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Completed Research Paper

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Abstract

Companies increasingly rely on algorithmic management (AM) to efficiently control and coordinate workers, especially in the quick commerce sector, where workers are required to work particularly fast. AM often implies that workers face cognitive demands, such as behavioral constraints imposed by a tight management regime, or significant physical demands, such as a high work pace. Against this backdrop, we interviewed 18 food delivery couriers about how they try to cope with these demands. We find that, despite AM-induced behavioral constraints, workers engage in job crafting to better cope with demanding work conditions, to enrich work roles, and to add or extend resources, thereby increasing their job satisfaction and the perceived meaningfulness of their work. In contrast to previous studies where job crafting is strategically enacted by workers for long-term benefits, our study finds that jobs can also be successfully crafted short-term in an ad hoc manner.

Keywords: Algorithmic management, job crafting, platform work, interview study.

Introduction

Workers in organizations of all kinds are increasingly witnessing the deployment of algorithmic management (AM), which is defined as "large-scale collection and use of data [along with] learning algorithms that carry out coordination and control functions traditionally performed by managers" (Möhlmann et al., 2021, p. 2005). AM enables app-based platform work such as food delivery or ride-hailing services which are hereafter referred to as AM-based work settings. In 2022, 28.3 million people were working in an AM-based work setting in the European Union, which is roughly equivalent to the number of people working in the manufacturing industry (Barcevičius et al., 2021). While AM is a highly efficient and beneficial approach from a platform providers' perspective, it has numerous drawbacks for workers. Behavioral or location-based monitoring in real-time (Galiere, 2020), as well as algorithmic matching of workers in a constant and particularly fast stream to orders they cannot choose by themselves (Zheng & Wu, 2022; Huang & Yen, 2021), are just a few examples of cognitively-demanding AM mechanisms that put workers into a 'technical corset' of coordination and control (Anteby & Chan, 2018). Being in this

technical corset implies that workers have limited opportunities to freely decide on their work processes, such as taking a break when feeling overwhelmed. In addition to AM mechanisms being used to replace bosses (Adams-Prassl, 2019), almost all interactions are delegated to chatbots or dispatchers who are responsible for operational issues such as damaged orders, but have no authority to give instructions, which often results in the perception of low organizational support (Jabagi et al., 2020). This limited room for interaction is further compounded by algorithmic opacity that limits workers' ability to scrutinize algorithmic decisions, which potentially leads to role conflicts and ambiguity, thus negatively impacting workers' well-being (Tarafdar et al., 2022). Likewise, the constant fear of losing one's job if the algorithms' instructions are not followed also contributes to the negative impact on workers and exacerbates the consequences of their technical corset.

A promising way for workers to have more control and autonomy over their jobs, is job crafting. This concept refers to physical and cognitive changes that workers make to the specific tasks and relational boundaries of their jobs and that are usually invisible to their managers (Wrzesniewski & Dutton, 2001). In doing so, workers may proactively minimize "emotionally, mentally, or physically demanding aspects" (Demerouti, 2014, p. 239) of their work, such as a high work pace, by trying to work more slowly. Additionally or alternatively, workers seek resources, such as social support (e.g., feedback, and advice from their coworkers or supervisor) (Demerouti, 2014), to better cope with unalterable job demands. Job crafting is also characterized by being a long-term, well-planned, and systematic, as well as a future-oriented, behavior to pursue personal (career) goals (Bruning & Campion, 2018; Bakker et al., 2014). However, in a tight algorithmic management regime where every activity is 'tracked and traced' in real-time, it is almost impossible to be a "job crafter" (Wrzesniewski & Dutton, 2001). Workers may further hesitate to engage in job crafting because they fear it can make them easier to be replaced by employers who dislike changes to well-defined jobs (Keith et al., 2020). Additionally, algorithmically managed workers are easily replaced since the micro-tasks they usually perform do not require an in-depth understanding or unique skills to complete a job (Galiere, 2020; Deng & Joshi, 2016). In particular, the micro-tasks prevalent in AM-based work settings are "decomposed, self-contained, small tasks that are simple to perform repeatedly" (Deng & Joshi, 2016, p. 10; cf. Hoßfeld et al., 2011).

The demanding AM mechanisms and the tight management regime converge into the 'AM-worker dilemma': On the one hand, AM mechanisms trigger the necessity for workers to proactively engage in behaviors to better cope with demands; On the other hand, this is made considerably more difficult by the strict AM mechanisms. In some cases, however, as some studies suggest, workers have found ways to escape the 'AM-worker dilemma' by job crafting, thus showing that workers are not entirely at the 'mercy of the algorithms.' For instance, Verelst et al. (2022) show that food delivery workers perceive forced order assignments not only as a job, but also as a workout, or as an opportunity to get to know the city better. This cognitive process, which is not recognized by the algorithms, helps workers feel better and make their work seem more meaningful. Furthermore, Wong et al. (2021) show how platform workers gain more resilience by interacting with other workers in online forums, thereby gaining social support and feeling less isolated.

Interestingly, despite all concerns, it is shown that workers more or less proactively decide to work within AM-based work settings, as they provide a "means of employment and a source of income for many people who would otherwise be unable to participate in the job market" (Mäntymäki et al., 2019, p. 452). Additionally, AM, as an essential part of the (imagined) future of work, is here to stay—thus making it essential to create an employee-friendly work environment. Against this backdrop and based on some first findings on job crafting, it is time to take a closer look and decipher previously undiscovered job crafting behaviors based on the following research question: *To what extent do workers in AM-based work settings engage in job crafting?*

Based on 18 semi-structured interviews with delivery workers from the German food delivery company Lieferando, we conducted a qualitative research approach (Gioia et al., 2013) using the "Role-Resource Approach-Avoidance Model of Job Crafting" (Bruning & Campion, 2018, p. 46) as an initial theoretical lens. This model shows how workers can proactively seek to increase their engagement by expanding roles and resources within their jobs (approach goals) while seeking to avoid or reduce their involvement in roles or resources (avoidance goals). In doing so, workers pursue the overarching goal of autonomously enhancing the positive aspects of their jobs without harming organizational goals. Job crafting, a concept originating from organizational behavior (e.g., Berg et al., 2010) has been extensively studied empirically in traditional and conventional work contexts (e.g., Leana et al., 2009; Niessen et al., 2016) and has to date, apart from a

few studies, received little attention in the information systems (IS) literature (e.g., Tarafdar & Saunders, 2022; Deng & Joshi, 2016). Our study aims to contribute to the IS literature by deciphering workers' coping behaviors in AM-based work settings by identifying situations and circumstances that help workers find enjoyment, thus leading to continued employment—despite high demands and low resources. Further, it is assumed that the current developments in the realm of AM-based work settings are just the beginning and that AM will increasingly shape the future of work (Scheiber, 2017), thus making it necessary to put workers in the spotlight.

