing (Kunda et al., 2002) and involuntary separation (Bidwell & Briscoe, 2009). Matthes (2021) highlighted demands–abilities fit as a key perspective to understand motives behind taking up different types of gig work. He argued that the congruence between the environment demands and individual abilities which are broadly defined as skills, knowledge, and energy could predict the choice of taking up gig work.

In sum, the above reasons are consistent with the push versus pull career motivation framework (Bretz et al., 1994). First, very intuitively, our review suggests that people take up gig work because they treat it as a source of income and an employment opportunity when traditional employment is not available or appealing enough. These individuals are pushed to engage in gig work because they lack viable alternative employment opportunities. Second, other people are pulled to gig work because they enjoy the flexibility and work-life balance associated with gig work, or because their professional abilities and competencies enable them to adopt gig work in pursuit of higher income prospects. However, with few exceptions, researchers have not directly examined how these driving factors and other individual-level factors (e.g., personality) relate to outcomes and through what mechanisms, which makes it difficult to understand how individual factors could lead to different outcomes in the context of gig work.

4.3 | Process: unpacking gig workers' motivational, cognitive, social/relational, and affective experiences

To synthesize the fragmented literature on gig workers, we organize our review with the following four theoretical approaches: motivational, cognitive, social/relational, and affective. Within each approach, we review key theories commonly utilized in the study of gig work and identify theories that have broad applications and implications for gig work. We briefly describe these theories below and highlight how they are relevant to the understanding of well-being and behaviors of gig workers, drawing from relevant mechanisms to explain the outcomes of gig work. We selected these four approaches for two primary reasons. First, motivational, social/relational, cognitive, and affective approaches have frequently been adopted in existing work to understand employee behaviors and experiences (e.g., Erez & Arad, 1986; Inceoglu et al., 2018; Lazarus, 1991; Organ & Konovsky, 1989; Paulus & Brown, 2007). These theoretical approaches are relatively distinct from and complementary to each other. Second, the existing literature on gig workers has used these four approaches extensively in understanding gig workers' experiences. Of the 144 articles that involved theoretical approaches, 49% of them examined motivational aspect of gig work, 28% examined cognitive aspect, 28% examined social and relational aspect, and 9% examined affective aspect.

4.3.1 | Motivational approach

Given the differences between traditional work and gig work, it is natural to ask, what motivates gig workers to perform their work well? As seen in our earlier review, financial considerations are a key driver for people to engage in gig work. Intuitively, people tend to believe that gig workers work primarily for monetary rewards, given the transactional nature of gig work. Consistent with this belief, algorithms on digital labor platforms are typically designed with a focus on the extrinsic motivator of monetary rewards to prioritize efficiency, while

gig workers' behaviors tend to be heavily controlled by algorithms and rating systems (Cameron & Rahman, 2022).

Compared with the monetary and extrinsic perspective, more studies draw from motivational theories to understand gig workers. Rockmann and Ballinger (2017) used self-determination theory to examine motivation of gig workers in a professional service firm that delivers service virtually to clients. They found that psychological needs fulfilled by the on-demand work developed intrinsic motivation in gig workers, which further led to their identification with the professional service firm. They concluded that the motivation of gig workers should go beyond extrinsic motivation and a transactional perspective. In a similar vein, Jabagi et al. (2019) argued that the motivation of gig workers entails more than carrots and sticks. Self-motivation of gig workers can also contribute to platforms' long-term success. They argued that self-determination theory is especially important in the context of gig work given the uniqueness of the work context. They proposed that digital labor platforms should design gig work based on implications from job characteristic theory to better meet gig workers' needs for competence, relatedness, and autonomy, which will lead to higher intrinsic motivation. Based on goal-setting theory, Açıkgöz and Latham (2022) found that among Uber drivers, the self-set rather than assigned or participative goals were positively related to service performance through improvisation.

Work design theory¹ (Hackman & Oldham, 1975; Morgeson & Humphrey, 2006), which refers to the structure, content, and configuration of work tasks and roles, is a particularly relevant theory in the context of digital labor platforms as it captures how gig work managed by algorithms is different from traditional work. Work design theory can help understand how to motivate workers through effective job design and its impact on digital labor platforms and gig workers. Often within platforms' control, task characteristics such as task variety, feedback, and work scheduling autonomy can have a direct impact on gig workers. For example, Watson et al. (2021) proposed that job resources such as work scheduling autonomy, decision-making autonomy, workplace social support, and task identity are related to gig workers' motivation. In a conceptual paper, Schroeder et al. (2021) developed a theoretical framework to explain the importance of work design in gig work. Based on job characteristics theory (Hackman & Oldham, 1975; Morgeson & Humphrey, 2006), they proposed that certain task characteristics (e.g., autonomy and task variety) and knowledge characteristics (e.g., job complexity and problem solving) can motivate gig workers because gig workers may perceive gigs as being more meaningful and thus feel more empowered. Similarly, clarity and structure of one's work role is important for workers in the film production industry who work and coordinate in temporary organizations (Bechky, 2006). Bechky (2006) found that frequent feedback to each other contributed to clear and consistent understanding of role structures and role expectations which served as key factors to

¹Although Morgeson and Humphrey (2006) expanded the traditional focus of job design perspective to include social aspects of the job (e.g., social support), work design theory has typically been invoked in the gig work literature to understand the motivational impact of task characteristics. We thus include work design theory in this section.

coordinate these film projects under severe time pressure and also maintain continuity across different projects in the long term.

In contrast to work design theory, job crafting adopts a bottom-up perspective and focuses on how workers actively initiate changes in various features of their work context (Wrzesniewski & Dutton, 2001). Wong et al. (2021) examined the role of individual job crafting and collaborative job crafting in motivating gig workers. They found that higher individual job crafting motivated gig workers to stay resilient and more committed to their careers, while high collaborative job crafting compensated for low individual crafting efforts.

In sum, despite the intuition that gig workers are motivated to work for monetary and extrinsic factors, researchers have revealed the complexity of gig workers' motivations with the content-based, context-based, and process-based motivation theories. However, researchers can develop a more nuanced and thorough understanding of gig workers' motivations. For example, work design theory has received the most research attention, likely because of the salience of the work autonomy dimension in the design of gig work. As a contrast to work autonomy, other dimensions of work design, such as skill variety, task identity, and task significance, have received limited attention in the context of gig work. Other theoretical perspectives, such as job crafting and leader influence, also show promise in illuminating gig workers' effort and dedication.

4.3.2 | Cognitive approach

Unlike traditional workers who tend to have career plans and aspirations, gig workers need to deal with precarious work identities and uncertainty in their career trajectories (e.g., Caza et al., 2022; Spreitzer et al., 2017). It is important to understand how gig workers *perceive* gig work, aside from a source of economic returns. Our review revealed that research that investigated cognitive aspects of gig work spanned work identity, meaningfulness, and perceptions unique to gig work.

Work identity of gig workers has received research attention because gig workers' work contexts are quite different from work in traditional organizations, especially in terms of interpersonal relationships and organizational membership (Barley et al., 2017). Work identity is the collection of meanings developed based on individual characteristics, group membership, and social roles (Ashforth et al., 2001) attached to oneself by the individual and others in the work context (Gecas, 1982). Researchers have sought to understand how gig workers develop their work identity and how such work identity influences their work attitudes and behaviors. With a qualitative study of independent workers, Petriglieri et al. (2019) found that in the absence of organizational membership, gig workers developed unique social contexts for themselves to make sense of their activities. They did so by cultivating connections to routines, people, places, and a broader purpose to help them produce work that contributed to their self-identity. With a focus on app-based gig workers, Anicich (2022) studied how workers constructed narrative identities under algorithm management in the on-demand economy. Anicich (2022)

found that algorithm management fostered a sense of depersonalization that led to lack of interpersonal accountability. In response, workers developed “narrative flexing” which gave them high interpretive flexibility and low interpersonal accountability in such dynamic and identity-threatening situations. With such a strategy, workers could selectively emphasize atypical positive or negative experiences to obtain psychological relief and construct their work identity. During the COVID-19 pandemic, grocery delivery shoppers were suddenly hailed as heroes by the public which contributed to their understanding of work identity as gig workers (Cameron et al., 2022). Padavic (2005) studied why contingent workers still worked hard to support managerial goals in a context in which they did not have organizational membership. She found that contingent workers were driven to work hard because of their own identity and self-concept rather than deriving their identities and self-worth from their jobs.