This study is structured as follows: Next, we present the theoretical background of this study, followed by elaborating on our methodological approach. We then present our findings from the data analysis based on our theoretical lens. The findings indicate that workers apply job crafting activities that help them to shape their roles and increase their resources. Based on this, we show that time plays an essential role in job crafting activities and present a differentiation between long-term and short-term job crafting activities. We conclude by discussing the theoretical contributions and practical implications and pointing out the limitations of this study, which leads us to suggest promising avenues for future research.

Theoretical Background

Algorithmic Management

Basically, AM is defined as "large-scale collection and use of data [along with] learning algorithms that carry out coordination and control functions traditionally performed by managers" (Möhlmann et al., 2021, p. 2005). Managerial coordination refers to algorithmic matching and is defined as "the algorithmically mediated coordination of interactions between demand and supply" (Möhlmann et al., 2021, p. 2005), thereby continuously searching for market equilibrium by "searching for the most beneficial matches for both sides of the platform" (Möhlmann et al., 2021, p. 2005). Managerial control refers to algorithmic control (AC) and is, as mentioned earlier, carried out in a much tighter manner than traditional control via various algorithmic mechanisms (Kellogg et al., 2020). It is defined as using algorithms to "align worker behaviors with organisational objectives" (Wiener et al., 2021, p. 1; cf. Möhlmann et al., 2021).

In addition to the AM concepts, Kellogg et al. (2020) defined "four affordances of algorithmic technologies" (p. 368), which explain the uniqueness of the AM mechanisms, respectively algorithmic systems: First, *comprehensiveness* is provided by the usage of a wide "range of devices and sensors" (Kellogg et al., 2020, p. 371) to collect a seemingly endless variety of behavioral data of workers, such as text messages or the time spent in a particular location. Second, *instantaneity* refers to the high "velocity of algorithmic computation" (Kellogg et al., 2020, p. 371), which allows performance evaluation in real-time, e.g., via algorithmic monitoring and algorithmic rating. Third, *interactivity* represents the algorithmically-mediated connection of multiple parties, i.e., mostly customers, workers, and platform providers via interactive user channels (Kellogg et al., 2020). Fourth, *opacity* refers to the general 'black-box'-nature of algorithms and that algorithms are designed in a way to keep intellectual technical "propert[ies] and corporate secrecy" (Kellogg et al., 2020, p. 371).

Since the emergence of AM, workers have developed various individual strategies and practices to better cope with the exhausting job demands, such as behavioral restricting. Simultaneously, they engage in behaviors that *along with* algorithmic mechanisms, help workers to increase job resources, such as algorithmic rewarding or real-time feedback (Lippert, Kirchner, & Saunders, 2023). In this regard, job crafting surfaces as one possible strategy to escape the 'AM-worker dilemma'. It will be introduced in the following section.

Job Crafting

Generally, job crafting is defined as proactive "physical and cognitive changes individuals make in the task or relational boundaries of their work" (Wrzesniewski & Dutton, 2001, p. 179), and workers engaging in job crafting are considered as "job crafters". In particular, cognitive crafting refers to the act of shifting the perspective on the work and its purpose, such as viewing it as a series of separate components or as a whole. Task crafting involves modifying the nature or quantity of activities one participates in, and relational crafting is the use of one's discretion to choose with whom and how often to engage (Wrzesniewski & Dutton, 2001). Overall, job crafters seek to individually or collectively enhance and enrich their individual

work roles or to consciously avoid situations in order to improve the person-job fit or to improve engagement and performance (Bruning & Campion, 2018; Dubbelt et al., 2019). In work settings where job demands are not sufficiently compensated with job resources, workers are especially likely to engage in job crafting to add meaning, produce positive outcomes, and ultimately increase their well-being at work (Demerouti, 2014).

In addition, Bruning and Campion (2018) defined six essential characteristics of job crafting: First, job crafting is a self-targeted behavior with the general intention of improving a situation by reducing demands or creating personal benefits. Second, job crafting behaviors are voluntary, conscious, and intentional changes that make, third, "significant and noticeable deviations from the pre-crafted job" (p. 4). Fourth, job crafting refers to behaviors that are of semi-permanent or permanent nature and are to be distinguished from spontaneous or temporary behavior. "Fifth, job crafting occurs within the work role" (p. 4), and sixth, within a defined job with clear specifications. Regarding the fourth characteristic, stating that job crafting is a permanent or semi-permanent behavior, there are multiple connecting threads underlining the temporal component of job crafting: Several studies indicate that job crafting is most likely to be effective when practiced regularly over a longer term (e.g., Tims et al., 2013; Zhang & Parker, 2019), especially when it comes to the effects and benefits of it, such as high occupational well-being, which includes job satisfaction and organizational commitment (Bakker et al., 2014). In addition, it is generally assumed that workers' experience and knowledge regarding their work are essential antecedents for job crafting, as it usually takes a longer time to "develop knowledge about work processes and organizational arrangements" (Niessen et al., 2016, p. 1294). Thus, job crafters usually need a few months to gain foreknowledge about which job crafting activities are possible (and beneficial) in the organization, which repetitive demands cause strain, and what does not create "negative side effects for coworkers or supervisors" (Niessen et al., 2016, p. 1294).

Further, the defined job crafting characteristics particularly help to distinguish job crafting from other (proactive) behaviors used by workers to better cope with the job demands arising from the strict algorithmic regulations, such as low well-being at work and misalignment of work with personal needs and values. For instance, some workers resort to the use of workarounds (e.g., Cram et al., 2022; Tarafdar et al., 2022), i.e., conscious "adaptations of work activities that are not expected or specified to be changed in this manner" (Laumer et al., 2017, p. 335). An example of a worker using a workaround is logging off his or her main working app and immediately logging back in to modify the algorithmic decisions to his or her advantage (e.g., to get more profitable tasks). Other workers engage in resistance behavior to defend their autonomy (Kellogg et al., 2020), which is displayed when the target avoids performing the requested action by arguing [or] delaying" (Enns et al., 2003, p. 162). For instance, canceling unprofitable or undesired algorithmic order assignments by "deactivating GPS or the service system itself" (Möhlmann & Zalmanson, 2017, p. 11) can be considered as resistance. Although job crafting, workarounds, and resistance share common triggers (i.e., demands arising from the algorithmic mechanisms or working conditions), their outcomes for the organization are different: Workarounds and resistance are often connoted in a negative way as non-compliant response to organizational change (e.g., Oreg, 2006), thus potentially harming the organization; In contrast, job crafting is often considered as a positive and future-oriented way to create, for instance, enrichment, meaningfulness, increased (personal) job resources, person-job fit and well-being, with the intent to create a long-term relationship with the organization (Dubbelt et al., 2019).