Besides work identity, researchers have also studied how gig workers' perceived meaningfulness on their gigs can influence their work outcomes. Cameron (2022) studied gig workers in the ridesharing sector to understand how they create meaning in their work, and how such meaning influences their work engagement. She found that some drivers treated their driving gigs as workplace games that they find meaningful, controllable, and winnable. In the relational game, workers strived for positive customer ratings by offering gifts and extra services, whereas in the efficiency game, workers strived for maximizing the money they earn per time spent by minimizing any extra behavior. Playing with these “games” resulted in different foci of engagement in gig work. With a sample of professional gig workers during the COVID-19, Granger et al. (2022) showed that work meaningfulness served as an important personal resource that could help gig workers deal with the environmental jolt and maintain good levels of cognitive and affective well-being. In a conceptual paper, Schroeder et al. (2021) proposed that gig workers' perception of meaningfulness is an important mechanism that explains how job design characteristics impact their work outcomes. In a study of professional cooks who transitioned from operating pop-up (temporary) and underground restaurants to opening a standard food business, Demetry (2017) found that these cooks used different vocabularies to describe their role identity. They used a “labor of love” vocabulary that emphasized the experimental and hobby-like nature of their ventures when they worked as a freelancer, whereas they transitioned to a “professional” vocabulary when they formally opened a restaurant.

Researchers have also started to examine how perceptions unique to one's gig work may impact workers' experiences and behaviors. For example, Cameron et al. (2021) studied how the perception of work-related risks impacted the behaviors of gig workers during the COVID-19 pandemic. The ideal worker literature suggests that ideal workers devote themselves to work and are available any time. However, gig workers may experience conflicts between ideal worker expectations and their fear of risks during the COVID-19 pandemic. Cameron et al. (2021) found that workers who experienced congruence between their risk preferences (e.g., identified risk as inherent or accepted risk considering financial or social benefits) and customers' expectation of ideal workers (e.g., ideal workers should take certain

risks at work) tended to embrace the risks of catching COVID-19 during the COVID-19 pandemic as they could make more money. In contrast, workers who experienced incongruence between their risk preferences and customers' expectations of ideal workers responded through other identity management tactics, such as passing (e.g., changing tasks or customer bases) or withdrawing (e.g., stopping working), to avoid such risks. With two national surveys, Glavin et al. (2021) found that ridesharing drivers had higher levels of powerlessness and isolation perceptions than gig workers working online. Such perceptions of powerlessness and isolation may be related to algorithmic control and distancing strategies that undermine ridesharing drivers' autonomy and social connection.

In sum, work identity and meaningfulness are two important lenses that researchers used to examine the cognitive aspect of gig work. Given that the existing understanding of work identity and meaningfulness is based in the context of formal employment (Miscenko & Day, 2016), research on gig work has revealed the challenges gig workers face in constructing their work identity and meaningfulness as nonmembers of organizations. More work is needed to understand other cognitive aspects of gig workers, such as whether and how gig workers develop identification with the labor intermediaries that they work for, as well as the role of social identity threat in the formation of their work identity. In addition, research has not examined how the different underlying mechanisms interact with each other and jointly influence gig workers' behaviors. For example, it is possible that gig workers' cognition and motivation may jointly influence their behaviors: gig workers with stronger work meaningfulness and intrinsic motivation may perform better than others.

4.3.3 | Social/relational approach

The unique transactional nature of gig work and its lack of social and relational bonds make it important to consider the social and relational perspective. Social exchange theory, which suggests that the relationship between two parties is based on a process of cost–benefit analysis (Blau, 1964), provides a lens to understand gig workers' interactions with labor intermediaries. When gig workers have positive experiences with their tasks and labor intermediaries, they are more likely to reciprocate with positive attitudes and behaviors. Characteristics of the exchange between gig workers, clients, and labor intermediaries have given rise to the study of commitment, justice perceptions, psychological contract, and trust in the literature, which have been connected to outcomes such as task performance and citizenship behavior. In the gig work context, researchers are especially interested in whether these traditionally studied social relationships still exist and whether they matter to gig workers.

Although the interactions between gig workers and the digital labor platforms are mostly impersonal, burgeoning research suggests that gig workers still develop a commitment to platforms. Bucher et al. (2024) found that gig workers have both alienation perceptions (e.g., powerlessness, meaninglessness, and social isolation) and platform commitment. They found that workers who have higher levels of

alienation tend to develop stronger platform commitment possibly because they have fewer alternatives and face high costs of switching platforms. Within traditional firms, the social relationship between gig workers and client organizations is also complex. Galais and Moser (2009) found that the relationship between commitment and temporary workers' well-being is somewhat complex. While temporary workers' commitment towards the client organization was positively related to workers' well-being when they work there, the commitment–well-being association became negative when temporary workers experienced reassignment.

Researchers also applied justice theories to understand how gig workers relate to labor intermediaries and hiring organizations. Fieseler et al. (2019) studied fairness perceptions, namely distributive fairness, procedural fairness, and interactional fairness, in the context of MTurk workers and concluded that gig workers also develop these fairness perceptions in their work context. Although pay does not impact the performance of crowdsourcing, it does impact justice perceptions of workers (Auer et al., 2021). As these perceptions are associated with the design of the work system, Fieseler et al. (2019) offered ideas for platforms to improve workers' fairness perceptions, such as establishing a system of conflict resolution that would allow some form of worker representation. Camerman et al. (2007) examined justice perceptions among contingent workers. They found that the four-factor model of justice (i.e., distributive justice, procedural justice, interpersonal justice, and informational justice) remained valid for contingent workers and was related to their work attitudes. Specifically, they found that contingent workers cared about informational justice more than expected. This indicates that employers who hire contingent workers should not simply focus on distributive justice to pay them adequately but should also pay particular attention to how they offer information access and adequate explanation to these workers. Pfeiffer and Kawalec (2020) found that crowdworkers used similar standards of justice regarding their work mediated via digital labor platforms and conventional employment, in specific areas such as task clarity and performance evaluation transparency.

Besides commitment and justice perceptions, researchers recently began to examine the role of psychological contract. Cropanzano et al. (2023) argued that the psychological contract theory is fundamental in understanding gig workers, as the traditional psychological contract between organizations and employees does not apply to the relationship between gig workers and the staffing intermediaries. Both gig workers, staffing intermediaries, and organizations that hire gig workers need to adapt to the new psychological contract and adjust their expectations and behaviors. Lemmon et al. (2016) found that psychological contract theory could explain the relationship between organizations' negotiation behaviors and task performance. Tompru and Lee (2022) found that algorithmic management had an impact on workers' psychological contract. Compared with human agents, algorithmic agents (i.e., recruiting software) resulted in perceptions of lower employer commitment when delivering the organization's socio-emotional support for employees' growth and well-being. This study highlighted the importance of understanding the complex question regarding how algorithms may support or harm the relationship

between digital labor platforms and workers, as digital labor platforms heavily rely on algorithms to manage gig workers.

As trust has been fundamental in human interactions, researchers wondered whether trust is important in gig work. In a review, Köbis et al. (2021) noted that in sharing economy, trust is fundamental to multiple parties involved in these activities. For example, workers interact with customers who are strangers to them as well as platform companies who are impersonal to them. In addition, with individuals working in the film production industry, Csillag (2021) found that these gig careerists built social solidarity with others based on trust and feelings of commitment to maintain good teamwork performance to help them maintain a good reputation and keep career continuity.

In sum, the key questions underlying this approach is whether social relationships still matter in the gig work context, given workers' impersonal and temporary affiliation with labor intermediaries and temporary association with other parties they interact with, such as clients and peers. Research indicates that social relationships offer a unique perspective to understand gig workers' experience, as they develop psychological contract, justice perceptions, trust, and commitment as they navigate the temporary affiliations with various parties in the gig economy. With these recent insights, researchers can start exploring how gig workers experience changes in their social and relational ties and perceptions.

4.3.4 | Affective approach

Affects and emotions are an integral aspect of gig work, although they have received relatively limited coverage in the extant literature compared with other perspectives. Several studies have investigated the emotional challenges, especially emotional labor, faced by gig workers. Caza et al. (2022) have therefore included emotional challenges as one of the six major challenges that gig workers face given the relatively high level of emotional turbulence they face in their work.

Emotional labor, the process of managing emotional expressions as part of one's work role, has been characterized as an inner feature of gig work. Research has shown that Uber and Lyft workers often find their work emotionally taxing (Malin & Chandler, 2017) because they have to engage in emotional labor to gain favorable customer ratings (Grandey & Gabriel, 2015; Marquis et al., 2018). Based on interviews with Uber and Lyft drivers, Ladegaard et al. (2022) found that drivers had to deal with their emotions of fear, disgust, anger and worries due to the diverse threats they faced, such as verbal abuse, safety concerns, and potential for low ratings. In the context of personalized care, workers are subject to the risk of "emotionalized relationships" between them and clients in which workers need to make themselves caring and likable to make clients happy and occasionally need to deal with clients' negative emotions. Such emotional work is not mediated by managers or employers, and such intimate emotional encounters may cross the boundaries of work roles that seem unreasonable for many jobs (Macdonald, 2021). Based on labor process theory, Gandini (2019) proposed that emotional labor is at the heart of the labor process in the digital labor platforms because of customer

rating systems. As these systems regulate the social interactions between workers and consumers, workers have to engage in emotional labor to obtain more favorable ratings. Butler and Stoyanova Russell (2018) found that stand-up comedians not only engaged in emotional labor when interacting with customers but also put on necessary emotional displays when they negotiated pay and dealt with conditions of freelance work-related insecurity with multiple employers.