Analytical Framework: Approaching and Avoidance Forms of Job Crafting

Since this study investigates different job crafting activities among workers in AM-based work settings, we use a theoretical framework that provides us with initial guidance to identify job crafting behaviors and differentiate other potential behaviors, such as those described in the previous section. Accordingly, we introduce the role–resource approach–avoidance model of job crafting according to Bruning and Campion (2018) as our theoretical sensitizing lens, which builds on the two basic assumptions that individuals are either motivated by approaching or avoiding activities:

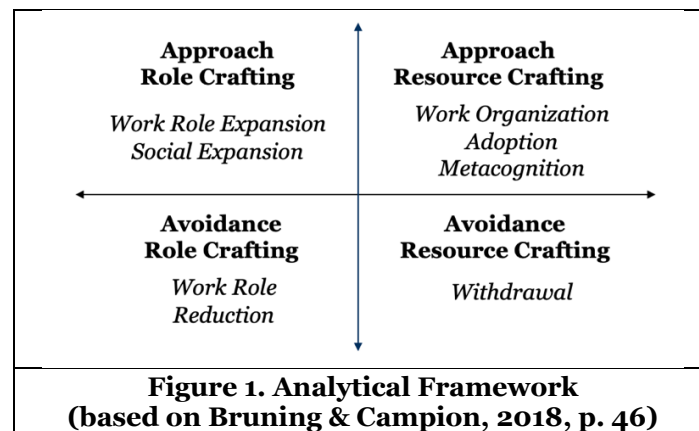*Approach role crafting* refers to activities of expanding task and role boundaries, as well as integrating social resources, in order to achieve improvement-oriented and personal needs-oriented goals. Thus, by *work role expansion*, workers seek to enlarge aspects of their work, thus adding responsibilities to their initially defined job. *Social expansion* involves using social resources (e.g., feedback from coworkers or

interaction with customers) and providing resources "to another organizational member or collective." (Bruning & Campion, 2018, p. 33).

Approach resource crafting refers to modifying work to increase (personal) resources and focuses primarily on increasing efficiency through resource acquisition and conservation with the overarching intent of improving work experiences. In doing so, workers engage in the improvement of *work organization* processes, i.e., they proactively contribute to the design of systems and other "tangible elements of work" (Bruning & Campion, 2018, p. 21). They further *adopt technologies* that help them to engage in process improvement and other job crafting behaviors. Approach resource crafting also involves *metacognition*, i.e., the "autonomous task-related cognitive activity involving […] the manipulation of one's own psychological states." (Bruning & Campion, 2018, p. 23).

Avoidance role crafting refers to an intentional and systematic *work role reduction*, i.e., evading or eliminating social and task-related parts, especially accountabilities and responsibilities of the formally defined role.

Avoidance resource crafting reflects the intention to increase personal efficiency by *withdrawing* from hindering and unmanageable (social) demands and situations, such as troublesome colleagues, customers, or environmental conditions that potentially induce stress and consume (personal or work) resources.

Approach Role Crafting	**Approach Resource Crafting**
Work Role Expansion *Social Expansion*	*Work Organization* *Adoption* *Metacognition*
Avoidance Role Crafting	**Avoidance Resource Crafting**
Work Role Reduction	*Withdrawal*

Figure 1. Analytical Framework (based on Bruning & Campion, 2018, p. 46)

The role–resource approach–avoidance model of job crafting is frequently applied in various disciplines, such as organizational psychology, innovation management, and also in IS. For instance, taking "the initiative to participate in the organization's works council in addition to the main job" (Van Wingerden & Poell, 2019, p. 137) is a job crafting activity that can be considered as approach role crafting. It broadens the scope of the initially defined work role towards proactively taking more responsibilities that may be challenging to discover by Wrzesniewski and Dutton's (2001) conceptualization. Not so with the Bruning and Campion (2018) framework, where works council activities are more easily identified. Li et al. (2022) present an IS-related example of avoidance role crafting, in which simple and repetitive customer interactions are consciously delegated to chatbots to allow job crafters to focus on more important and meaningful tasks. This example shows that avoidance activities are not negative per se—they primarily serve to decrease hindering factors in achieving work-related goals. However, within their study, Bruning and Campion (2018) show that approaching roles or resources are more likely to generate positive outcomes than avoiding tasks.

Methodology

Algorithmic work is, according to Tarafdar et al. (2022, p. 8) "an emerging phenomenon for which the literature is relatively young, rendering qualitative methods that help generate new theoretical insights appropriate". Thus, we utilized a qualitative interview study with using deductive (i.e., top-down) and inductive (i.e., bottom-up) coding in tandem (Alvesson & Kärreman, 2007; Walsham, 2006). Based on 18 semi-structured interviews, we aim to identify unexplored relationships and patterns by drawing out the experiences of the workers through detailed interview questions and in-depth follow-up. In doing so, we

seek to explain to what extent workers in AM-based work settings engage in job crafting, which we could not have discovered through pre-constructed responses of a quantitative study. To deepen our understanding of the research context, the first author attended the monthly workers collective meetings and bike repair events. In addition, we have been participating in rider chat groups for about a year and have been reviewing Twitter postings as well as newspaper articles on a daily basis.

Research Context

Our empirical study focuses on the quick commerce (q-commerce) sector, a fast-growing field of business that involves delivering app-ordered food and other goods within an hour, typically via bike or scooter (Huang & Yen, 2021). Specifically, we conducted interviews with bike couriers working for Lieferando, the German brand of the restaurant-based food delivery company Just Eat Takeaway. Lieferando entered the German food delivery market in 2010 and represents one of the most established companies in the German q-commerce sector. Following the German employment regulations, workers employed at Lieferando have permanent employment contracts, mostly part-time, ranging from 10-30 hours per week and with an hourly salary of 12.00 €, even if they do not receive any orders (Fairwork, 2022). We consider Lieferando to be a hybrid organization, i.e., an organization that displays characteristics of both traditional and platform-based organizations (Lippert, Kirchner, & Wiener, 2023). This working arrangement distinguishes our study from previously examined contexts, where AM has mainly been studied among freelancers without a permanent contract.

During our observational phase, we learned that the bike couriers have micro-task work that is heavily determined by AM, and they have no human boss. These two characteristics are why we consider their work environment to be an AM-based work setting. Further, couriers at Lieferando must work at a fast pace, as algorithmic matching mechanisms ensure a constant stream of order assignments that have to be completed at a maximum of half an hour each. The app orchestrates every interaction, where the built-in chat can address any issues to the dispatchers, i.e., 'live operations' ("live-ops") staff. Even though they are usually the first point of contact, live-ops employees are hierarchically equal to bike couriers. They are, apart from emergencies (such as accidents or damaged orders that need to be delegated to coworkers) not authorized to issue instructions. The main task of dispatchers is to coordinate riders' and restaurant owners' requests, as well as general issues, such as closing the delivery services in cities with bad weather conditions like heavy storms.

The bike couriers' main task is to deliver food from restaurants to customers via bike several times a day. To do so, workers receive order assignments via their rider app. At this point, only the restaurant address where the food must be picked up is included. After a short or (sometimes) longer waiting time, they confirm picking up the food in the app. Subsequently, the customer's address is displayed, to which the app navigates them. Once they have arrived at the customer's location, they hand over the food and confirm this handover in the app. Afterward, they are free to receive the next order, typically assigned to them shortly after the handover. Throughout the entire order delivery process and even during break and idle (waiting) times, workers are tracked via GPS to determine their location, making it possible to assign them to new orders at the closest restaurants via matching mechanisms. Most workers use their own smartphones and bicycles. In some (usually large) cities, there is a hub where workers can obtain equipment (e.g., jackets, gloves, or helmets) and have the opportunity to meet other employees or address work-related concerns. Further, workers must organize their shifts via their rider app and maintain and repair their bicycles outside their regular working hours.

Data Collection

We collected data by conducting 18 semi-structured interviews. The interview guide for the semi-structured interviews was based on our research question and research framework (Myers & Newman, 2007). It was structured as follows: After gathering contextual information, such as age, working location, duration of employment, and their typical workday, we asked workers if they are "sometimes proactively looking for resources to enhance their job experience", which is in line with approach resource crafting. To investigate whether workers engage in approach role crafting, we further inquired whether they "sometimes attempt to expand their tasks or social interactions". Based on their responses, we requested further details from the interview participants, specifically regarding the underlying reasons that drive their behavior and specifically their regular job crafting routines. For finding interviewees, we asked riders on the streets

during break and waiting times if they would be willing to be interviewed. Since finding enough interviewees through this approach was quite challenging, we used Twitter as an additional way to find interviewees. The Twitter approach turned out to be very fruitful as we found most of our interviewees from different cities throughout Germany via several Twitter accounts, especially accounts from worker representative groups. As a reward, we paid each rider 10.00 € in the form of a voucher. The interviews were conducted via Zoom or phone and lasted between 15:38 minutes and 76:23 minutes and averaged 53:33 minutes. As most of the interviews were conducted in German, we translated them into English before the data analysis. Our final sample consists of 18 semi-structured interviews, with all riders being male and aged 20-50 years. Their job experiences at this or similar delivery services range from one year to eight years, with an average working duration of 4.7 years. Apart from two, the riders do not have an immigrant background, and they have a wide range of initial education, such as police officer, construction worker or a student of psychology. In addition, 15 of the 18 interviewees perform the job part-time, i.e., less than 25 hours per week. We stopped collecting data when we felt a lack of new insights during the interviews, leading us to believe that we had reached saturation.

Data Analysis

We analyzed the interview data according to Walsham's (2006) proposed guidelines. This approach emphasizes linking the data to our underlying theoretical framework, i.e., the role–resource approach– avoidance model of job crafting according to Bruning and Campion (2018). Thus, we started with deductive (i.e., top-down) coding as suggested by Saldaña (2021). This coding method allows the use of pre-defined codes, such as the study's "conceptual framework […], research questions [and] previous research findings" (p. 144), for the first coding cycle. Based on our introduced theoretical sensitizing lens, we coded statements such as *"For me, a lot happens via social media […] with coworkers from Berlin, Munich, and Hamburg. At some point I started with a WhatsApp group and then there were always new connections because a colleague from Cologne moved to Leipzig and started again at Lieferando…meanwhile I'm in 10 WhatsApp city groups…"* (Interviewee Niclas) with "approach role crafting" as superior code and "social expansion" as sub-code. Similarly, we coded statements such as *"If I drive longer than four hours, then I lose the fun. Then it gets tough, and I start looking at the clock. And then you don't feel like driving anymore. So, I drive a maximum of three evenings of four hours each"* (Interviewee John) with "avoidance resource crafting" as superior code and "withdrawal" as sub-code.

The second and third coding cycles were of a bottom-up, i.e., inductive nature, to allow for the data-driven emergence of new insights and patterns that help to explain the identified job crafting behaviors of the interviewees in our research context (Saldaña, 2021). In doing so, we were particularly interested in finding the underlying motivational drivers for the job crafting behavior workers engage in. For instance, as some interviewees repeatedly stated that they engage in networking activities, such as those stated by our Interviewee Niclas, the code 'workers engaging as networkers' emerged from the data inductive coding phase, thus specifying the job crafting forms within our context. Regarding AM-driven triggers potentially matching the identified job crafting forms, we coded statements such as *"The job doesn't really allow interaction with colleagues. Sometimes you're sitting 20 meters away at traffic lights, but then you have to continue in different directions…"* (Interviewee Niclas) with the code 'AM-specific job demand: low interaction'. Being aware of this AM-specific trigger for approach role crafting, specifically 'workers acting as networkers', we were further able to focus on personal intentions during the inductive coding process. Thus, we find that 'acting as a networker', is indicative of the need to maintain relationships and give the job more meaning and impact, which is evident from the following statement by Interviewee Niclas: *"Just in case something bad happens, this way [i.e., via Messenger] I always have the possibility to inform many colleagues quickly"*. Consequently, we applied the codes 'maintaining relationships' and 'meaningfulness' to explain reasons for 'workers acting as networkers.'

We also found quotes matching other behaviors, such as resistance: *"… I mean you can also set the phone in airplane mode, you can go somewhere…out of town and sit in the park, where you get fewer orders. Those would be such tricks to work less."* (Interviewee Bruno). We consider this statement as resistance (and not as avoidance resource crafting) because the positive backflow, such as the preservation of resources, is missing, which is why this behavior is not a form of job crafting from our point of view.

The results of our analysis, explaining the job crafting practices workers engage in and why, are described in the following section.