In sum, researchers have mostly approached gig workers' affects and emotions from the vantage point of emotional labor. For gig workers who engage in frequent interpersonal contacts with clients to deliver services, emotional labor can be part of their job. However, much more work is needed to understand affective experiences in gig work, in various topics such as the roles of different discrete emotions, affective events theory, emotional contagion, emotional regulation strategies, and emotional intelligence.

4.4 | Output: outcomes of engaging in gig work

A majority of studies examining outcomes of gig work focus on gig workers' performance behaviors, such as task performance and deviant behaviors. More recently, researchers have also started exploring the health and well-being of gig workers, as well as their career outcomes. In addition, a burgeoning group of studies have examined how multiple jobholders' participation in gigs may impact their performance on their primary jobs. Out of the 76 articles that examined the output, work behaviors and performance had the most coverage in the literature (47%), followed by health and well-being (25%), career (21%), and other domains (17%).

4.4.1 | Work behaviors and performance

Research has found that job performance is composed of three distinct groups of behaviors, including task, citizenship, and counterproductive performance (Rotundo & Sackett, 2002). In this section, we review gig workers' job performance from these three aspects. Gig workers are typically hired to complete specific tasks, and the completion of these tasks, together with the quality of task completion, naturally becomes an important outcome. For gig workers, task completion directly translates into pay, whereas labor intermediaries are interested in ensuring the quality of task completion to maintain and increase their customer base. Rather than monitoring or evaluating performance of each contract, labor intermediaries typically rely on customers to evaluate gig workers' performance. Indeed, gig workers' customer evaluations not only serve as surrogates for their performance ratings but also affect the likelihood of their future orders (Kellogg et al., 2020). Relegating performance evaluation to customers, however, can be problematic because gig workers have limited control over the performance evaluation process (Cameron & Rahman, 2022). Although gig workers may try to provide excellent service to gain positive evaluations, they cannot directly impact

individual customer's evaluation, which may hinge on customers' idiosyncrasies (Cameron & Rahman, 2022).

Within the confines of labor platform apps and algorithms, gig workers develop strategies to maximize flexibility and autonomy, even gaming the system's algorithmic control. With content analysis of 12,294 scraped comments from online freelancers, Bucher et al. (2021) found that gig workers developed distinct anticipatory compliance practices to avoid algorithmic scrutiny and punishment. They used these practices either directly towards platforms (e.g., avoiding words that may trigger scrutiny by algorithms) or indirectly towards customers (e.g., undervaluing their own work to get a favorable rating). Paradoxically, although these practices require extra effort, workers could increase control over their work process. Cameron and Rahman (2022) studied workers' control and resistance in three stages of the service: before, during, and after service. They concluded that workers have stronger control before service but weaker or no control during and after service. As a result, gig workers developed different anticipatory strategies to achieve good ratings, such as calling customers before service to gauge their attitudes and proposing a lower charge in exchange for better ratings.

Gig workers may also engage in deviant and noncompliant behaviors in spite of algorithmic control. For example, as Upwork prefers experienced workers, some newcomers would buy positive reviews, share accounts with friends, or purchase pre-approved accounts with desirable locations (e.g., Europe or the United States) to increase the likelihood of getting contracts (Anwar & Graham, 2020). Workers sometimes withhold output from clients to further game the system (Anwar & Graham, 2020) or sabotage service when experiencing negative customer interactions (Xiongtao et al., 2021). Some noncompliant behaviors are less deviant but can still turn out costly. For example, when gig drivers continue to work despite fatigue, they are faced with increased risk of accidents. Accordingly, Dang et al. (2022) proposed that platforms should detect noncompliant behaviors and adopt an incentive mechanism to reward compliance.

Gig workers may also decide to withdraw from platforms. Maffie (2022) found that as platforms allow customers to get access to organizational power such as directing, monitoring, and evaluating workers, customers may engage in a series of abusive behaviors towards workers, who in turn reduce workers' time allocation to protect themselves. Similarly, Maffie (2018) found that when rideshare drivers experienced conflicts with platforms or customers that were not resolved in a timely manner, drivers would reduce time spent on these platforms or even stop using these platforms altogether. When freelancers could not understand the evaluation criteria for their work, they would find it hard to align their behaviors with the criteria. When this occurred, some freelancers experimented with ways to improve their evaluations, whereas others reduced their engagement on the platform (Rahman, 2021).

Finally, gig workers may also exhibit behaviors akin to extra-role behaviors in traditional employment settings. Cameron (2022) found some platform workers, in an attempt to obtain higher customer ratings, offered gifts and free extra services such as extending physical and emotional support to customers. Sampling from grocery delivery

shoppers, Cameron et al. (2022) found that work identity had an impact on gig workers' extra-role behaviors. Specifically, gig workers who accepted the public moralization of their work during the COVID-19 pandemic were more likely to minimize their extra-role behaviors, whereas those who wrestled with the hero narrative were more likely to do more extra-role helping to earn moral credentials. Among the traditional types of gig workers such as temporary and contingent workers, researchers sought to understand whether they indeed engage in organizational citizenship behavior (OCB, cf. Ashford et al., 2007), with mixed results. Some studies reported that contractors engaged in more OCBs than employees (Ang & Slaughter, 2006; Pearce, 2017), whereas other studies indicated that OCBs are only relevant to some contractors. For example, Finch et al. (2015) found that high performing contractors advocated to other people the organizations they worked for, whereas Feldman and Turnley (2004) found that adjunct faculty members who were forced into contractor roles reported fewer OCBs. These findings were consistent with previous arguments that contractors engage in OCBs with the hope of increasing future contract opportunities (Cabrera & Cabrera, 2005) and that OCBs are relevant only to the high performing contractors who voluntarily seek their contracting roles (Flinchbaugh et al., 2020).

In sum, researchers have identified gig work behaviors and performance that are unique from their counterparts in traditional organizations. Because the process of evaluation differs, influence tactics such as impression management and ingratiation directed towards supervisors to influence performance evaluation outcomes become less relevant for gig workers. Even for gig workers who work in organizations as temporary helpers, their interest in using influence tactics and the importance of ratings become low. In addition, in traditional organizations, researchers have studied how to effectively measure job performance with multiple approaches, such as behaviorally anchored rating scales and 360° ratings. In contrast, the performance evaluation is either unstandardized or ignored for contractors who work in client organizations or oversimplified for digital labor platform workers whose performance mainly relies on customer evaluation. At a more macro level, more work is needed to understand how the individual behaviors and performance could accumulate at the organizational level, contributing to the productivity and profitability of the client organizations or digital labor platforms.

4.4.2 | Health and well-being

Given that gig workers are at a higher risk for traffic accidents, social isolation, schedule irregularity, and burnout, researchers have called for attention to their health and well-being (Keith et al., 2020). Bajwa et al. (2018) discussed gig worker vulnerabilities from three aspects, including occupational vulnerabilities that are related to the type of work they perform (e.g., driving a car, biking, or using computers), the precarious nature of their work (e.g., the unpredictable workload and the lack of health insurance), and platform-based vulnerabilities (e.g., low information transparency and high surveillance).

Flinchbaugh et al. (2020) summarized that contractors in both high-skills (e.g., surgeons) and low-skills roles (off-shore oil drilling workers and service workers) tend to experience more safety concerns than traditional employees. Using data from a national survey in China, Cai et al. (2021) found higher levels of depression in workers without formal employment relationships than those with formal employment relationships. Christie and Ward (2019) found that 42% of the gig drivers they surveyed experienced collisions, with 10% being injured themselves. While they drive, they sometimes violated speed limits due to time pressure and had to use their phones to respond to the app. Crain et al. (2020) developed a conceptual model to understand the antecedents and consequences of gig drivers' sleep, given that drivers may suffer from sleep deprivation and fatigue due to irregular hours and overwork. They proposed that some factors in the on-demand driving context may harm sleep health in terms of sleep duration, satisfaction, efficiency, and timing which further lead to fatigue that may result in safety accidents, injuries, and health issues.

With a representative survey of London Uber drivers, Berger et al. (2019) found that although Uber drivers remain at the lower end of income distribution, they reported higher levels of life satisfaction than other London workers in traditional work arrangements. Berger et al. (2019) found that those who value flexibility and autonomy tend to report higher life satisfaction, whereas those who prefer work as an employee tend to report lower life satisfaction and higher anxiety. This study suggests that gig workers' well-being may very well hinge on non-monetary factors. With survey data from 1190 MTurk workers, Keith et al. (2020) found that workers' motivation to work on MTurk is associated with their well-being. Workers who treated MTurk as a primary income source reported less enjoyment and lower life satisfaction, whereas workers who treated MTurk as a job with more engagement in online communities and a regular work schedule reported more enjoyment.