Results

Using Lieferando as an example, our data analysis indicates that workers in AM-based work settings are able and willing to engage in different forms of job crafting practices to make their work more meaningful, thereby finding ways to escape the 'AM-worker dilemma'. We found four practices for *how* workers engage in *approach role crafting*, four practices for *approach resource crafting* and one practice for *avoidance resource crafting*. We did not identify any statement that matches avoidance role crafting. We assume that this is likely because the initial work role is already atomic and cannot be reduced further, encompassing both the tasks and the potential social interactions with colleagues (that would allow, for instance, to delegate tasks to coworkers). Building upon the identified forms of job crafting, we delve into the reasons *why* workers engage in these practices and find that there are not only AM-specific demands triggering job crafting behavior but also individual motives. We further find that workers engage in job crafting with different temporal patterns: First, job crafters pursue long-term job crafting practices with abstract motivations, e.g., job enrichment and increased meaningfulness, and second, short-term job crafting to cope with concrete demands and situations.

Approach Role Crafting

Typically, AM-based work settings involve clearly defined roles and micro tasks, which limits opportunities for task enrichment. This is further compounded by AM-specific demands, such as workers having to accept orders without having access to all the necessary information, which leads to role ambiguity. While workers may not be directly able to change these facts, we find four practices of job crafting behaviors that allow them to enrich their role, for instance, in taking advantage of waiting or break times or even within the scope of their existing or new work role. The job crafting activities we identified are structured within the sub-forms of approach role crafting, i.e., work role expansion and social expansion.

We find two practices for **work role expansion**, i.e., performing additional tasks or taking further responsibilities on top of delivering food, to increase work meaning and impact, as well as person-job fit in AM-based work settings: First, *workers take the chance to be promoted as 'rider captain'* and second, *workers collectively act as an 'advocates' for riders, by volunteering to serve on the works council:*

Workers may decide their willingness to *be promoted as 'rider captain'*, which basically means to act as a kind of mentor for new employees, exemplified by the following statement:

> *"I am also a 'rider captain'—this means I am responsible to welcome [and educate] new riders and to see if they always were their helmets and so on. And the management kind of uses us as eyes and ears on the street".* (Interviewee Dan)

To be considered for promotion to rider captain (which is an official job title at Lieferando), workers must have been employed at Lieferando for at least six months. To be considered, they are either asked by administrative staff whether they would be willing to be a rider captain or contact the responsible hub on their own initiative. If selected, they receive 1.00 € extra salary per hour. In case of work-related issues, especially with coworkers, rider captains can reach out to a dispatcher directly via live chat instead of going through a ticket-based issue-handling process. This additional responsibility, which can be described as extended management, is usually executed by workers on-the-job or in between orders. In other words, through their new role, they permanently create themselves an environment in which they can find more variety, enrichment, and meaningfulness in their work. Furthermore, we assume that engaging as rider captain increases the person-job fit, which workers helps to better cope with boredom that might arise over time in AM-based work settings due to one-sided and monotonous tasks. In addition, they can also better engage in coping strategies, such as task and cognitive crafting more easily, despite the prevalence of algorithmic mechanisms. To this end, they use the interactivity and comprehensiveness of algorithmic systems to their advantage, i.e., there is a bottom-up usage of AM technologies.

We find occasions where *workers collectively act as 'advocates' for riders by volunteering to serve on the works council:* This form of job crafting in AM-based work settings involves the voluntary engagement in the officially elected works council, i.e., working act as 'advocates' for themselves and coworkers, as follows:

> *"The works council is in fact an additional role to get involved and improve the processes and procedures here at Lieferando. But [I do it] mainly for my colleagues, to make improvements in working conditions…and well, it's very fulfilling".* (Interviewee Tom)

Since virtually all interactions are based on algorithms, AM workers hardly have the chance to reach out to an employee such as talking to someone from the human resources department about employment-related concerns. Instead, they must resort to ticket-based queries in their app, which usually lead to automatic responses or interaction with chatbots. We observed that workers engaging in works councils is a form of work role expansion that often arises due to the working conditions created by the platforms and AM. In particular, the restrictive nature and the algorithmic opacity motivate workers to consciously expand their role to improve working conditions and to increase co-determination. This engagement often runs parallel to the delivery workers' primary responsibilities of delivering orders. Workers devote their time to both job duties and works council activities. Often, these workers also undertake further voluntary training in labor law to better advise coworkers and to be more aware of their work-related rights. During our interviews, the bike couriers told us that the shift system, missing wage payments, and unfair dismissals are the three major issues among the riders. As response to the challenges faced by the workers at Lieferando and other similar platforms, the works councils have established the website https://sueyourboss.noblogs.org, aimed at providing support to workers with pre-prepared forms for various employment issues, such as missing payments or in cases of termination. Workers can easily download and complete these forms before handing them to their employers. On the one hand, we identify that bike couriers acting as 'advocates' for their coworkers, impose more tasks on themselves, which require careful daily time management and balancing of priorities, i.e., their workload increases. On the other hand, this further expense offers fruitful opportunities for workers to shape their work environment towards an AM-based work environment characterized by co-determination. In doing so, workers create themselves a better permanent work setting that enables them to perform relational and cognitive job crafting activities, such as arranging meetings with coworkers, thus creating meaningful relationships, and providing and receiving social support.

We identified two practices for **social expansion**, i.e., proactively looking for interactions with coworkers and customers, which increases workers' satisfaction, job meaningfulness, and work engagement in AM-based work settings. Algorithmic management leads to a fast work pace, specifically the confluence of real-time algorithmic tracking and the immediate matching of available couriers to the next delivery. As a result, workers experience a continuous stream of orders without any time for a rest or interaction with customers or coworkers. However, the bike couriers at Lieferando have adapted strategies to extend their social boundaries imposed by the job. The strategies include *acting as 'networkers' with coworkers* and *extending the interaction with customers, i.e., engaging in customer care.*

Assumably due to algorithmic behavioral restricting purposes, the rider app does not provide any feature for workers to interact with each other or to see on the map (which they also use for navigation purposes), which coworker is nearby. To cope better with this demanding working condition that was mentioned by several interviewees, bike couriers at Lieferando adopt further information and communication technologies (ICT), for instance, app-based messengers, such as 'WhatsApp' or 'Telegram' and 'Twitter' *to act as networkers* with coworkers:

> *"…there is the WhatsApp group, which connects riders with each other and within, there is also the 'union clique', which is trying to establish a works council in [City X]. But the main engagement is happening via WhatsApp, as it is the most practical".* (Interviewee John)

In addition, food delivery couriers exchange information about finding restaurants, to notify each other in the case of long waiting times at restaurants, or to familiarize new couriers with work processes, such as sick leave. Furthermore, through these communication channels, especially via 'Twitter', works councils and other active members keep workers informed about self-initiated events, such as self-organized bike repair cafés. Since this job crafting activity involves multiple workers (sometimes also from other food delivery companies), we see this as a collective form of social expansion. To do so, workers not only permanently extend their relational boundaries of work towards more interaction with coworkers, but also provide and receive daily social support, which increases satisfaction and well-being at work, as they are better able to perform daily relational and task crafting.