In addition, research indicates that some level of anxiety is common among gig workers. Butler and Stoyanova Russell (2018) found that stand-up comedians suffer from anxiety and frustration due to financial insecurity. Similar to other self-employed workers, Uber drivers also reported higher anxiety levels than other London workers (Berger et al., 2019). Beckman et al. (2021) surveyed app-based drivers and found that they expressed very high levels of anxiety for infection of COVID-19 as well as a high stress level. Even for people who proactively chose to contract, they also reported anxiety (Kunda et al., 2002; Ozimek, 2017). In addition, digital labor platforms may take advantage of gig workers' anxiety with performance monitoring and surveillance systems. As gig workers' further employability depends on customer evaluations, workers may be anxious to perform well to achieve high customer ratings. Further adding to their anxiety is the fact that the rating metrics and algorithms may not be transparent to them. As such, the rating system serves as an engine of anxiety that shapes workers' ongoing work practices (Chan, 2019; Espeland et al., 2016).

Given the flexibility that gig workers enjoy, researchers also studied their time allocation strategies. Evans et al. (2004) studied how

technical contractors allocate their time and whether they took advantage of the flexibility afforded by their job. They found that most of the contractors worked long hours and rarely adopted a flexible work schedule despite acknowledging the available flexibility. Although their work is not bounded by traditional employment relations, these workers are constrained by the market, as they need to maintain a good reputation. Similarly, Donnelly (2011) found that independent contractors did not take more time off than traditional employees as they were still constrained by project and client demands. Shevchuk et al. (2021) found that because online labor markets are operating 24/7, freelancers work nonstandard hours, such as in evenings, nights, and weekends, to be responsive and adapt their schedules to fit clients' needs. In contrast, Osnowitz and Henson (2016) found that contract workers have better control of work time than organizational employees—not having a fixed organizational membership nor strong social network at work, contract workers may be in a better position to turn down job opportunities and protect themselves from overwork.

In sum, the research findings show that gig work has mixed impact on the health and well-being of workers. On the positive side, gig workers may experience higher life satisfaction if they choose to take up gig work rather than working as regular employees. On the negative side, gig workers faced higher health and safety risks, had higher anxiety levels, and may overwork with irregular schedules. Concerns over the health and well-being of gig workers have been evolving, with far reaching policy and business implications.

4.4.3 | Career

Joining the large body of literature on career choice and development of traditional workers (e.g., Shockley et al., 2016; Smale et al., 2019), researchers have examined gig workers' career implications and ramifications. With a higher level of job autonomy and flexibility, gig workers need to deal with the downsides of lack of structural support from organizations (Ashford et al., 2018). Researchers have identified career path uncertainty as a major challenge to gig workers (Caza et al., 2022). Unlike workers in traditional organizations, gig workers do not know where they will work in the future. Because careers provide a preview for responsibilities, compensation, relationships, and future plans (Barley, 1989; Hughes, 1958), the lack of clear structures of a career in the gig economy make gig workers' career paths unpredictable and risky.

Traditionally, researchers have studied careers both within and across organizations. Organizations play a key role in shaping career paths in traditional organizations as they are responsible for training and promotion, as well as managing the talent pipeline. Recent work on the boundaryless career perspective suggests that workers can take greater initiative over their own career development, including competency development (Forrier et al., 2009; Miles & Snow, 1996). The underlying assumptions of the boundaryless career perspective include the psychological and physical mobility of workers, individuals' independence from employers, and the general benefit from such

mobility. Kost et al. (2020) noted that gig workers are restricted by the career boundaries within and between organizations that prevent them from developing relevant career competencies and thus limit their mobility. The within-organizational boundaries impede gig workers' abilities to work directly with clients beyond the confines of platforms and achieve higher pay and promotions, whereas the between-organizational boundaries constrain gig workers from readily using their expertise to transition into traditional career paths. They argued that new forms of network, community-based, and self-organized human resource management practices are needed to facilitate gig workers' career growth. In addition, Duggan et al. (2020) argued that algorithmic management imposed irremovable boundaries that constrain workers' abilities to develop transferable competencies (e.g., job-related skills, knowledge, career networks, mentoring, etc.) which are indispensable for them to pursue opportunities beyond precarious roles.

As gig workers have limited access to internal job markets for career progression within organizations, researchers began to explore how gig workers can achieve career progression with external job markets. O'Mahony and Bechky (2006) proposed the term "stretchwork" to describe the career development strategy whereby a person bases most of their work on their current skills but includes a small component requiring new skills. Stretchwork is a paradox for gig workers—although gig workers may want to develop new skills while performing gig work, employers prefer those who already have such skills. Based on studies on high-technology contract workers and film production contract workers, O'Mahony and Bechky (2006) found that stretchwork could help contract workers acquire new skills continuously and advance their career outside of organizations. Despite the appeal of stretchwork, Lee, Koval, and Lee et al. (2023) revealed that evaluations of stretchwork contain unintended gender bias. When pursuing stretchwork and adopting expansive work roles, female (vs. male) freelancers are viewed as being less agentic, and as a result, they face a "glass wall" that makes it more difficult for females to find new work opportunities. Recently, Csillag (2021) interviewed 46 individuals in the film production industry and studied their career progression as they changed jobs over time. Rather than engaging in traditional job search, these individuals relied on their reputations to attract gigs. They also developed positive relationships (e.g., trust, social unity, and commitment) with other individuals so that they could collaborate with them and remain employable in this industry.

Researchers have studied the impact of taking up gig work on subsequent careers. Using employment history data of MBA alumni of a US business school, Anderson and Bidwell (2019) found that managerial workers' contract work experiences were associated with lower pay both while contracting and in subsequent regular employment. Based on the longitudinal interviews of 11 TaskRabbit workers, Ravenelle (2019) found that taking up gig work may make these workers stuck with gig work and less likely to find full-time jobs in traditional organizations.

Outside of organizational boundaries, workers adopt different approaches to find work and maintain a steady stream of income. Antcliff et al. (2007) interviewed freelance television production

workers in the United Kingdom and found out that workers relied on networks to gain competitive advantages and foster collaborations. With a sample of early career freelance songwriters, Lee and Gargiulo (2022) found that freelancers' success a first commercial hit was associated with faster transition from a closed network that could offer supportive resources to an open network that could bring more collaborative opportunities, they were more likely to be commercially successful. Carr et al. (2017) conducted experiments to study whether task-relevant or task-irrelevant information could signal employability more efficiently. They found that halo effects existed in the online labor platforms. Compared with unattractive photographs, attractive ones may help gig workers obtain contracts when their task-relevant information indicates they were capable of completing the work.

In sum, career path uncertainty is a key concern for gig workers and has attracted much attention. Following the boundaryless career perspective, gig workers who prefer to work without organizational membership should be proactive to deal with the uncertainty and use appropriate strategies such as stretchwork and networking to expand their skills and enhance their employability.

4.4.4 | Impact outside of gig work domain

An emerging topic regarding job performance is the potential impact of multiple jobholding on job performance at one's main job. On the one hand, multiple jobholding may deplete workers' personal resources and thus become detrimental for their main jobs. On the other hand, multiple jobholders may experience positive spillover from their side hustle and thus perform better on their main job. Sessions, Nahrgang, Baer, and Welsh (2021) and Sessions, Nahrgang, Vaulont, et al. (2021) examined the impact of holding secondary jobs such as driving for Uber/Lyft and completing surveys online in gig economy on primary jobs. Sessions, Nahrgang, Vaulont, et al. (2021) found that daily side-hustle empowerment has a positive impact on daily full-time work performance through side-hustle engagement and positive affect. They proposed two pathways, with an affective pathway representing an enrichment effect on full-time work performance through side-hustle engagement and positive affect at work, and with a cognitive pathway representing a depletion effect on full-time work performance due to decreased capacity for focus. Overall, they found that the performance enrichment effect through the affective pathway was stronger than the cognitive pathway, making the overall effect of side-hustles on full-time job performance positive. In a second study, Sessions, Nahrgang, Baer, and Welsh (2021) found that status inconsistency between primary jobs and side hustles diminishes performance in full-time work via stress and emotional exhaustion. They argued that status inconsistency between primary jobs and side hustles requires employees to navigate stress-inducing tensions, such as dealing with the confusion of one's work identities, which thus promotes more stress and emotional exhaustion. This study also indicated that getting a higher-status side hustle may create unexpected problems such as increasing full-time job stress and harming full-time job performance.

The accessibility of the gig economy also brings new challenges to multiple jobholding because it has become quite easy for workers to engage in side hustles while they are on their main jobs. As reviewed earlier, Wang (2018) found that some doctors took time during their shifts in hospitals to provide online medical service through medical platforms. Although doctors experienced higher meaningfulness because they could care for patients who live in remote areas who would otherwise not be able to receive high-quality health-care service, hospitals fell victim to such time-theft behavior.

In addition, researchers have started to examine the impact of gig work on the family domain. A key question is whether gig work could help workers maintain a better work–family balance or result in more conflicts. The limited research has yielded mixed findings. Some studies found that because gig work offers higher flexibilities, gig workers could better schedule their work time; this was especially true for women who traditionally shoulder more domestic responsibilities (Altenried, 2020; Anderson & Bidwell, 2019; Churchill & Craig, 2019; Hall & Krueger, 2018) including during the COVID-19 pandemic (Dunn et al., 2021). In addition, professionals may actively seek independent work to help maintain better work–family balance (McCallum et al., 2019). In contrast, researchers also found that the flexibility of gig work could result in an erosion of work–life boundaries, as seen in some gig workers' unhealthy behaviors, such as eating and sleeping near a computer, to keep track of future gig work (Lehdonvirta, 2018).

In sum, researchers have started to examine the impact outside of gig work domain, including the family domain and, for multiple job holders, their main job. Recent work on multiple job holders suggests that gig work can, under the right conditions, benefit one's primary job. As for gig work's impact on the family domain, more studies are needed to understand the conditions under which flexibility afforded by gig work can lead to more positive work–family outcomes. In other words, the research on “whether” gig work could help workers maintain a better work–family balance should shift to “when and how”.

5 | MOVING FORWARD: FUTURE RESEARCH AGENDA

Extant research on gig workers has offered rich insights into gig workers' experiences and perceptions. Synthesizing the existing knowledge base, our review above identifies key input, process, and output variables in gig work. Future research can now start to investigate theory-driven questions and explore potential boundary conditions. Specifically, researchers can adopt one of three theoretical approaches below to examine gig work. One such approach is to extend and apply traditional theories in the gig work context. Our review above suggests that while relatively more studies have examined gig workers' psychological processes based on the motivational approach, fewer studies have examined gig workers from relational, cognitive, and affective approaches. Therefore, drawing from theories about these approaches can likely make an immediate impact on

understanding gig workers' experiences. For example, the affective event theory (Weiss & Cropanzano, 1996), which emphasizes the role of emotional responses in shaping one's subsequent attitudes and behaviors, is particularly relevant but understudied for gig workers. The emotional response (e.g., angry, sad, and happy) to a contract, customer, or the labor intermediary is a natural reaction of gig workers. Drawing from affective event theory could help organize existing research on factors such as emotional tension (e.g., Caza et al., 2022; Petriglieri et al., 2019) in gig workers. As another example, career adaptability theory can illuminate the cognitive aspect of gig work. Defined as readiness to address present and future work and career challenges, career adaptability contains three dimensions: planfulness, self-environment exploration, and informed decision-making (Savickas, 1997). These dimensions can help organize the literature on various decisions and cognitions that accompany gig work, such as decision to adopt gig work and side hustles; learning and self-development activities; and spillover across gig work, primary jobs, and personal life. We also call for future research to examine how these different mechanisms interplay with each other and examine these mechanisms simultaneously.

The second approach is to examine gig work as a boundary condition to existing theories. In other words, what works in traditional employment settings may not work in the gig economy. As our review above suggests, working in the gig economy differs from traditional employment in organizations, and as a result, theories grounded in traditional employment settings may not automatically apply to gig work. For example, gig workers may be less motivated to use the traditional impression management strategies in influencing performance evaluation, such as ingratiation and self-focused promotion, which might not be effective in gig work either. As another example, gig workers may be less likely to exhibit extra-role behaviors both to the organizations and customers as their working relationships are only temporary.

The third approach is to develop new theories in this new research context. As our review above indicates, the unique characteristics of gig work, compared to traditional employment settings, go beyond their different organizing structures. It is likely that new constructs and theories can be developed around the unique features of the gig economy (Kuhn & Maleki, 2017). Research has shown that gig workers adopt unique approaches to managing their work identity, such as taking on greater interpretive flexibility and lower interpersonal accountability to navigate identity-threatening situations (Anicich, 2022) and cultivating connections and relationships to acquire a broader purpose for their work (Petriglieri et al., 2019). Moreover, gig workers are likely to face a set of challenges particularly burdensome for them that are unique from the challenges of traditional employment (Caza et al., 2022).

Although there is a myriad of opportunities for researchers to develop new concepts and theories in the gig economy, we identify six research agendas below where immediate research impact is likely. We use blue and shaded font in Figure 1 to indicate future agendas. In addition, we listed example research questions in these future agendas in Table 1.

TABLE 1 Future research agenda with sample questions.

Research agenda	Research questions
Agenda #1: Examine Long-term implications of gig work	<ul style="list-style-type: none"> • What is the impact of taking up gig work on individual employability? • What are the new predictors for gig workers' career development? • Can a more complex career model account for careers both within organizations (i.e., intraorganizational, interorganizational) and without organizations (i.e., gig work)?
Agenda #2: Multiple jobholding in the gig economy	<ul style="list-style-type: none"> • What is the impact of taking up gig work in spare time on one's full-time job? • How can organizations address the possibility that employees may engage in gig work? What is the impact of this possibility on organizational policies, such as work from home policy? • How does gig work experience lead to career transition? • What effects do different portfolios of full-time jobs and gig work have on one's full-time jobs?
Agenda #3: Adopt a multilevel perspective to the study of gig work	<ul style="list-style-type: none"> • How to facilitate team collaborations among gig workers, especially on digital labor platforms? • How does gig workers' work performance impact digital labor platforms' performance? • How does gig workers' work attitudes impact digital labor platforms' performance? • How do the daily dynamics of gig workers impact their well-being and work performance?
Agenda #4: Appreciate the breadth of gig work experience	<ul style="list-style-type: none"> • How do the differences among gig work impact gig workers' work attitudes and behaviors? • How to create a tool similar to O*NET to facilitate the understanding of the changing nature of work including gig work?
Agenda #5: Social identities and diversity, equity, and inclusion	<ul style="list-style-type: none"> • Do women have disadvantages status in gig work? • Do older people experience discrimination in gig work? How do older workers effectively utilize gig work as a bridge employment option? • Do migrants, people with disabilities, LBGTQ+ people experience discriminations in gig work?
Agenda #6: The relationship between gig work and grand challenges	<ul style="list-style-type: none"> • How do global problems, such as global pandemic, affect gig work? • How could gig work help tackle global problems, such as decent work, poverty, labor shortage, and climate change? • Does gig work ever worsen global problems, such as decent work, poverty, labor shortage, and aging workforce?

5.1 | Agenda #1: examine long-term implications of gig work

As more people engage in the gig economy, it becomes increasingly more important to question how the work experience in the gig economy may impact individuals' career trajectories. The availability of gig work as a career choice has fundamentally changed people's perceptions and options of career development. The few studies on the impact of gig work on career are mostly based on contract workers in organizations. Some initial examinations focused on pay (Anderson & Bidwell, 2019) and the abilities to develop transferable competencies (e.g., Duggan et al., 2020) as career outcomes for gig workers. In the future, researchers could adopt a longitudinal design to investigate the impact of gig work experience on the career trajectory of individuals.

One key question to be addressed is how gig work impacts individuals' employability, which consists of three dimensions—career identity, personal adaptability, and social and human capital (Fugate et al., 2004). The nature of gig work may hinder the accumulations of human and social capital which are inherent in social networks, thus hampering one's ability to identify future career opportunities. Although involvement in the gig economy can bring gig workers immediate financial support and work opportunities, gig work may disrupt individuals' career growth such that a short stint in gig work early in one's career can lead to lingering detriment (Anderson & Bidwell, 2019). However, the gig work experience can also promote career development. For example, working on gigs relevant to one's

profession (e.g., artistic design and computer programming) as a side hustle may offer individuals additional opportunities to practice their crafts, making them more proficient in their primary jobs.

The prevalence of labor intermediaries also brings new predictors for career development (Bonet et al., 2013). In traditional organizations, organizational tenure and task performance are important predictors of income and promotions (e.g., Baker et al., 1994). In the gig economy, however, labor intermediaries may change or eliminate the impact of these traditional predictors of career success (Bonet et al., 2013) as tenure and performance become less important in mediating career moves. Individual differences in career planning may play a stronger role for gig workers' career outcomes than in traditional organizations (e.g., Aryee & Debrah, 1993), as gig workers can leverage the flexibility of their work to maximize career-related activities. With the availability and accessibility of online courses, some gig workers may be more willing to allocate time and resources to build up their skills. They may also utilize online networking sites to seek out career guidance and opportunities.