To extend the interaction with customers, i.e., to engage in customer care, bike couriers have adopted the following approach: Whether a customer has tipped them via the app becomes visible *after* an order is handed over, i.e., when the courier has already left the customer. We assume that such mechanisms of algorithmic restricting determine this workflow to keep workers motivated during the order delivery. However, some bike couriers use the instantaneous and comprehensive nature of algorithmic systems and confirm the delivery beforehand in their app: *"And also, a reason why I sometimes press 'delivered' a bit faster: then I see whether the customer has tipped online and then I can thank them for it."* (Interviewee Bruno). Although this tweak is not intended in the app's AM-determined workflows, we find this bottom-up usage of the algorithmic systems as a positive way to enrich the work role towards increased professionalism. Furthermore, if waiting times are repeatedly too long, couriers use the interactive nature of algorithmic systems with the following behavior:

> *"I let the dispatcher know if I'm waiting too long at the restaurant, because usually the next order is already in the pipeline…and then it would be totally delayed […] And you don't want to make the next customer wait an hour for his order"* (Interviewee Nick)

Although the food delivery couriers are not responsible for waiting times at restaurants—they are the ones who hand over the order to the customer. Therefore, they try to minimize the waiting times to satisfy customers, thus leaving a good impression regarding their employer Lieferando. It has to be stated that the activity of engaging in customer care is rather volatile. Therefore, it depends on the customer's willingness to reciprocate the courier's kindness, for example, by showing their gratitude with an appropriate tip. Therefore, we consider the activity of engaging in customers to be rather short-term but effective if customers recognize the couriers' efforts. We further find that doing this several times a day successfully leads to increased job satisfaction, an improved overall work experience, and an increased impact of work.

Approach Resource Crafting

Although algorithmic reward systems offer job resources, such as instant bonuses and performance feedback, our analysis indicates that they cannot fully compensate for the high demands workers are facing. These demands include an accelerated work pace, role ambiguity, low organizational support, and tight coordination and control mechanisms. Further, food delivery couriers are often only provided with the essential equipment and must rely on their own bicycles and mobile phones to deliver orders. However, we identified four practices of approach resource crafting that indicate that workers can quickly and easily increase and add resources to their work in a proactive manner.

We identified two practices for **work organization**, i.e., proactively applying small yet effective tactics to increase overall delivery performance, perceived impact on work outcomes, and work engagement: First, *workers ensure a smooth order process and try to keep the 'system running'* and second, *workers proactively increase performance statistics and bonus payments.*

Workers ensure a smooth order process and try to keep the 'system running' by trying to confirm the delivery of orders as quickly as possible, sometimes even beforehand, to speed up the order workflow.

> *"… for example, when I want to [complete a lot of orders] I stand at the doorbell and I ring and as soon as I notice that someone reacts and opens the door for me, I press "Order delivered" so that I'm quickly free again for the next one or so that things can move on quickly."* (Interviewee Tobias)

In proactively keeping the system running by using the interactivity and instantaneity of AM systems as an enabling factor for work organization workers first, show work engagement and second, regain autonomy with the short-term purpose to extend the task-related boundaries, e.g., they perform task crafting by self-prioritizing tasks. Further, workers try to keep the system running by trying to solve workflow-related inefficiencies by reporting issues, such as repeatedly long waiting times at the same restaurants via the app's in-built chat to the dispatchers:

> *"Then I just wrote [to the dispatcher] via the chat: as a hint […] that orders should only be given out to the riders when the order is really ready, because we then don't have to wait there the whole time until it's ready."* (Interviewee Tobias)

Facilitated by the interactivity of AM systems, the couriers proactively take on an additional short task to improve the work process even though it is not defined within the initial work role. Thus, these workers not only show job engagement but also help improve workflows daily with small crafting tweaks.

We further observed another resource-increasing job crafting practice pointing to *workers proactively increasing performance statistics and bonus payments*. Many interviewees reported feeling motivated by the algorithmically granted real-time rewards, such as bonus payments, in-app tips, and driven kilometers. For some workers, achieving a high daily mileage even became a practice of gaming: *"And in the meantime, so this daily workload is at the end when you're so full time, like 80 kilometers"* (Interviewee Aaron)

We further find that this job crafting practice of work organization improvement contains collective crafting components: *"The dispatcher receives a bonus if they have good riders and that motivates me."* (Interviewee Bastian). By increasing performance statistics and bonus payments, workers help to ensure that both themselves and coworkers have more job resources, that in turn help them to better cope with job demands in their daily work life. Algorithmic real-time rewarding (and, to some extent, algorithmic tracking) triggers an important cognitive process, e.g., by receiving real-time performance feedback. Thus, workers feel more motivated, engaged, and physically fit and have more financial stability and are proud of their work outcomes.

We observed one practice for **adoption**, i.e., proactively seeking ICT to enhance, simplify or facilitate work processes (e.g., order delivery, reporting issues). Our analysis shows that the bike couriers proactively upgrade their work equipment, for instance, by adding Bluetooth headphones to facilitate communication with coworkers or to connect with the hub or dispatchers. The Bluetooth headphones significantly increase their work efficiency: *"I use Bluetooth headphones to be informed in real-time about orders"* (Interviewee Aaron). We further observe that this self-determined use of ICT occurs in various job crafting practices. For instance, works councils (i.e., 'advocates' for riders) utilize additional ICT, such as websites and communication channels (e.g., messengers), to exchange information, and to invite coworkers to events (such as supportive demonstrations during court processes). 'Rider captains' use ticket-based project management (PM) software to keep track of reported issues, thus facilitating daily task crafting:

> *"Generally, when a bunch of drivers repeatedly complain about restaurants, for example, because they let them wait too long. Then it's kind of my job, to add this as task [i.e., ticket] in our 'Trello'."* (Interviewee Dan)

And in a more passive vein, all drivers use messenger apps (e.g., WhatsApp) to ask for directions or to socialize with colleagues during and after work:

> *"If someone can't find a restaurant, for example, because restaurants sometimes don't have a house number or are hidden in shopping malls with several floors...someone in our WhatsApp group might know directly where it is, then you ask so 'hey, where is that restaurant'?"* (Interviewee Louis)

By adopting ICT, i.e., upgrading work equipment, which their employer does not provide, workers derive more job satisfaction and have more fun at work, which leads to increased work efficiency.