In addition, the traditional career model has an intraorganizational focus. Recent studies have reflected the shift from an intraorganizational focus to an interorganizational focus (Guan et al., 2019; O'Mahony & Bechky, 2006). However, given the prevalence of staffing agencies and digital labor platforms, we call for the development of a comprehensive career model that considers career development both within organizations (intraorganizational and interorganizational) and without organizations. It would be interesting to explore what type of career trajectory is generally more successful than others, as

workers could first start their careers in traditional organizations, then take up gig work, or vice versa, or they could either stay in organizations or remain gig workers. In addition, since new entrepreneurs may utilize gig work as a source of income when launching their businesses, their engagement in gig work over time and the subsequent transitioning out of gig work serve as an interesting parallel to earlier research on entrepreneurs' decisions to quit their day job (e.g., Raffiee & Feng, 2014). Future research could also investigate the relative importance of career trajectory choice and other factors such as human capital and social capital on career success.

5.2 | Agenda #2: multiple jobholding in the gig economy

Researchers have been interested in multiple jobholding for over 50 years. A key research question in this area is whether multiple jobholding is depleting or enriching (Campion et al., 2020). Researchers have used different terms to name multiple jobholders, including hybrid entrepreneurs, dual practitioners, plural careerists, portfolio workers, and moonlighters. To reflect the diversity of job arrangements, Campion et al. (2020, p. 170) defined multiple jobholding as “the act of working more than one job simultaneously, including working for employers and self-employment, wherein all tasks, or sets of tasks, are performed in exchange for, or expectation of, compensation.”

The gig economy brings new challenges to multiple jobholders and organizations, as the ease of access to gigs makes it easy for employees with traditional jobs to engage in side hustles. For example, employees could work as Uber partners (drivers) or claim orders from Upwork after the work hours of their full-time jobs. Moreover, how multiple jobholders are perceived may depend on their occupational prestige. When white-collar professionals engage in gig work, their side hustle may run counter to their professional images of high competency, thus posing a threat to tarnish their professional images and even leading to discounting of their competence in their professional roles (Caza et al., 2022). Such a concern is less likely for blue-collar employees.

A concern for organizations is the possibility that employees could take up gigs when physically present at work. For example, Wang (2018) interviewed doctors in hospitals in China and found that some doctors signed up as online doctors through a gig platform and even stole time to perform gigs during their regular shifts in hospitals. Such behaviors bring new challenges to traditional organizations, especially since many organizations consider employee engagement a top priority (Gallup, 2022). This concern could be exacerbated by the work-from-home policies that have become more popular since the onset of the COVID pandemic (ILO, 2021). Part of the idea behind remote work is to provide workers with more flexibility aside from organizations' attempts at cost-cutting. However, if employees utilize the flexibility to engage in gig work, this defeats the purpose of the work-from-home policies. The potential for side hustling while remote

working may increase work–family conflict and burnout. Aside from stealing work time, employees could potentially use resources at work (e.g., computers and office supplies) for one's side hustle as well. There is a need to broaden the definition of counterproductive work behaviors to reflect these new behaviors.

In addition, as the notion of a boundaryless career attracts more attention, it would be important for organizations to understand the circumstances under which taking up side hustles eventually leads to employee turnover. Professionals may seek independent work as a new career choice other than staying within the organizational boundary (McCallum et al., 2019). Organizations concerned about employees depleting their resources when holding a side hustle or even leaving for independent work may adopt practices to discourage multiple jobholding. In addition, researchers found that multiple jobholding may harm the professional and competent images of white-collar employees (Caza et al., 2022). These concerns may lead employees to conceal their multiple jobholding status from colleagues, thus threatening their authentic experience at work. Research has found that employee authenticity is an important predictor of work attitudes and behaviors. When employees could act based on their true values and beliefs, they get more positive psychological resources which could further shape their work attitudes and behaviors (Song et al., 2021). Thus, we suspect that concealing one's side hustle may be detrimental to workers.

Furthermore, it is also important to examine the impact of different combinations of multiple jobs. Sessions, Nahrgang, Baer, and Welsh (2021) found the negative impact of status inconsistency between full-time and gig work on the performance in full-time work via role stress and emotional exhaustion. Just like traditional jobs, gig work could vary in multiple dimensions, such as physical and cognitive requirements, level of prior training required, and amount of interpersonal interaction. Research on occupational interests may provide a useful lens to understand individuals' choices of side hustles, and whether side hustles can be depleting or enriching to one's experience. According to Holland (1997), congruence between one's vocational interests and the job environment leads to satisfaction. To the extent that one's primary job and side hustle have distinct interest profiles, one may be able to satisfy different needs in the two different environments. For instance, someone with high interests in both investigative and social dimensions may be able to satisfy their investigative interest on their primary job (e.g., research scientist) and social interest on their side hustle (e.g., rideshare driver). In other words, assessing multiple jobholding in the gig economy may provide new insight on individuals' vocational choices.

In keeping with the focus on temporality proposed in Agenda #1 on career development, the current Agenda #2 would benefit from explicit consideration of temporality. Looking at the long-term implications such as career outcomes is a more distal examination of the temporality issue, whereas looking at multiple jobholders' current work portfolio is a more immediate and proximal examination of the temporality issue.

5.3 | Agenda #3: adopt a multilevel perspective to the study of gig work

Research on gig workers has predominantly focused on the individual level of analysis. Few studies have examined gig workers at the team level, organization level, or within-person level (see Ai et al., 2023; De Stefano et al., 2019; Sessions, Nahrgang, Baer, & Welsh, 2021 for notable exceptions). Some studies have examined blended teams with full-time workers and contingent workers in organizations and studied how their different statuses played a role in task performance (e.g., Broschak & Davis-Blake, 2006; Chattopahay & George, 2001). As more and more organizations integrate contingent workers in their workforce, full-time workers and contingent workers oftentimes need to collaborate in a team setting (Bonet et al., 2013).

An exciting frontier of research on gig work is to examine at the team level of analysis. For example, in some digital labor platforms, to make the workforce “sticky,” platforms have adopted a management structure that resembles the structure in a traditional organization (Sun et al., 2021). Specifically, riders for food delivery services are managed by team leaders who are also riders. These team leaders are also gig workers rather than traditional employees, but they assume some management responsibilities to communicate with riders and solve issues they encounter. This is a new context to study leadership where the relationship between the leader and members is temporary and informal in nature. Without formal positional power in traditional organizations, leaders may rely on other factors such as forming close personal relationships with team members to gain authority and respect. In addition, researchers in the field of information systems have examined the possibilities of using crowdsourcing among strangers to complete creative tasks (e.g., Abbas et al., 2020). It would be innovative if digital labor platforms could use artificial intelligence to pair gig workers up based on their personality and prior experiences to facilitate collaboration. Such practices would enable gig workers to complete projects that are beyond individual capability and require team collaboration.

At first blush, it may seem difficult to apply team management practices on digital labor platforms as workers lack familiarity with each other. However, researchers have started to test the feasibility of this practice. With a field experiment, Ai et al. (2023) found that team identity and co-workers' bonds may help increase worker engagement in gig economy. They found that drivers who formed teams with other more communicative and responsive drivers worked longer hours and earned higher revenue during the team context period of an inter-team contest field experiment than drivers who formed teams with random others, and this effect continued until 2 weeks after the context ended. In addition, researchers also discussed the possibility of coordinating crowd workers to complete complex goals in teams. Salehi et al. (2017) investigated whether a dynamic programming algorithm could optimize for familiar workers in the digital labor platforms when individual availability is typically unknown. They found that crowd teams with high familiarity among team members outperformed crowd teams with low familiarity among team members. In the context of “flash” teams to collaborate

on complex projects, Lix (2021) found that leaders' situational behaviors aimed to increase role clarity were positively associated with performance outcomes. In addition, improved algorithmic ranking systems could also make freelancers develop higher levels of trust and engagement. These studies suggest the possibility of teamwork in the crowdsourcing environment by utilizing worker familiarity as a key consideration in team assignment.

Future research may also examine the relationship between gig workers' behaviors and platform performance, similar to earlier research linking independent contractors' behaviors and organizational performance (Flinchbaugh et al., 2020). For example, De Stefano et al. (2019) studied the impact of planned turnover of temporary workers on organizational performance. They found that the planned turnover of temporary workers has an inverted U-relationship with unit performance because the staffing of temporary workers provides both flexibility benefits and disruption costs. The adoption of temporary workers provided flexible support to organizations, and a low level of the planned turnover was positively associated with unit performance. However, when turnover reached high enough levels, the negative effects of disruption outweighed the benefits of flexibility. This study challenged the widespread assumption that temporary workers are disposable resources. Researchers have generally found positive relationships between using contractors and organizational performance, such as labor productivity (e.g., Chan et al., 2010; Ogbari et al., 2015) and financial performance (Bouncken et al., 2013; Ferriani et al., 2009).