We find one practice for **metacognition**, i.e., an *altering perception of algorithmic mechanisms*. Despite being constantly tracked in real-time, some workers in AM-based work settings manage to shift their mindset towards an alternative perception of orders, i.e., perceiving orders not only as mere jobs but also as a workout and an opportunity to discover new food places:

> *"Hey yeah, get on your bike now, just listen to an audio book or music and just cycle down. A mild summer evening, it's fun, keeps you fit, and you get your head clear and stuff like that."* (Interviewee Emre)

Generally, our respondents repeatedly indicated that it is primarily the freedoms that accompany the job, such as not having a supervisor or thoughts like 'getting paid for riding' and perceiving 'orders as workout', that make them to remain within Lieferando. Although not immediately visible, this altering perception contributes to long-term self-regulation and resilience, thus enabling them to better cope with the daily demands in AM-based work settings, such as forced compliance or constant tracking.

Avoidance Resource Crafting

Generally, due to their instantaneous nature, AM-based work settings are characterized by a high work pace and a high degree of physical stress. Bike couriers at Lieferando have to complete at least two orders per hour. In the case of pooled orders, it can be up to four orders per hour, which consumes significant physical energy. We find one strategy workers use to conserve their resources, such as stamina, by deliberately *withdrawing* from physically demanding situations. In some cities, workers must cover not only long distances but also considerable altitudes, which puts additional strain on them. To this end, they request permission from the dispatcher to refuse the order and pass it to another driver:

> *"Actually, I have to accept every order – now we have in [City X] the situation that if it goes 80, 90 meters in altitude, we have a regulation agreement with the company that we can refuse such things."* (Interviewee Louis)

Thus, workers use the interactivity and comprehensiveness of AM systems to their advantage and try to switch the order with another rider, which needs the permission of a dispatcher. By reducing tasks, which is also a form of task crafting, workers reduce strain, positively impacting their well-being at work.

Summary: Long-term vs. Short-term Job Crafting

The unique working conditions in the q-commerce sector, such as the high prevalence of short-term micro-tasks, the tight management regime, and the mechanisms and characteristics of AM, build rough paths for workers through which they must navigate themselves. Interestingly and impressively, workers find ways to escape the 'AM-worker dilemma.' In this regard, as expected, we find that job crafting emerges as one promising way to escape the restricting mechanisms. Surprisingly, workers still follow the rules of their work environment, i.e., they improve their well-being and still show compliant behavior. Further, especially supported by our comprehensive data analysis and especially the inductive coding cycles, we find that "time and temporality" (Weisman et al., 2022, p. 149) play an essential role concerning the job crafting activities, which is also in line with the considerations according to Daniels (2012) regarding time: "there may [...] be a match between the purpose for which a job is crafted over the longer-term and the purpose for which a job is crafted over the shorter term" (pp. 125-126).

Particularly we found that workers craft their jobs in two ways: First, they craft their jobs in a more 'traditional' way, i.e., by **long-term job crafting**. This is prevalent in three forms of approach role crafting, i.e.*, engaging as rider captain, advocate for riders* and *networkers* and to two forms of approach resource crafting, i.e., *increasing performance statistics and bonus payments*, and *altering perception of AM mechanisms*. These long-term job crafting activities have in common that they are characterized by a behavior that is systematically applied and sustained over a longer period. Further, these activities have a positive impact on job crafters' motivation, person-job fit and well-being at work. Moreover, these activities provide opportunities for workers to develop and maintain relationships, which enhances the meaningfulness of work and fosters resilience.

Second, we also found several instances of **short-term job crafting**. This applies to one form of approach role crafting, i.e., *engaging in customer care*, two forms of approach resource crafting, i.e., *keeping the system running* and *upgrading equipment*, and one form of avoidance resource crafting, i.e., *withdrawing from exhausting situations*. These short-term activities, which are especially prevalent in q-commerce, have in common that job crafters tend to apply them either in the course of situational demands or do not require a longer period of time to be prepared and weighed up. Thus, these practices are characterized by ad hoc activities, behaviors, and decisions that are predominantly instrumental in coping with or solving a specific issue that arises in a particular situation.

Table 1 comprehensively summarizes job crafting practices and their relation to time, offering a new perspective to these activities and their effectiveness on job satisfaction and performance in AM-based work settings. It also sheds light on the potential pathways of job crafting in such dynamic settings, where quick improvements align with the accelerated work pace of AM.

	Job Crafting Practices	Description	Benefits
Long-term	**Becoming a 'rider captain'** (Approach Role Crafting)	Using the interactivity and comprehensiveness of AM for educating new riders and executing extended management	Enrichment, increased person-job fit; "fighting" boredom
	Engaging as 'advocate' for riders (Approach Role Crafting)	Assisting co-workers in a self-organized manner with labor law-related concerns; arranging meetings	Attempt for bottom-up work design; creating meaningful relationships; receiving and providing social support
	Engaging as 'networker' (Approach Role Crafting)	Using and coordinating messengers for collective activities; maintaining accounts of social networks	Maintain relationships; increased interaction with coworkers; providing assistance
	Increasing performance statistics and bonus payments *(Approach Resource Crafting)*	Using the interactivity of AM systems to collectively increase real-time rewards for themselves and coworkers	Feeling motivated, proud, and physically fit; increased work engagement; improved financial stability
	Altering perception of AM mechanisms (Approach Resource Crafting)	Perceiving orders as workout and a chance to discover new places	Self-regulation; resilience; better coping with demands, i.e., forced compliance
Short-term	**Keep the system running** (Approach Resource Crafting)	Using the interactive and instantaneous nature of AM to confirm orders earlier to be free for the next order; trying to solve inefficiencies	Bottom-up improvement of workflows; increasing job enrichment regaining autonomy
	Engaging in customer care (Approach Role Crafting)	Confirming orders beforehand to thank customers; using interactivity of AM systems to reduce waiting times	Recognition; increased worker and customer satisfaction; improved work experience; increased impact
	Upgrading equipment (Approach Resource Crafting)	Using headphones to be connected to coworkers and dispatchers, using project management applications	Efficiency increase; facilitated communication; easier to engage in other job crafting practices
	Withdrawing from exhausting situations (Avoidance Resource Crafting)	Using the interactivity and comprehensiveness of AM systems to switch orders with the permission	Preservation of resources, i.e., reduced strain; increased well-being
Table 1. Long-term and Short-term Job Crafting Activities			

Discussion

This study intended to elaborate on the extent to which bike couriers engage in job crafting in a seemingly "hopeless place" (Kost et al., 2018). Due to the prevalence of a particularly tight management regime, as well as physically and cognitively demanding AM mechanisms, this initially seemed almost impossible. However, by conducting and analyzing 18 semi-structured interviews with bike couriers, we showed that individual and collective job crafting is a possible key to escape the 'AM-worker dilemma.' In particular, our analysis revealed the *centrality of time* in AM-based work settings as part of the q-commerce landscape. This observation leads us to emphasize two main interpretations of our findings and the basic difference between the workers' purposes for short-term and long-term job crafting, i.e., a dual facet of being 'job crafters':

First, algorithmic instantaneity and real-time tracking, as well as the high pace of work, are the main features of this 'new' work design (Zheng & Wu, 2022). Additionally, by completing orders on demand,

workers must synchronize their time to customers more than ever before while simultaneously experiencing idle times between orders or while waiting for the restaurant to prepare the food. In these times, workers feel restless and unfulfilled as they are constantly in anticipation of the next order in the pipeline. Thus, short-term job crafting serves to solve specific operational issues (Daniels, 2012), e.g., by keeping the system running or engaging in customer care.

Second, our study highlights that effective job crafting does not necessarily demand well-planned strategies to feel better at and about work and that small, short-term 'tweaks' are helpful to have a better work experience, such as proactively upgrading working equipment. Additionally, in line with earlier findings regarding job crafting, we show that, although the given working circumstances, workers manage to establish long-term job crafting strategies to not only generate a positive impact on organizational goals but also for themselves, such as increasing performance statistics and bonus payments.

Theoretical Contributions

The overarching contribution of our study lies in demonstrating the transformation of workers, being considered are 'mere datapoints' from an algorithmic management's view into job crafters, thus challenging the assumption that AM-based work environments generally hinder job crafting activities. For some practices, workers even used the characteristics of AM systems such as instantaneity and comprehensiveness to their advantage, albeit rather as a coping mechanism. From a theoretical perspective, our study contributes to two major shortcomings: First, we argue that the job crafting categories initially defined by Bruning and Campion (2018) appear to be overly restricted for contemporary work settings, especially within the q-commerce. Particularly concerning the increasing usage of (learning) technologies in organizations, we conclude that 'adoption', which is initially considered as a practice of approach resource crafting, occurs in every dimension of the role-resource approach-avoidance model of job crafting", thus being a more central part in the model. This aligns with Tarafdar and Saunders' (2022) finding that technology is an essential driver for job crafting. Second, while our analytical framework includes a temporal component by defining job crafting activities as either permanent or semi-permanent, it does not provide guidance on how to approach short-term job crafting. By adding time as an essential dimension into our initial framework, we were able to decipher small, short-term job crafting tweaks and problem solutions that fit into the micro-task prevalence-based work design and simultaneously help workers to increase meaningfulness and person-job fit, thus increasing their well-being at work, showing organizational loyalty and compliance.

Overall, our study contributes to the IS literature by integrating job crafting as an essential worker-induced practice. In contrast to resistance or workarounds described in previous studies, it proactively creates meaningfulness, well-being and person-job fit in a work environment that is highly characterized by "datafication" (Parent-Rocheleau & Parker, 2022, p. 10). Our findings enhance comprehension of how the characteristics of AM-based work settings impact worker behavior. This helps in recognizing worker-induced activities benefitting organizational goals. However, if workers prefer to be rather job crafters than workers, other challenges might arise. This, however, is beyond the scope of our study.

Practical Implications

Our study has two major practical implications: First, in finding new roles and practices in an AM-based work setting, we show possible leeway, where workers can individually and collectively shape their roles, increase their resources, and enhance their identity and personality. Based on our findings, we recommend that platform and similar organizations focus more on bottom-up work design by integrating job crafting approaches when developing algorithmic systems. This can, for instance, be fulfilled by built-in job crafting interventions (e.g., Verelst et al., 2021) as part of algorithmic recommending. In doing so, designing work that allows for self-discovery and engagement can promote positive attitudes toward monitoring and tracking. This is also in line with Demerouti's (2022) notion that digitalization and automation can "contribute to stimulating and "healthy" jobs if they are (a) designed to support people's work [and] (b) people are in control and can craft their use" (p. 1205). Second, as it is estimated that 43 million people in the European Union will be working for an app-based platform by 2025 (Barcevičius et al., 2021), our study, despite pointing out potentially positive aspects, is intended to set an example in that there is a need for overarching regulations for platform work. Thus, we call for setting up 'quality' standards that adhere for

the use of worker data, fair payment, and proactive acting, especially co-determination, which is also included in the "Global Manifesto for a Fairer Platform Economy" as suggested by Fairwork (2023).

Limitations and Future Research

Our outlined contributions should be interpreted with the following limitations in mind, thus suggesting multiple pathways for future research. By drawing on a sample of German workers in hybrid organizations, i.e., platform organizations with permanent contracts, workers have a more stable contractual situation compared to freelancers that are a further group of workers in AM-based work settings. Freelancers are not paid per hour but per delivery, thus facing different demands and having no possibility to extend their roles towards more job meaningfulness. Further, by relying on a small sample of 18 interviewees, our results might not represent other workers' job crafting practices, which is why we encourage researchers to conduct more research in AM-based work settings. In particular, ethnography (e.g., Brewer, 2000), experience sampling (e.g., Bolger & Laurenceau, 2013) or quantitative methods provide appropriate methodological approaches to strengthen our findings. Our study highlights the need for a comprehensive understanding of job crafting in the context of AM-based and similar work environments and the importance of designing work that promotes worker autonomy and agency to keep workers engaged (Parker & Grote, 2022).

Conclusion

Our study of how and why workers craft their jobs in the era of algorithmic management contributes to a growing body of literature which is concerned with a critical view of AM (e.g., Benlian et al., 2022; Wiener et al., 2021). While most studies rather emphasize the dark sides of AM, we show AM-based work settings can be shaped more positively, although there is still a large to-do list for organizations and policymakers, especially in terms of regulating platform work (Rosin, 2022). We thus hope that our study provides fruitful insights for future research and guidance for practitioners on how to include workers and job crafters in the development of algorithmic management systems to ensure a fair and worker-friendly future of work.

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