Future research is also needed to understand how gig workers' work attitudes and behaviors are associated with the performance of digital labor platforms. This relationship is fundamental to the question of why digital labor platforms should care about gig workers' perceptions and responses to platforms' policies and practices (Kuhn & Maleki, 2017). Digital labor platforms vary in terms of how much they embrace the ethical use of gig workers and adapt their policies accordingly. Part of the driver is likely whether platforms face strong competition for their workers.

At a more micro level, we encourage researchers to consider the multilevel nature of gig work in future studies to investigate the daily dynamics of gig workers. Gig workers' performance behavior could be captured at the contract level or daily level (Level 1) because demands and challenges associated with different contracts may impact gig workers' daily experiences, whereas worker variables such as personality and identity reside at the individual level (Level 2). Modeling gig working at both levels can tease apart variances associated with contract-level processes and transactions and those with more stable individual experiences. As an exemplar, Sessions, Nahrgang, Vaultont, et al. (2021) adopted an experience sampling method to understand the within-person, daily variation in side-hustle and full-time work experiences. Future research should broaden the examination of gig workers' daily experiences. For instance, although customer incivility is typically associated with negative employee outcomes (e.g., Walker et al., 2014), gig workers may stand up for themselves and terminate contracts with uncivil customers. Understanding how gig workers' interaction with uncivil customers affects subsequent service delivery

can not only shed light on the dynamics of gig work experience but also may offer insight for organizations on how to address the tension between uncivil customers and service employees.

5.4 | Agenda #4: appreciate the breadth of gig work experience

Given the complexity of gig work, researchers have classified gig workers into two broad categories (e.g., ILO, 2021; Spreitzer et al., 2017; Vallas & Schor, 2020): high-skill workers who provide professional service virtually and low-skill workers who work in-person (Spreitzer et al., 2017; Vallas & Schor, 2020). This argument is consistent with a recent ILO report (ILO, 2021) based on surveys on 12,000 workers over 100 countries and interviews with platform companies and worker associations. According to this report, the first type of digital labor platform is online web-based platforms, where workers could virtually perform tasks, including microtask, freelance, contest-based, competitive programming, and medical consultation. The second type is location-based platforms, where workers could only perform tasks locally at a specified physical location. Those locally performed tasks include taxi, delivery, care and home services, etc. Following an anonymous reviewer's suggestion, we considered classifying our review into subcategories of gig workers, potentially separating app-based workers from more traditional independent contractors. However, the limited number of studies based solely on one of these two subcategories of gig workers makes it difficult for us to examine subcategories of gig workers in a comprehensive and systematic approach. Although we adopted an inclusive definition of gig work, we believe there is great value in appreciating the diversity of gig work and attending to the specific experiences of homogeneous set of gig workers when appropriate (Watson et al., 2021).

Data from international labor studies have indicated that on-demand drivers and deliverers account for a large percentage of gig workers. Among the active 777 platforms, the delivery sector has the highest number (383 platforms), followed by online web-based platforms (283 platforms), then the taxi sector (including rideshare, 106 platforms) (ILO, 2021). Consistent with this estimate, existing research on gig workers has generally focused on gig work that requires physical presence and lower skills (Caza et al., 2022). In addition, some evidence suggests that gig workers in different sections may have different experiences. For example, Caza et al. (2022) found that low-skilled gig workers experience higher level challenges across multiple dimensions than professional gig workers. The ILO report (ILO, 2021) also indicates that gig workers' experiences in different sections are quite heterogeneous. For example, workers in the online web-based platforms have much less work autonomy than workers in the location-based platforms. In Upwork, where workers provide professional services virtually, workers are required to install a software program that could monitor the computer of workers with screenshots taken frequently and time recording (ILO, 2021). This level of control and monitoring does not apply to workers who drive taxis or deliver food. Oversampling taxi drivers and food deliverers to the

exclusion of other gig workers may paint an incomplete and even misleading picture of autonomy in gig work. Future research is encouraged to understand gig workers that perform high-skill work.

As gig work varies quite a bit from each other, researchers have yet to have a tool capture the differences among gig work types. It would be beneficial to have a counterpart of O*Net for gig work as we do for traditional jobs. The O*NET system (<https://www.onetonline.org/>) is the primary source of occupational information for over 1000 occupations in the United States. This regularly updated database is essential to understanding the changing nature of work, providing organizations a basis for managing their workforce. O*NET is both worker- and job-oriented, with data on the knowledge, skills, and abilities required for workers as well as the tasks, work activities, and other descriptors for jobs. It would be useful for O*NET to capture jobs in the gig economy, documenting their unique characteristics. Such an effort can enable researchers to move beyond the current dichotomy of high- versus low-skilled gig work and embrace the richness of the gig work environment.

5.5 | Agenda #5: social identities and diversity, equity, and inclusion

The term workforce diversity was coined in the 1990s, fueled by the trends of more members of historically underrepresented groups participating in work over the last several decades (Roberson, 2019). Labor statistics indicate that workforces have been more heterogeneous (Barak & Travis, 2012). With favorable contextual factors, such as leadership, HR practices, and climates, workplace diversity has a positive impact on performance, social integration, and well-being (Guillaume et al., 2017). Given the limited research coverage on diversity, equity, and inclusion in the gig economy, these issues should be a point of emphasis in future research on gig work.

Some initial evidence points to gender differences in the gig work experience. Women may be more likely than men to choose gig work to fit their schedule (Churchill & Craig, 2019), and they were also more likely to reduce their gig hours during the COVID pandemic to take up more caregiving and other domestic responsibilities (Dunn et al., 2021). Gender may be associated with gig work income, as women are more likely to be sorted into low-paying projects and less likely into high-paying ones (Churchill & Craig, 2019; Fernandez-Mateo & King, 2011). Female Uber drivers tend to earn 7% lower than their male counterparts in the United States, possibly because women had more non-paid-work time and preferred a lower driving speed (Cook et al., 2021). More importantly, when women take up gender-incongruent gigs (e.g., driving), compared with male drivers, female drivers received lower ratings from dissatisfied customers (Greenwood et al., 2020). Similar to traditional female workers, female gig workers also face gendered evaluation and glass ceiling effect (see Lee et al., 2023 reviewed above).

Older workers tend to face greater barriers such as age discrimination that make it difficult for them to find jobs (e.g., Carlstedt et al., 2018). Digital labor platforms offer older workers an alternative

to find work (Berde & Tóké, 2020; Cherry, 2019). Different from traditional organizations that tend to associate pay with age and tenure, limited research based on drivers suggests pay declines for drivers 40 years or older, because older drivers are less likely than younger drivers to drive in high-demand hours such as evenings and weekend nights (Cook et al., 2019).

Broadly considering diversity, equity, and inclusion in the gig economy opens up opportunities for research on populations that have received limited attention. For instance, earlier work on migrant workers showed that they are subjected to greater job uncertainty and exploitation. Digital platforms allow migrant workers better access to gigs than in the past, but at the same time, their experience may not be as equitable as their domestic counterparts (Altenried, 2021; Holtum et al., 2022). Indeed, the gig economy may broaden opportunities for individuals who otherwise may face challenges at finding regular employment—for example, neurodivergent individuals may find it difficult to pass interviews and land regular jobs, but they can easily find gigs performed virtually. At the same time, issues such as discrimination and microaggression can become more problematic—for example, gender nonconforming individuals may receive more uncivil treatment by customers because of the lack of social norms governing the interactions.

5.6 | Agenda #6: the relationship between gig work and grand challenges

Given the widespread and increasing use of gig work, management scholars can leverage their understanding of gig work to help address grand challenges, which are global issues that could be addressed by collaborative efforts. Doing so will answer recent calls for management scholars to better understand and tackle grand challenges (e.g., George et al., 2016).

The recent COVID-19 pandemic serves as a reminder how global problems can affect gig work. Researchers noted an amplified risk associated with the precarious nature of gig work during the COVID-19 pandemic, and this resulted in new and unique challenges for gig workers as a reflection of the social inequity (Granger et al., 2022). For example, Forbes Magazine reported a 94% decrease of Uber passenger rides in the United States since the outbreak of the COVID-19 in March 2020 (Spurk & Straub, 2020). The financial instability was intensified during the COVID-19 lockdown (Apouey et al., 2020; Dunn et al., 2021). Some gig workers, such as food deliverers, were moralized (e.g., they were dubbed “heroes” by media, organizations, and customers) during the pandemic as they helped people to meet their basic needs of getting food (Cameron et al., 2022). However, the high risk of getting COVID-19 may prevent them from meeting the ideal worker expectations that they should be available to work at any time. These workers engaged in different tactics, such as pursuing financial benefits, changing tasks, and changing interactions, to respond to customers' expectations, and some even withdrew from gig work (Cameron et al., 2021).

Management researchers can also examine how improving gig work can answer the recent call for *decent work*, which reflect the ILO's four strategic objectives: “the promotion of rights at work, employment, social protection, and social dialogue” (ILO, 1999, p. 6). Gig workers performing on digital labor platforms may lack employment protections such as a minimum wage, overwork, right to collective bargaining, or health insurance or safety support (e.g., Bertolini et al., 2021; Stewart & Stanford, 2017; Sutherland et al., 2020; Wood et al., 2019). A systematic evaluation of gig work on 50 digital labor platforms in South Africa revealed failures to meet decent work standards (Heeks et al., 2021). For example, besides having to work below the minimum wage, gig workers frequently faced risks such as robbery. Overall, decent work is understudied in gig work context (Blustein et al., 2023). Future research could apply management theories to improve working conditions and outcomes for gig workers. For example, drawing from work design theory, digital labor platforms could enhance task significance and task identity to motivate workers to further increase work productivity and enhance task autonomy to foster work safety behaviors. In addition, research on emotional labor may help understand how to decrease anxiety and increase well-being of gig workers who have interactions with customers.

Future research can also examine how gig work relates to poverty and income inequality, as work provides an important lens to understand poverty (Thompson & Dahling, 2019) and inequality (Piketty, 2015). As Schor (2020) discussed in her book, digital labor platforms reproduced structural disadvantage and income inequity for minority groups based on social identities such as racial composition and social class. In addition, the relationship between poverty and gig work could be bidirectional and complex. On the one hand, gig work can enable some individuals to escape poverty, since many digital labor platforms provide access to the global market. On the other hand, poverty can also restrict many people's access to gig work due to low levels of skills and training as well as limited devices and equipment.

As another example of grand challenge, aging workforce is also related to gig work as discussed above. Gig work gives older workers more opportunities to be back to the job market (Berde & Tóké, 2020; Cherry, 2019), but at the same time older gig workers could suffer from age discrimination (e.g., Carlstedt et al., 2018). Although researchers have noted that gig work could serve as bridge employment (Carlstedt et al., 2018) for people seeking career transition in their late careers, more empirical research is needed to sort out the benefits and drawbacks (e.g., Beier et al., 2022; Wang & Wanberg, 2017). For example, participating in gig work could give older people a source of income as well as social interactions as they may feel isolated from the society after retirement. The flexibility of gig work allows them to work as much or as little as desired and when they feel comfortable. However, older people may also face challenges, such as needing to balance work and leisure time, finding the right time of work that fits their skills and experiences, and mastering necessary technology.

In addition, organizations can restructure tasks and facilitate collaborations to utilize gig work to address potential labor shortages.

Research indicates that employee's voluntary turnover in the United States was on the rise during the past decade (De Smet et al., 2021), resulting in labor shortage with 11.3 million vacant jobs in February 2022 (Gibbons, 2022). On the one hand, although research has not reached solid conclusions, some people believe that gig work is a major cause of labor shortage in organizations as people could have more flexible options for work (Gig Lyfe, 2023). On the other hand, facing the Great Resignation in this post-pandemic period, many organizations shifted their recruiting to gig workers to fill in job vacancies. For example, the hospital Providence, based in Renton, Washington, has filled 13,000 shifts with gig nurses and other medical professionals as an innovative practice (Evans, 2023). In the future, traditional organizations could restructure tasks and integrate gig work in their regular workforce to address the labor shortage issue.

As trends in gig work are intertwined with societal changes such as climate change and the push for diversity, equity, and inclusion, studying gig work offers unique opportunities for management scholars to understand global challenges and the changing landscape of work. We hope our research agendas above offer directions for management scholars to broaden their approach to understand and advance the future of work.

6 | PRACTICAL IMPLICATIONS

Our integrated review offers important practical implications for individuals, organizations, digital labor platforms, and society as a whole.

For individuals participating in the gig economy, our review reveals four actionable recommendations. First, they are encouraged to conduct a cost–benefit analysis of participation in gig work. As gig workers gain a higher level of work autonomy and immediate income, they are at the risk of financial insecurity, career path uncertainty, and social isolation (Ashford et al., 2018). As some people prioritize autonomy in their career and actively seek gig work as their career choice, it is helpful for them to be aware of the downsides of gig work and be prepared for potential risks such as financial insecurity, physical and relational separation in their work context, and negative impacts on well-being. Second, to be successful in the gig economy, gig workers need to be proactive by adopting strategies such as collaborative and individual job crafting (Wong et al., 2021). With job crafting, gig workers could change their task boundaries, cognitive boundaries, and relational boundaries, which together could change the work design and social environment at work and could benefit them in the long run (Wrzesniewski & Dutton, 2001). Third, gig workers need to be aware of the impact of gig work on their career path. They should jointly consider their professional qualifications and the gig work they engage in and be mindful of their career planning. Researchers suggested that maintaining employability (i.e., the ability to market oneself and have transferrable skills) and coherence (i.e., continuity and congruence of their past work experiences) are two important considerations for gig workers in external job markets as they need to repeatedly seek jobs (O'Mahony & Bechky, 2006). Finally, multiple jobholders are encouraged to take up gigs that could enrich their

personal well-being rather than deplete them and harm their primary job performance.

As for digital labor platforms and intermediaries, our review suggests that they need to broaden the approaches they adopt to manage and motivate gig workers. An oversimplified approach to manage gig workers through monetary rewards and algorithmic control could result in undesirable results, such as low attraction to gig workers and customers, low worker and customer satisfaction, and frequent traffic accidents. Platforms should understand different theoretical approaches reviewed above and integrate them into their management practices. From a motivational perspective, platforms can incorporate work design (e.g., increase skill variety and task significance) and empower gig workers to job craft. From a cognitive perspective, platforms can help craft unique identities for gig workers. As an example, Lyft was successful in driving growth through purpose (Mainwaring, 2018). As the second largest platform in the ride hailing sector in the United States, Lyft distinguished itself by building a brand around its cultural values, community building, environmental awareness, and social activism, which contributed to the company's growth (e.g., Muender, 2014). From a social/relational perspective, platforms should ensure just and fair treatment of all employees and consider innovative ideas to build social and relational bounds among people who would otherwise interact on an *ad hoc* basis. For an affective perspective, platforms may offer support to workers (e.g., listen to frustrated gig workers after experiencing customer abuse) while providing training to navigate the need for emotional labor.

Traditional organizations need to consider whether they should discourage their full-time employees from doing gig work as their secondary jobs. Our review suggests that side hustles can both harm and enrich full-time job performance (e.g., Sessions, Nahrgang, Baer, et al., 2021; Sessions, Nahrgang, Vaulont, et al., 2021). Thus, rather than banning outside gigs altogether—if it is a legally defensible requirement—organizations may want to broadly consider how their policy and norms account for side hustles. It may be advisable for organizations to prevent employees from taking up gigs during their work time. For instance, some organizations may decide to monitor employees to prevent unauthorized use of their time and company device for gigs. However, electronic monitoring of employees can backfire by reducing employees' sense of agency and thus lead to moral disengagement (Thiel et al., 2023). In addition, organizations could also specify situations that may involve conflicts of interest (e.g., when employees could work for competitors and what behaviors may involve disclosure of confidential information) and establish an approval procedure for employees to follow (Arora, 2013). Outside of the work environment, organizations may leave room open for potential side hustles, as long as the employees maintain an adequate performance level on their primary jobs. Under such a circumstance, the organizations may wish to offer guidance for employees so that they benefit from their gig work experience and stay energized rather than exhausted. Finally, organizations may adopt internal gig platforms as an alternative way to accomplish task completion.

For the society as a whole, governments can implement regulations to better protect gig workers. There has been ample debate

about the legal status and associated rights and benefits of gig workers. Without the legal status as employees, gig workers tend to be excluded from rights such as minimum wage, social security, and collective bargaining. However, the issue is evolving, as the European Union (EU) recently proposed that gig workers be treated as employees in the EU (Shepherd, 2022). The purpose was to facilitate the healthy development of digital labor platforms and to protect the rights of gig workers. Although the results of the proposal remain unknown, this reflects an important move as a response to the many new issues brought forth by digital labor platforms. Governments should also investigate the relationship between gig work and grand challenges, such as labor shortage, climate change, and aging workforce. For example, faced with labor shortage, some segments of the economy (e.g., fastfood) will have to compete against digital labor platforms for workers.

7 | CONCLUSION

Gig work has a growing importance in the contemporary economy with organizations using more and more short-term arrangements. This trend has brought many new challenges to both gig workers and organizations. With this integrative review, we aimed to provide an integrative understanding of gig work and gig workers. Given the increasing trend of using gig work, more insights from organizational scholars are needed to facilitate the healthy and sustainable development of gig workers and organizations. Our hope is to stimulate more future research in this area.

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CONFLICT OF INTEREST STATEMENT

The authors have no conflict of interest to declare.

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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